UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

May 4, 2020

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

SUBJECT: NINE MILE POINT NUCLEAR STATION – INTEGRATED INSPECTION REPORT 05000220/2020001 AND 05000410/2020001 AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION INSPECTION REPORT 07201036/2020001

Dear Mr. Hanson:

On March 31, 2020, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Nine Mile Point Nuclear Station. On April 22, 2020, the NRC inspectors discussed the results of this inspection with Mr. Peter Orphanos, Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

One finding of very low safety significance (Green) is documented in this report. This finding involved a violation of NRC requirements. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

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 Nine Mile Point Nuclear Station.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region I; and the NRC Resident Inspector at Nine Mile Point Nuclear Station.

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* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

X /RA/

Signed by: Erin E. Carfang

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

Docket Nos. 05000220 and 05000410
License Nos. DPR-63 and NPF-69

Enclosure:
As stated

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SUBJECT: NINE MILE POINT NUCLEAR STATION – INTEGRATED INSPECTION REPORT 05000220/2020001 AND 05000410/2020001 AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION INSPECTION REPORT 07201036/2020001 DATED MAY 4, 2020

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers:	05000220, 05000410, and 07201036
License Numbers:	DPR-63 and NPF-69
Report Numbers:	05000220/2020001, 05000410/2020001, and 07201036/2020001
Enterprise Identifier:	I-2020-001-0039 I-2020-001-0134
Licensee:	Exelon Generation Company, LLC
Facility:	Nine Mile Point Nuclear Station
Location:	Oswego, NY
Inspection Dates:	January 1, 2020 to March 31, 2020
Inspectors:	G. Stock, Senior Resident Inspector J. Dolecki, Resident Inspector B. Sienel, Resident Inspector J. Brand, Reactor Inspector J. Kulp, Senior Reactor Inspector E. Love, Transportation and Storage Safety Inspector J. Nicholson, Senior Health Physicist R. Rolph, Health Physicist J. Schoppy, Senior Reactor Inspector
Approved By:	Erin E. Carfang, Chief Reactor Projects Branch 1 Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Nine Mile Point Nuclear Station, 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 Replace Degraded Direct Current (DC) Motor Brushes on Safety-Related Motor-Operated Valve (MOV) Led to Failure to Close			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Barrier Integrity	Green NCV 05000220/2020001-01 Closed	[H.14] - Conservative Bias	71152
A self-revealed Green Finding and associated NCV of Title 10 of the *Code of Federal Regulations* (CFR) Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified when Exelon failed to correct a condition adverse to quality in 2017 which led to the failure of Unit 1 emergency cooling (EC) steam isolation valve IV-39-08R to close when called upon for system isolation.			

Additional Tracking Items

None.

PLANT STATUS

Unit 1 remained at or near rated thermal power throughout the inspection period.

Unit 2 began the inspection period at rated thermal power. On January 17, 2020, reactor power was reduced to 80 percent to perform a rod pattern adjustment. Operators restored power to 100 percent on January 18, 2020. On January 24, 2020, Unit 2 began end of cycle coastdown which continued until March 4, 2020. On March 4, 2020, Unit 2 operators inserted a manual scram due to a significant electro-hydraulic control system leak and entered their planned refueling outage, which had been scheduled to begin March 9, 2020. Unit 2 remained shut down for the remainder of the 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/readingrm/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." From January 1 – March 19, 2020, the inspectors performed plant status activities described in IMC 2515, Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

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 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 during which they conducted plant status activities as described in IMC 2515, Appendix D, and observed risk significant activities when warranted. In addition, resident and regional baseline inspections were evaluated to determine if all or portions 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 the cases where it was determined the objectives and requirements could not be performed remotely, management elected to reschedule the inspection to a later date.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

Impending Severe Weather Sample (IP Section 03.02) (1 Sample)

(1) The inspectors evaluated readiness for impending adverse weather for a blizzard warning on February 27, 2020.

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (5 Samples)

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

(1) Unit 1 containment spray 121 on January 13, 2020
(2) Unit 2 instrument air system on February 10, 2020
(3) Unit 2 Division II shutdown cooling on March 9, 2020
(4) Unit 2 spent fuel pool cooling on March 11, 2020
(5) Unit 2 Division II emergency diesel generator on March 27, 2020

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (4 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) Unit 2 turbine building, condenser, fire area 50, on March 10, 2020
(2) Unit 2 turbine building, feedwater heater bays, fire area 50, on March 10, 2020
(3) Unit 2 normal switchgear building, east switchgear room, fire area 79, on March 18, 2020
(4) Unit 2 control building, remote shutdown room 'A', fire area 17, on March 18, 2020

Fire Brigade Drill Performance Sample (IP Section 03.02) (1 Sample)

(1) The inspectors evaluated onsite fire brigade training and performance during an unannounced fire drill on February 18, 2020.

71111.07A - Heat Sink Performance

Annual Review (IP Section 03.01) (1 Sample)

The inspectors evaluated readiness and performance of:

(1) Unit 2 residual heat removal heat exchanger 2RHS*E1A

71111.08G - Inservice Inspection Activities (BWR)

BWR Inservice Inspection Activities Sample - Nondestructive Examination and Welding Activities (IP Section 03.01) (1 Sample)

(1) The inspectors verified that the reactor coolant system boundary, reactor vessel internals, risk-significant piping system boundaries, and containment boundary were appropriately monitored for degradation and that repairs and replacements were appropriately fabricated, examined and accepted by reviewing the following activities during the Nine Mile Point Unit 2 N2R17 refueling outage from March 10, 2020, to March 15, 2020:

03.01.a - Nondestructive Examination and Welding Activities.

- Automated phased array of the N2A recirculation nozzle to pipe dissimilar metal weld (2R17-APR-01)
- Manual ultrasonic test of the N2E recirculation nozzle inner radius 2RPV-ACX (R-08)
- Manual ultrasonic test of the N2E recirculation nozzle to reactor vessel shell weld 2RPV-KA-07 (R-11)
- Magnetic particle test of reactor core isolation cooling piping integral attachment 21-CS-57-08-FW302 (ISI-MT-20-004)
- IWE/IWL inspection (VT3) of suppression chamber exterior concrete wall on 215 level (ISI-VT-20-188)

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (2 Samples)

(1) The inspectors observed and evaluated Unit 1 operations personnel during main turbine emergency governor trip testing and reactor building emergency ventilation initiation testing on March 2, 2020.
(2) The inspectors observed and evaluated Unit 2 licensed operator performance in the control room during a manual reactor scram on March 4, 2020.

Licensed Operator Requalification Training/Examinations (IP Section 03.02) (2 Samples)

(1) The inspectors observed and evaluated a Unit 1 simulator evaluation that included an electrical fault on a safety related power board, a reactor building closed loop cooling system leak inside the drywell, and a failure to scram with an unisolable reactor water cleanup system leak on January 28, 2020.
(2) The inspectors observed and evaluated Unit 2 simulator training on a new digital feedwater level control modification on February 11, 2020.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (2 Samples)

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

(1) Maintenance Rule Periodic Assessment, October 1, 2017 - September 30, 2019, reviewed on February 7, 2020
(2) Unit 1 emergency diesel generator 103 air start system on March 2, 2020

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (6 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) Unit 1 elevated risk during a 115-kilovolt Line 1 outage to support an emergent grid repair on January 14, 2020
(2) Unit 1 elevated risk during an emergent main turbine electro-hydraulic pressure regulator filter replacement and pressure regulator swap on January 29, 2020
(3) Unit 2 emergent work on the 'C' instrument air compressor on February 10, 2020
(4) Unit 2 elevated risk during a planned reactor cavity flood up on March 8, 2020
(5) Unit 2 elevated risk during planned control rod drive mechanism replacements on March 13, 2020
(6) Unit 2 elevated risk during planned reactor cavity draindown on March 24, 2020

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (7 Samples)

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

(1) Unit 2 recirculation flow control valve 'A' due to a blown fuse on a hydraulic pressure unit on January 2, 2020
(2) Unit 2 standby gas treatment system due to air leaks identified during pneumatic supply and accumulator leak rate testing on January 13, 2020
(3) Unit 1 station battery 11 due to a ground on February 6, 2020
(4) Unit 1 core spray check valves due to elevated temperatures on February 20, 2020
(5) Unit 2 'A' spent fuel pool cooling pump due to decreasing oil level on February 24, 2020
(6) Unit 2 'B' residual heat removal pump following loss of shutdown cooling on March 9, 2020
(7) Unit 2 jet pumps 1 and 5 due to degradation caused by foreign material lodged in the inlet mixer nozzles on March 23, 2020

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (3 Samples)

The inspectors evaluated the following temporary or permanent modifications:

(1) Permanent Modification: Unit 2 Engineering Change Package ECP-18-000691, Remove Unit 2 Reactor Recirculation Pump Auto Trip Low Speed Transfer on Differential Temperature
(2) Permanent Modification: Unit 2 Engineering Change Package ECP-19-000301, Upgrade Unit 2 MSIV [main steam isolation valve] Internals
(3) Permanent Modification: Unit 2 Engineering Change Package ECP-18-000373, Diesel Generator Governor Replacement

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (4 Samples)

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

(1) Unit 2 'C' instrument air compressor following motor replacement on March 1, 2020
(2) Unit 2 'E' service water strainer following maintenance on March 3, 2020
(3) Unit 2 'A' source range detector following replacement on March 9, 2020
(4) Unit 1 control room ventilation system following system maintenance on March 24, 2020

71111.20 - Refueling and Other Outage Activities

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

(1) The inspectors evaluated Unit 2 Refueling Outage N2R17 activities from March 4, 2020 through March 31, 2020.

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

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

(1) N2-OSP-EGS-M@001, Diesel Generator and Diesel Air Start Valve Operability Test Division II, on February 13, 2020
(2) N2-OSP-EGS-R007, Operating Cycle Diesel Generator Simulated Loss of Offsite Power Division III, on February 26, 2020
(3) N2-OSP-RMC-R001, Mode Switch Shutdown Position Rod Block Channel Functional Test, on March 12, 2020

Inservice Testing (IP Section 03.01) (2 Samples)

(1) N1-ST-Q8A, Liquid Poison Pump 11 and Check Valve Operability Test, on January 13, 2020
(2) N2-OSP-SLS-R001, Standby Liquid Control Manual Initiate Actuation and ASME XI Pressure Test, on March 16, 2020

Containment Isolation Valve Testing (IP Section 03.01) (2 Samples)

(1) N2-OSP-MSS-003, Main Steam Isolation Valve Leak Rate Test (Inboard Static Head of Water), on March 9, 2020
(2) N2-OSP-CNT-008, Local Leak Rate Testing of Drywell to Suppression Chamber Vacuum Breaker, on March 19, 2020

71114.06 - Drill Evaluation

Select Emergency Preparedness Drills and/or Training for Observation (IP Section 03.01) (1 Sample)

(1) The inspectors evaluated the conduct of a routine Exelon emergency preparedness drill on February 11, 2020.

Drill/Training Evolution Observation (IP Section 03.02) (1 Sample)

The inspectors evaluated:

(1) A Unit 1 simulator evaluation which included a reactor building closed loop cooling system leak inside the drywell, a failure to scram with an unisolable reactor water cleanup system leak, and ultimately the declaration of a Site Area Emergency on January 28, 2020

RADIATION SAFETY

71124.01 - Radiological Hazard Assessment and Exposure Controls

Instructions to Workers (IP Section 03.02) (1 Sample)

(1) The inspectors evaluated radiological protection-related instructions to plant workers.

Radiological Hazards Control and Work Coverage (IP Section 03.04) (1 Sample)

The inspectors evaluated in-plant radiological conditions during facility walkdowns and observation of radiological work activities.

(1) Undervessel control rod drive maintenance. Dose gradient from head to chest.

High Radiation Area and Very High Radiation Area Controls (IP Section 03.05) (1 Sample)

The inspectors evaluated licensee controls of the following High Radiation Areas and Very High Radiation Areas:

(1)
- Unit 2 north drywell entrance
- Unit 2 traversing incore probe (TIP) room (Very High Radiation Area)
- Unit 2 'A' reactor water cleanup pump room
- Unit 2 'B' reactor water cleanup pump room
- Unit 2 drywell equipment drain tank pump room
- Unit 2 drywell floor drain tank pump room
- Unit 2 reactor building drain pump room

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

IE01: Unplanned Scrams per 7000 Critical Hours Sample (IP Section 02.01) (2 Samples)

(1) Unit 1 (January 1, 2019 - December 31, 2019)
(2) Unit 2 (January 1, 2019 - December 31, 2019)

IE03: Unplanned Power Changes per 7000 Critical Hours Sample (IP Section 02.02) (2 Samples)

(1) Unit 1 (January 1, 2019 - December 31, 2019)
(2) Unit 2 (January 1, 2019 - December 31, 2019)

IE04: Unplanned Scrams with Complications (USwC) Sample (IP Section 02.03) (2 Samples)

(1) Unit 1 (January 1, 2019 - December 31, 2019)
(2) Unit 2 (January 1, 2019 - December 31, 2019)

71153 - Followup of Events and Notices of Enforcement Discretion

Event Followup (IP Section 03.01) (2 Samples)

(1) The inspectors evaluated the licensee's response to a Unit 2 manual reactor scram following a turbine electro-hydraulic control fluid leak on March 4, 2020.
(2) The inspectors evaluated the licensee's response to a Unit 2 loss of shutdown cooling on March 5, 2020.

OTHER ACTIVITIES – TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

60854.1 - Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants

Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants (1 Sample)

(1) The inspectors evaluated Exelon's performance during NRC-observed pre-operational dry run activities that were performed in order to fulfill requirements in the Certificate of Compliance (CoC) No. 1032, Amendment 1, Condition 9. The inspectors observed dry run activities on March 16-17, 2020. Specifically, the inspectors observed or reviewed the following activities:
    - Closure welding of a multipurpose canister mock-up including lid to shell, port covers, and closure ring
    - Non-destructive weld evaluations including visual and penetrant testing
    - Simulated radiological field surveys and radiation protection coverage of welding activities
    - A recording of PCI Energy Services LLC welding personnel cutting open a welded canister mock-up, removing the port covers and lid, that was witnessed by NRC personnel

INSPECTION RESULTS

<table>
<tr><td colspan="4">Failure to Replace Degraded Direct Current (DC) Motor Brushes on Safety-Related Motor-Operated Valve (MOV) Led to Failure to Close</td></tr>
<tr><td>Cornerstone</td><td>Significance</td><td>Cross-Cutting Aspect</td><td>Report Section</td></tr>
<tr><td>Barrier Integrity</td><td>Green
NCV 05000220/2020001-01
Closed</td><td>[H.14] - Conservative Bias</td><td>71152</td></tr>
<tr><td colspan="4">A self-revealed Green Finding and associated non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (CFR) Part 50, Appendix B, Criterion XVI, “Corrective Action,” was identified when Exelon failed to correct a condition adverse to quality in 2017 which led to the failure of Unit 1 emergency cooling (EC) steam isolation valve IV-39-08R to close when called upon for system isolation.</td></tr>
<tr><td colspan="4">Description: Safety-related MOVs control fluid flow in plant systems and licensees rely on the operability of certain MOVs to satisfy technical specification requirements. Degraded DC motor brush-to-commutator contact can affect the ability of safety-related MOVs to perform their safety function. Specifically, inadequate contact between the brushes and commutator can result in excessively high resistance that can prevent the actuator from moving the valve (i.e., perform the safety function).

The Unit 1 emergency cooling system safety-related MOVs close, to isolate the line, in the event of a steam line break to maintain barrier integrity. In April 2017, Exelon generated IR 03993689 due to the failure of the emergency cooling system steam outlet isolation valve, IV-39-08R, to close while performing a surveillance test. Investigation of IV-39-08R determined the failure was a result of the DC motor brushes' inadequate contact with the commutator due to corrosion buildup on the brush holders, which prevented the brushes from maintaining contact as they continued to wear. The brush holders were cleaned and the existing brushes were reinstalled. In October 2019, IV-39-08R failed to close after a fault in the analog trip system resulted in a system isolation signal, which closes steam isolation valves IV-39-08R and IV-39-10R. Valve IV-39-10R successfully isolated, however IV-39-08R failed to close as required. Exelon generated IR 04292465 to document the failure. Investigation into the 2019 failure to isolate found excessive carbon dust buildup on the brush holders which restricted brush movement and limited brush contact. Excessive carbon dust buildup is indicative of uneven wear on the motor brushes. Exelon determined that the failure in 2017 had hardened the contact surface of the brushes. The existing brushes were reused after the 2017 failure and the hardened contact surface led to uneven wear and the excessive carbon dust buildup.

Corrective Actions: Exelon generated IR 04292465 in October 2019 when IV-39-08R failed to close during the isolation of emergency condenser loop 12. Corrective actions included replacing the motor brushes with new brushes and cleaning the commutator and brush holders. Other actions included performing an extent of condition review and creating work orders to replace the DC motor and brush holders on safety-related valves based on observed conditions in the next 2 years or next outage.

Corrective Action References: IRs 03993689, 04292465, 04292868, and 04301820</td></tr>
</table>

Performance Assessment:

Performance Deficiency: The inspectors determined that in April 2017, Exelon failed to replace defective DC motor brushes for a safety-related MOV, contrary to 10 CFR Part 50 Appendix B, Criterion XVI, "Corrective Action," that was reasonably within Exelon's ability to foresee and correct and therefore a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Configuration Control attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, the licensee's failure to replace defective DC motor brushes for IV-39-08R in emergency condenser loop 12 resulted in the valve not being able to close (safety function) in October 2019 when called upon for a system isolation.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The inspectors utilized IMC 0609, Appendix A, Exhibit 3, "Barrier Integrity Screening Questions." As a result, the inspectors determined the finding was of very low safety significance (Green) because the finding did not represent an actual open pathway in the physical integrity of reactor containment (valves, airlocks, etc.), containment isolation system (logic and instrumentation), and heat removal components.

Cross-Cutting Aspect: H.14 - Conservative Bias: Individuals use decision making-practices that emphasize prudent choices over those that are simply allowable. A proposed action is determined to be safe in order to proceed, rather than unsafe in order to stop. A failure on IV 39-08R in April 2017 led to uneven brush wear and hardening of the brush contact surface in the DC motor. An inspection was done on the brushes and commutator after the failure which did not identify significant degradation, however failures such as the one in April 2017 are known to lead to degraded brush condition. The decision was made to reuse the existing brushes and in October 2019, IV-39-08R failed to close due to inadequate brush contact which was the result of reusing the degraded brushes.

Enforcement:

Violation: Title 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions" requires that, in part, "measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected."

Contrary to the above, Exelon failed to establish measures that assure conditions adverse to quality are corrected when the defective DC motor brushes on IV-39-08R, a safety-related MOV, were reused following the failure to isolate during surveillance testing in April 2017. This resulted in emergency condenser steam isolation valve, IV-39-08R, failing to close in October 2019.

Enforcement Action: This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy.

EXIT MEETINGS AND DEBRIEFS

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

- On April 22, 2020, the inspectors presented the integrated inspection results to Mr. Peter Orphanos, Site Vice President, and other members of the licensee staff.
- On March 14, 2020, the inspectors presented the Inservice Inspection inspection results to Mr. Michael Faivus, Senior Manager of Engineering Programs, and other members of the licensee staff.
- On March 17, 2020, the inspectors presented the Independent Spent Fuel Storage Installation inspection results to Mr. Michael Cazzolli, Senior Manager Dry Cask Storage, and other members of the licensee staff.
- On March 17, 2020, the inspectors presented the Radiation Hazards and Exposure Control inspection results to Mr. Michael Gray, Radiation Protection Manager, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
60854.1	Miscellaneous	Certificate of Compliance (CoC) No. 1032	HI-STORM Flood/Wind (FW) Multipurpose Canister (MPC) Storage System	Amendment 1
	Procedures	PI-CNSTR-OP-HLTC-H-01	Closure Welding of Holtec Multi-Purpose Canisters-HI-STORM 100, HI-STAR100, HI-STORM FW & UMAX Systems	Rev 4
71111.01	Miscellaneous	OP-AA-108-111-1001	Severe Weather and Natural Disaster Guidelines	017
	Procedures	N1-OP-64	Meteorological Monitoring	01900
		N2-OP-102	Meteorological Monitoring	02500
		N2-SOP-90	Natural Events	00800
71111.04	Corrective Action Documents	03950231 04059302 04288111 04325279 04325282		
	Drawings	019-001	Piping & Instrumentation Diagram Instrument & Service Air Fundamental	01.00
		C-18012-C	Reactor Containment Spray System P&I Diagram	2
		PID 104A	Piping and Instruction Diagram Standby Diesel Generator System	31
		PID 104C	Piping and Instruction Diagram Standby Diesel Generator System	9
		PID 104D	Piping and Instruction Diagram Jacket Water Standby Diesel Generator System	7
		PID 104E	Piping and Instruction Diagram Lube Oil Standby Diesel Generator System	8
		PID 104F	Piping and Instruction Diagram Fuel Oil Standby Diesel Generator System	5
		PID-31A, E, and F	Residual Heat Removal System Piping & Instrumentation Diagram	26, 21, & 16
		PID-38A and C	Fuel Pool Cooling & Clean Up Piping & Instrumentation	16 & 15

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Diagram	
	Miscellaneous	NRC Information Notice 93-45	Degradation of Shutdown Cooling System Performance	June 16, 1993
		NRC Information Notice 93-93	Inadequate Control of Reactor Coolant System during Shutdown	December 8, 1993
		NRC Information Notice 96-05	Partial Bypass of Shutdown Cooling Flow from the Reactor Vessel	January 18, 1996
	Procedures	N2-OP-100A	Standby Diesel Generators	02800
		N2-OP-19	Instrument and Service Air System	02800
71111.05	Fire Plans	N2-FPI-PFP-0201	Unit 2 Pre-Fire Plans	06
	Miscellaneous	OP-AA-201-003	Attachment 3, Fire Drill Scenario, Unit 2 Turbine Building Elevation 277' West Switchgear Room	February 18, 2020
		OP-AA-201-003	Attachment 3, Fire Drill Scenario, Unit 1 Turbine Building Elevation 261' PB 152C	February 19, 2020
	Procedures	N2-FPI-PFP-0201	Unit 2 Pre-Fire Plans	06
		OP-AA-201-003	Fire Drill Performance	17
		TQ-AA-224-F020	Course Attendance Sheet	05
71111.07A	Miscellaneous	2RHS*E1A	Heat Exchanger Inspection Report	March 16, 2020
	Procedures	ER-AA-340	GL [Generic Letter] 89-13 Program Implementing Procedure	9
		ER-AA-340-1002	Service Water Heat Exchanger Inspection Guide	9
	Work Orders	C93672353		
71111.08G	Corrective Action Documents Resulting from Inspection	4326616		
71111.11Q	Procedures	N1-OP-10	Reactor Building Heating, Cooling, and Ventilation System	03000
		N1-PM-Q7	Quarterly Main Turbine Testing and Generator Core Monitor Testing	00500
71111.12	Corrective Action Documents	04061009		
		04068720		
		04085429		
		04085431		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Miscellaneous		Maintenance Rule 18-10 - Periodic (a)(3) Assessment	00
	Procedures	ER-AA-320	Maintenance Rule Implementation Per NEI 18-10	00
	Work Orders	C93283487		
71111.13	Corrective Action Documents	04313524		
	Corrective Action Documents Resulting from Inspection	04310225		
	Miscellaneous	ECP-18-000086, TSTF 542	PV Water Inventory Control (RPV WIC) Implementation at Nine Mile Point Unit 2	01
		N2-FHP-003	Refueling Manual	02000
	Procedures	N1-OP-31	Tandem Compound Reheat Turbine	05200
		N2-OSP-LOG-D001	Daily Checks Log	02500
		N2-PM-082	RPV [Reactor Pressure Vessel] Flood Up/Draindown	015T1
		N2-PM-082	RPV Flood Up / Draindown	01600
		OP-AA-107	Integrated Risk Management	002
		OP-AA-107	Integrated Risk Management	002
		OP-NM-108-117	Protected Equipment Program at Nine Mile Point	0500
		OU-NM-103-101	Shutdown Safety Management Program	00500
		WC-AA-101	On-Line Work Control Process	029
71111.15	Corrective Action Documents	02011075		
		02017465		
		04291360		
		04299129		
		04299670		
		04301070		
		04301071		
		04305757		
		04306009		
		04320370		
		04324166		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		04328823		
	Drawings	PID-31A	Piping and Instrumentation Diagram Residual Heat Removal System	26
	Miscellaneous	125VDCDISTSYS	125VDC Distribution System Analysis	0
	Procedures	N1-OP-47A	125 VDC Power System	03200
		N2-ISP-GTS-R@001	Standby Gas Treatment System Pneumatic Supply/Accumulator Leak Rate Test	00600
		N2-OP-29	Reactor Recirculation System	03000
		N2-OP-31	LINEUPS, Residual Heat Removal System - Lineups	00300
		N2-OP-61B	Standby Gas Treatment System	01700
		N2-OSP-RCS-R004	Recirc Flow Control Valve Operability Test	00600
		N2-SOP-08	Unplanned Power Changes	013T1
		OP-AA-108-115	Operability Determination	022
	Work Orders	C93479858		
		C93614049		
71111.18	Corrective Action Documents	04148579		
		04318072		
		04327204		
		04328107		
	Drawings	20014193	26" MSIV Cover and Internals Rockwell Mod Nine Mile Point, Unit 2	10
	Engineering Changes	18-000373	Emergency Diesel Generator Governor Replacement	1
		ECP-18-000691	Remove Unit 2 Reactor Recirculation Pump Auto Trip Low Speed Transfer on Differential Temperature	0
		ECP-19-000301	NMP #2 MSIV Internals Upgrade	0
	Procedures	8003015-P1	Governor Modification Installation Procedure	0
		LS-AA-104	Exelon 50.59 Review Process	011
		LS-AA-104-1004	50.59 Evaluation Form	007
	Work Orders	C93673566		
		C93691143		
		C93696744		
71111.19	Corrective Action	04318729		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Documents	04320006		
		04324847		
		04325930		
	Procedures	ER-AA-321	Administrative Requirements for Inservice Testing	013
		MA-AA-716-004	Conduct of Troubleshooting	17
		N1-MPM-210-552	Control Room Ventilation System	00800
		N2-IMP-NMS-R008	IRM/SRM Detector/Cable Connector Maintenance and Testing	Completed on March 8, 2020
		N2-IPM-NMS-@002	Source Range Monitor (SRM) Discriminator Curve Testing	Completed on March 8, 2020
		N2-ISP-NMS-Q@108	Source Range Monitor Channel Calibration	Completed on March 8, 2020
		N2-ISP-NMS-W@008	Source Range Monitor and Rod Block Trip Channel Functional Test	Completed on March 9, 2020
	Work Orders	C93664635		
		C93675612		
		C93687770		
		C93691963		
71111.22	Procedures	ER-AA-321	Administrative Requirements for Inservice Testing	013
		N1-ST-Q8A	Liquid Poison 11 Pump and Check Valve Operability Test	1500
		N2-OSP-CNT-008	Local Leak Rate Testing of Drywell to Suppression Chamber Vacuum Breaker	00000
		N2-OSP-EGS-M@001	Diesel Generator and Diesel Air Start Valve Operability Test - Division I and II	02200
		N2-OSP-EGS-R007	Operating Cycle Diesel Generator Simulated Loss of Offsite Power Division III	00900
		N2-OSP-MSS-003	Main Steam Isolation Valve Leak Rate Test (Inboard Static Head of Water)	00100
		N2-OSP-RMC-R001	Mode Switch Shutdown Position Rod Block Channel Functional Test	00400

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		N2-OSP-SLS-R001	Standby Liquid Control Manual Initiate Actuation and ASME XI Pressure Test	00800
		WC-AA-111	Surveillance Program Requirements	7
	Work Orders	C93672632		
		C93672682		
71124.01	Corrective Action Documents	034100009		
		04271600		
		042720052		
		04274185		
		04274187		
		04284643		
		04290635		
		04304586		
		043100014		
	Procedures	NISP-RP-004	Posting and Labeling	Revision 1
		NISP-RP-005	Locked High Radiation Area (LHRA) Key Control	Revision 1
		NISP-RP-007	Control of Radioactive Material (RAM)	Revision 1
		RP-AA-376-1001	Radiological Posting, Labeling, and Marking Standard	Revision 16
		RP-AA-400-001	Very High Radiation Area (VHRA) Controls	Revision 6
		RP-AA-460	Locked High Radiation Area (LHRA) Key Control	Revision 37
		RP-AA-503-F-01	Unconditional Release Instructions using the Small Articles Monitor (SAM)	Revision 4
	Radiation Surveys		NMP-2-20-00502 Drywell 261' General Area Air Sample	3/9/2020 @ 0330
			NMP-2-20-00502 Drywell 261' General Area Air Sample	3/9/2020 @ 1815
			NMP-2-20-00502 Drywell 261' General Area Air Sample	3/10/2020 @ 2325
			NMP-2-20-00502 Drywell 261' South General Area Air Sample	3/9/2020 @ 0345
		2020-066071	Drywell Under Vessel	3/6/2020 @ 1000
		2020-066177	Drywell 261' General Area Air Sample RWP 503	3/8/2020 @

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
				0815
		2020-067186	Reactor Building 353' Refuel Floor	3/15/2020 @ 0717
		2020-067495	Unit 2 Drywell Under Vessel	3/17/2020 @ 2037
		2020-067550	Reactor Building 353' Refuel Floor	3/18/2020 @ 1500
	Radiation Work Permits (RWPs)	NM-2-20-00506	Drywell Scaffolding Activities	1/1/2020
		NM-2-20-00513	Drywell Control Rod Drive (CRD) Exchange	1/1/2020
		NM-2-20-00518	Drywell In Service Inspections (ISI) Activities	1/1/2020
		NM-2-20-00901	Reactor Disassembly/Reassembly Activities	1/1/2020
		NM-2-20-00902	Refuel Floor Support Activities	1/1/2020
		NM-2-20-00903	Reactor Cavity Work Platform	1/1/2020
71151	Corrective Action Documents	04233592		
		04239884		
		04290993		
		04293947		
	Miscellaneous	NEI 99-02	Regulatory Assessment Performance Indicator Guideline	7
71153	Corrective Action Documents	04323670		
		04324166		
		04324195		
		04325119		
		04325198		
	Drawings	PID-23B	Turbine Hydraulic Oil System	10
	Procedures	N2-OP-31	Residual Heat Removal System	03600
		N2-SOP-101C	Reactor Scram	01400
		N2-SOP-101D	Rapid Power Reduction	01100
		N2-SOP-31	Loss of Shutdown Cooling	00601