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

November 6, 2019

Mr. Bryan C. Hanson
Senior Vice President, Exelon Generation Company, LLC
President and Chief Nuclear Officer, Exelon Nuclear
Exelon Generation Company, LLC
4100 Winfield Road
Warrenville, IL 60555

SUBJECT: NINE MILE POINT NUCLEAR STATION – INTEGRATED INSPECTION REPORT 05000220/2019003 AND 05000410/2019003 AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION INSPECTION REPORT 07201036/2019001

Dear Mr. Hanson:

On September 30, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Nine Mile Point Nuclear Station. On October 23, 2019, 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 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.

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.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at http://www.nrc.gov/reading-rm/adams.html and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

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

Docket Nos. 05000220, 05000410,
and 07201036
License Nos. DPR-63 and NPF-69

Enclosure:
As stated

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SUBJECT: NINE MILE POINT NUCLEAR STATION – INTEGRATED INSPECTION REPORT 05000220/2019003 AND 05000410/2019003 AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION INSPECTION REPORT 07201036/2019001 DATED NOVEMBER 6, 2019

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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:	05000220/2019003, 05000410/2019003, and 07201036/2019001
Enterprise Identifier:	I-2019-003-0036 I-2019-001-0074
Licensee:	Exelon Generation Company, LLC
Facility:	Nine Mile Point Nuclear Station
Location:	Oswego, NY
Inspection Dates:	July 1, 2019 to September 30, 2019
Inspectors:	G. Stock, Senior Resident Inspector J. Dolecki, Resident Inspector B. Sienel, Resident Inspector E. Burket, Senior Reactor Inspector O. Masnyk Bailey, Health Physicist J. Nicholson, Senior Health Physicist R. Rolph, Health Physicist J. Steward, Acting Senior Resident 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 Obtain Station ALARA Committee Approval for a Dose Estimate Change Which Resulted in Collective Dose Greater Than 5 Person-Rem and Exceeding the Estimate by More Than 50 Percent			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Occupational Radiation Safety	Green NCV 05000220/2019003-01 Open/Closed	[H.4] - Teamwork	71124.02
The inspectors identified a finding and Green NCV of Technical Specification 6.4.1, "Administrative Controls, Procedures," for Exelon's failure to follow its procedure to maintain doses as low as reasonably achievable (ALARA) during the most recent Unit 1 refueling outage. Specifically, Exelon did not follow procedure RP-AA-401, "ALARA Planning and Controls," and did not obtain Station ALARA Committee review when raising the dose estimate for drywell main steam isolation valve activities. This resulted in the dose estimate changing from a Category 1 to a Category 2 work activity which required approval by the Station ALARA Committee in accordance with Exelon procedure RR-AA-401, ALARA Program, step 4.2.7(3). The site had additional exposure estimate increases which resulted in the accumulated dose exceeding 5 person-rem and exceeding the original estimate by greater than 50 percent.			

Additional Tracking Items

None.

PLANT STATUS

Unit 1 began the inspection period at 100 percent power. On August 4, 2019, Unit 1 experienced a trip of the reactor recirculation motor-generator 11 resulting in power decreasing to approximately 87 percent. Later that day, operators raised power using the four remaining reactor recirculation motor-generators and reached 100 percent. On August 6, 2019, following repairs to the reactor recirculation motor-generator 11, operators performed a planned power reduction to approximately 85 percent to place the component in service. Later that day, Unit 1 was restored to 100 percent power. Unit 1 remained at or near 100 percent power for the remainder of the inspection period.

Unit 2 began the inspection period at 100 percent power. On September 20, 2019, operators performed a planned power reduction to approximately 70 percent to conduct quarterly turbine valve reactor protection system testing, control rod sequence exchange, and scram time testing. On September 22, 2019, Unit 2 was restored to 100 percent power. Unit 2 remained at or near rated thermal power 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/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed plant status activities described in IMC 2515 Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

Summer Readiness Sample (IP Section 03.01) (1 Sample)

(1) The inspectors evaluated summer readiness of alternating current offsite and alternate power systems on August 14, 2019.

External Flooding Sample (IP Section 03.04) (1 Sample)

(1) The inspectors evaluated readiness to cope with external flooding on September 30, 2019.

71111.04Q - 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 emergency cooling system 11 on July 12, 2019
(2) Unit 2 Division III diesel generator on August 22, 2019
(3) Unit 2 high pressure core spray system on September 4, 2019
(4) Unit 1 emergency service water system 11 on September 12, 2019
(5) Unit 1 emergency diesel generator 103 on September 24, 2019

71111.05Q - Fire Protection

Quarterly Inspection (IP Section 03.01) (8 Samples)

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

(1) Unit 1 reactor building 237', emergency escape hatch room, fire area 1, on June 14, 2019
(2) Unit 1 reactor building 281', spent fuel pool cooling pump room, fire area 1, on June 14, 2019
(3) Unit 1 reactor building 237', north instrument room, fire area 1, on June 14, 2019
(4) Unit 1 reactor building 340', refuel floor, fire area 1, on June 14, 2019
(5) Unit 2 reactor building 215', 'A' reactor water cleanup pump room, fire area 34, on June 14, 2019
(6) Unit 2 reactor building 215', 'B' reactor water cleanup pump room, fire area 35, on June 14, 2019
(7) Unit 1 261' emergency diesel generator 103 room, fire area 19, on September 24, 2019
(8) Unit 1 261' power board 103 room, fire area 24, on September 24, 2019

71111.07T - Heat Sink Performance

Triennial Review (IP Section 02.02) (4 Samples)

The inspectors evaluated heat exchanger/sink performance on the following:

(1) Unit 1 reactor building closed loop 11 cooling heat exchanger
(2) Unit 1 ultimate heat sink
(3) Unit 2 'A' residual heat removal heat exchanger
(4) Unit 2 'B' low pressure core spray room cooler

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 operator performance during response to an oil leak on the feedwater pump 13 clutch actuator package on July 18, 2019.
(2) The inspectors observed and evaluated a Unit 2 downpower to 70 percent for a rod pattern adjustment and scram time testing on September 20, 2019.

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

(1) The inspectors observed and evaluated a Unit 1 simulator evaluation which included the inadvertent opening and failure to close of an electromatic relief valve, a high-power failure to scram, and a steam leak into primary containment on August 20, 2019.
(2) The inspectors observed and evaluated a Unit 2 simulator evaluation which included reactor power oscillations, a failure to scram, and an un-isolable steam line break in the turbine building on September 5, 2019.

71111.12 - Maintenance Effectiveness

Routine Maintenance Effectiveness Inspection (IP Section 02.01) (2 Samples)

The inspectors evaluated the effectiveness of routine maintenance activities associated with the following equipment and/or safety significant functions:

(1) Maintenance Rule Periodic Assessment - October 1, 2015 to September 30, 2017; completed on July 12, 2019
(2) Unit 2 instrument air system on August 2, 2019

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (6 Samples)

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

(1) Unit 1 emergent work associated with feedwater pump 13 actuator package oil leak on July 18, 2019
(2) Unit 1 emergent work associated with reactor recirculation pump 11 trip on August 6, 2019
(3) Unit 2 elevated risk condition during a severe thunderstorm warning followed by planned maintenance on the Division III diesel generator on August 21, 2019
(4) Unit 2 elevated risk condition during planned Division III diesel fuel injector replacements on September 4, 2019
(5) Unit 1 elevated risk during a 345-kilovolt Line 8 outage to support a grid repair on September 20, 2019
(6) Unit 1 elevated risk during planned emergency diesel generator 102 maintenance on September 25, 2019

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 02.02) (6 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

(1) Unit 2 service water system and supported systems following chemical evacuation treatment on July 16, 2019
(2) Unit 1 intermediate range monitors following trend in downscale indications on July 16, 2019
(3) Unit 1 high pressure coolant injection system during a 115-kilovolt grid disturbance on July 17, 2019
(4) Unit 1 containment spray raw water intertie valve 93-72 failure to fully open on July 25, 2019
(5) Unit 2 residual heat removal system during replacement of relief valve 2RHS*RV57A on August 27, 2019
(6) Unit 1 spent fuel pool Boraflex rack without one cell blocker installed on September 23, 2019

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (7 Samples)

The inspectors evaluated the following post-maintenance tests:

(1) Unit 1 containment spray raw water pump strainer 93-06 maintenance on August 6, 2019
(2) Unit 2 Division III diesel generator crankcase pressure switch replacement on August 21, 2019
(3) Unit 1 conductivity monitor replacement on September 3, 2019
(4) Unit 2 Division III diesel generator fuel injector replacements on September 6, 2019
(5) Unit 1 emergency service water pump 12 replacement on September 12, 2019
(6) Unit 1 emergency condenser vent to torus block valve preventive maintenance on September 17, 2019
(7) Unit 1 emergency diesel generator 102 four-year preventive maintenance on September 27, 2019

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Inservice Testing (IP Section 03.01) (3 Samples)

(1) N2-OSP-RHS-Q@005, RHR System Loop B Pump and Valve Operability Test, System Integrity Test and ASME XI Pressure Test, on July 3, 2019
(2) N1-ST-Q6C, Containment Spray System Loop 112 Quarterly Operability Test, on July 31, 2019
(3) N1-ST-Q6B, Containment Spray System Loop 121 Quarterly Operability Test, on August 7, 2019

FLEX Testing (IP Section 03.02) (1 Sample)

(1) S-PM-001, Flex 3419MX Water Pump Test, on August 14, 2019

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 September 5, 2019.

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

The inspectors evaluated:

(1) A Unit 1 simulator training evaluation which included the inadvertent opening and failure to close of an electromatic relief valve, a high-power failure to scram, a steam leak outside primary containment, and ultimately the declaration of a General Emergency on August 20, 2019.

RADIATION SAFETY

71124.01 - Radiological Hazard Assessment and Exposure Controls

Contamination and Radioactive Material Control (IP Section 02.03) (1 Sample)

The inspectors evaluated:

(1) Licensee processes for monitoring and controlling contamination and radioactive material by observing equipment and material leaving the radiologically controlled area, radiation protection technicians surveying equipment, and reviewing release procedures.

71124.02 - Occupational ALARA Planning and Controls

Radiological Work Planning (IP Section 02.01) (1 Sample)

The inspectors evaluated the licensee's radiological work planning.

(1) The inspectors reviewed the following activities:
- RWP NM-1-19-00506 Drywell Scaffold and ALARA Plan
- RWP NM-1-19-00509 Drywell Main Steam Isolation Valve Activities and ALARA Plan
- RWP NM-1-19-00518 Drywell In Service Inspection Activities and ALARA plan
- RWP NM-1-19-00601 Reactor Building Reactor Water Clean Up System Maintenance Activities and ALARA Plan
- RWP NM-1-19-00901 Reactor Disassembly/Reassembly and ALARA Plan

Implementation of ALARA and Radiological Work Controls (IP Section 02.03) (1 Sample)

The inspectors reviewed as low as reasonably achievable practices and radiological work controls.

(1) The inspectors reviewed the following activities:

- RWP NM-1-19-00506 Drywell Scaffold and ALARA Plan Work in Progress Reviews and Post Job Review
- RWP NM-1-19-00509 Drywell Main Steam Isolation Valve Activities and ALARA Plan Work in Progress Reviews and Post Job Review
- RWP NM-1-19-00518 Drywell In Service Inspection Activities and ALARA plan Work in Progress Reviews and Post Job Review
- RWP NM-1-19-00601 Reactor Building Reactor Water Clean Up System Maintenance Activities and ALARA Plan Work in Progress Reviews and Post Job Review
- RWP NM-1-19-00901 Reactor Disassembly/Reassembly and ALARA Plan Work in Progress Reviews and Post Job Review

71124.04 - Occupational Dose Assessment

External Dosimetry (IP Section 02.02) (1 Sample)

(1) The inspectors evaluated the external dosimetry program implementation.

Special Dosimetric Situations (IP Section 02.04) (1 Sample)

The inspectors evaluated the following special dosimetric situation:

(1) The licensee's implementation of requirements to manage radiation protection of declared pregnant workers for four workers, application of NRC-approved external dosimetry methods, and neutron dose assessments.

71124.07 - Radiological Environmental Monitoring Program

Site Inspection (IP Section 02.01) (1 Sample)

The inspectors evaluated the radiological environmental monitoring program implementation.

(1) The inspectors reviewed the following:

Walkdowns, Calibrations, and Maintenance Record Review

- The inspectors observed air sample collection at R1, R2, R3, R4, R5 and observed the thermoluminescent dosimeters (TLDs) at the same locations.

Environmental Sample Collections and Preparation Observation

- The inspectors observed the collection of two milk samples and the preparation for shipment.

Licensee Actions in Response to Missed Sample, Inoperable Sampler, Lost TLD or Anomalous Measurement

- The inspectors reviewed issue reports for power losses at a couple air monitor stations and a couple of lost environmental TLDs.

Sampling Program for the Potential of Licensed Material Entering Groundwater

- The inspectors observed the condition of several monitoring wells to ensure maintenance is being maintained.

Groundwater Protection Initiative (GPI) Implementation (IP Section 02.02) (1 Sample)

(1) The inspectors reviewed the Groundwater Protection Program. All tritium (H-3) sample results are less than 500 pCi/l.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

MS05: Safety System Functional Failures (SSFFs) Sample (IP Section 02.04) (2 Samples)

(1) Unit 1, July 1, 2018 - June 30, 2019
(2) Unit 2, July 1, 2018 - June 30, 2019

MS06: Emergency AC Power Systems (IP Section 02.05) (2 Samples)

(1) Unit 1, July 1, 2018 - June 30, 2019
(2) Unit 2, July 1, 2018 - June 30, 2019

MS07: High Pressure Injection Systems (IP Section 02.06) (2 Samples)

(1) Unit 1, July 1, 2018 - June 30, 2019
(2) Unit 2, July 1, 2018 - June 30, 2019

OR01: Occupational Exposure Control Effectiveness Sample (IP Section 02.15) (2 Samples)

(1) Unit 1, September 2018-August 2019
(2) Unit 2, September 2018-August 2019

PR01: Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual Radiological Effluent Occurrences (RETS/ODCM) Radiological Effluent Occurrences Sample. (IP Section 02.16) (2 Samples)

(1) Unit 1, January 1, 2018-June 30, 2019
(2) Unit 2, January 1, 2018-June 30, 2019

71152 - Problem Identification and Resolution

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

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

(1) IR 04234861, Evaluation of Local Leak Rate Type B and C Test Failures Associated with Isolation Valves During the 2019 Unit 1 Refueling Outage

71153 - Followup of Events and Notices of Enforcement Discretion

Event Followup (IP Section 03.01) (1 Sample)

(1) Unit 1 recirculation pump 11 trip due to degraded tachometer generator on August 4, 2019

OTHER ACTIVITIES – TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

60855.1 - Operation of an Independent Spent Fuel Storage Installation at Operating Plants

Operation of an Independent Spent Fuel Storage Installation at Operating Plants (1 Sample)

(1) The inspectors evaluated Nine Mile Point's independent spent fuel storage installation cask loadings on July 8–11, 2019. Specifically, the inspectors observed the following activities:
- Fuel selection
- Heavy load movement of the transfer cask and dry shielded canister
- Decontamination of the transfer cask
- Closure welding and non-destructive weld evaluations
- Canister drying and helium backfill evolutions
- Helium leak testing
- Radiological field surveys

INSPECTION RESULTS

Failure to Obtain Station ALARA Committee Approval for a Dose Estimate Change Which Resulted in Collective Dose Greater Than 5 Person-Rem and Exceeding the Estimate by More Than 50 Percent			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Occupational Radiation Safety	Green NCV 05000220/2019003-01 Open/Closed	[H.4] - Teamwork	71124.02
The inspectors identified a finding and Green NCV of Technical Specification 6.4.1, "Administrative Controls, Procedures," for Exelon's failure to follow its procedure to maintain doses As Low As Reasonably Achievable (ALARA) during the most recent Unit 1 refueling outage. Specifically, Exelon did not follow procedure RP-AA-401, "ALARA Planning and Controls," and did not obtain Station ALARA Committee review when raising the dose estimate for drywell main steam isolation valve activities. This resulted in the dose estimate			

changing from a Category 1 to a Category 2 work activity, which required approval by the Station ALARA Committee in accordance with Exelon procedure RR-AA-401, ALARA Program, step 4.2.7(3). The site had additional exposure estimate increases, which resulted in the accumulated dose exceeding 5 person-Rem and exceeding the original estimate by greater than 50 percent.

Description: Prior to the most recent refueling outage, Nine Mile Point Unit 1 had been experiencing a rising trend in unidentified leakage. It was determined during the outage that the cause was steam leakage from the main steam isolation valve IV-01-01 packing. A radiation work permit and ALARA plan were written to repair the valve. A work-in-progress (WIP) review was performed at 80 percent of the dose estimate and identified that an increase in the estimate was required due to the increase in work scope. The valve internals required repair by adding a weld overlay, and machining had to be performed to reassemble the valve. Subsequently, the dose estimate was revised from 2.900 person-rem to 3.526 person-rem. This exceeded the 3 person-rem level and raised the task from a Category 1 to a Category 2 per procedure RR-AA-401, step 4.1.3(6). Step 4.2.7(3) of the procedure states, "If a WIP Review results in a change in dose estimate from ALARA Category 1 to Category 2, then SAC [Station ALARA Committee] approval is required." This approval was not obtained when the dose estimate was revised to 3.526 person-rem, and as a result the total actual dose received from the activity was 7.651 person-rem which was greater than 5 person-rem and greater than 50 percent of the dose estimate.

Corrective Actions: Exelon's immediate corrective actions included reviewing the lessons learned in the post-job review following the work and entering the issue into its corrective action program.

Corrective Action References: IR 04275201

Performance Assessment:

Performance Deficiency: The inspectors determined that Exelon failed to implement their ALARA procedure to obtain Station ALARA Committee approval when changing the dose estimate for drywell main steam isolation valve activities as required by RR-AA-401, step 4.2.7(3). This was a performance deficiency that was reasonably within Exelon's ability to foresee and correct and should have been prevented.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Program & Process attribute of the Occupational Radiation Safety cornerstone and adversely affected the cornerstone objective to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. The inspectors determined the performance deficiency was more than minor because it was associated with the Program & Process attribute of the Occupational Radiation Safety cornerstone. Specifically, it adversely affected the cornerstone objective to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Additionally, this finding is similar to IMC 0612, Appendix E, Example 6.i. Specifically, the actual collective dose exceeded 5 person-rem and exceeded the planned, intended dose by more than 50 percent.

Significance: The inspectors assessed the significance of the finding using Appendix C, "Occupational Radiation Safety SDP." The inspectors determined that this finding was of very low safety significance (Green) because the performance deficiency did not result in Exelon's current 3-year rolling average collective dose exceeding 240 person-rem.

Cross-Cutting Aspect: H.4 - Teamwork: Individuals and work groups communicate and coordinate their activities within and across organizational boundaries to ensure nuclear safety is maintained. The work process includes the identification and management of risk commensurate with the work and the need for coordination with different groups or job activities. Exelon's ALARA WIP review process and increase in the dose estimate was not reviewed and approved by Station ALARA Committee and caused the accumulated dose to be greater than 50 percent of the revised estimate for the task.

Enforcement:

Violation: Technical Specification 6.4.1, requires, in part, that written procedures be established, implemented, and maintained as required by NRC Regulatory Guide 1.33, Appendix A, November 3, 1972, Section I.5(b), "Factors to be taken into account in preparing the detailed work procedures, including the necessity for minimizing radiation exposure to workmen." Exelon procedure RR-AA-406, "ALARA Planning and Controls," requires Station ALARA Committee approval for work activities with dose estimates greater than or equal to 3 person-rem. Contrary to the above, Exelon failed to follow the procedural requirement to obtain Station ALARA Committee approval for a dose estimate revision greater than 3 person-rem.

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

Observation: Unit 1 Local Leak Rate Test Failures	71152

A series of primary containment valves and reactor coolant system pressure isolation valves did not meet Exelon’s local leak rate testing acceptance criteria during the Unit 1 refueling outage in the spring of 2019. Exelon generated issue reports to identify and resolve the issues. IR 04234861, as well as IR 04237553, captured several of the local leak rate test failures.

The inspectors reviewed the issue reports, the results of the local leak rate tests, and associated corrective actions to verify the site was in compliance, adequately identified issues, and initiated corrective actions. Depending on the severity of the leak rate, Exelon took corrective actions to make changes to preventative maintenance frequency, performed engineering evaluations to remove conservatism in the permitted leak late, or repaired the valve.

The inboard steam supply emergency condenser isolation valves, IV 39-09R and IV 39-10R, failed the local leak rate test, as detailed in IRs 04230591 and 04232618, respectively. Exelon subsequently repaired the condition, which included having to split the valve stem nut, perform post-maintenance testing, and return the valves to operable status. Inspectors challenged the duration of the IV 39-09R and IV 39-10R inoperabilty after identifying that a past operability evaluation was not in the respective IRs and, therefore, a review of reportability was not performed. Exelon performed a past operability evaluation and determined the valves did not have an extended period of inoperability because IV 39-09R and 39-10R passed the most recent surveillance tests on March 14, 2019, and January 30, 2019, respectively. The inspectors determined there was reasonable assurance that these valves were capable of fulfilling their intended functions while the plant was operating. The inspectors independently evaluated the issues of concern in accordance with the guidance in IMC 0612, Appendix B, "Issue Screening," and Appendix E, "Examples of Minor Violations." As a result, no violations or performance deficiencies were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On October 23, 2019, the inspectors presented the integrated inspection results to Mr. Peter Orphanos, Site Vice President, and other members of the licensee staff.
- On July 11, 2019, the inspectors presented the Independent Spent Fuel Storage Installation inspection results to Mr. Todd Tierney, Plant Manager, and other members of the licensee staff.
- On August 8, 2019, the inspectors presented the Triennial Heat Sink Performance inspection results to Mr. Peter Orphanos, Site Vice President, and other members of the licensee staff.
- On September 19, 2019, the inspectors presented the Radiological Environmental Monitoring Program inspection results to Mr. Matthew Bush, Maintenance Director, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Corrective Action Documents	04056415		
		04056415		
		04264985		
	Procedures	N1-IPM-110-001	Sample Conductivity Calibration	00500
		N1-SOP-33A.3	Major 115 KV Grid Disturbances	00201
		N2-MSP-GEN-V001	Revetment Ditch Structure Inspection	00501
		N2-OP-70	Station Electric Feed and 115kv Switchyard	02400
		N2-SOP-70	Major Grid Disturbances	00400
		OP-NM-108-107-1002	Off-Site Power Operations and Interface	004
		WC-NM-8003-1012	Nine Mile Point Nuclear Station Units 1 and 2 Nuclear Plant Interface Requirements (NPIRs)	1
	Work Orders	C92770203		
71111.04Q	Corrective Action Documents	04107700		
		04236901		
		04258410		
		04258431		
	Drawings	C-18017-C, Sheet 1	Emergency Cooling System P&I Diagram	56.01
		C-18022-C, Sheet 1	Service Water, Reactor and Turbine Buildings P&I Diagram	83
	Procedures	N1-OP-13	Emergency Cooling System	04300
		N1-OP-18	Service Water System	04400
		N1-OP-45	Emergency Diesel Generators	04800
		N2-OP-100B	HPCS Diesel Generator	02700
		N2-OP-100B-LINEUPS	HPCS Diesel Generator - LINEUPS	00200
		N2-OP-33	High Pressure Core Spray System	01700
		N2-OP-33-	HPCS System - LINEUPS	00100

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		LINEUPS		
71111.05Q	Procedures	N1-PFP-0101	Unit 1 Pre-Fire Plans	00500
71111.07T	Corrective Action Documents	4182503		
	Miscellaneous	673606	Nine Mile Point Unit 2 Forebay Silt Mapping Report	12/28/2018
		N2-TTP-RHS-4Y003	Residual Heat Removal System Heat Exchanger Performance Monitoring Test	Performed 2/12/2016
	Procedures	ER-AA-340-1001	GL 89-13 Program Implementation Instructional Guide	11
71111.11Q	Procedures	N2-OSP-RMC-@001	Control Rod Drive Scram Insertion Time Testing	02500
		N2-SOP-30	Control Rod Drive Failures	00500
		NF-AB-720-F-1	Control Rod Sequence Review and Approval Sheet	1
71111.12	Corrective Action Documents	04195955		
		04196529		
		04196538		
		04200048		
		04214686		
		04223198		
		04226384		
	Miscellaneous	10 CFR 50.65 (a)(3)	Maintenance Rule Periodic Assessment	October 1, 2015 to September 30, 2017
	Work Orders	C93536085		
		C93536250		
		C93687564		
		C93695810		
		C93696635		
		C93697980		
71111.13	Corrective Action Documents	04265049		
		04265299		
		04265764		
		04269525		

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	Drawings	B-18023-C, Sheet 1	Shaft Driven Reactor Feedwater Pump #13 Gear and Clutch Oil P&I Diagram	17
	Procedures	N1-ARP-F2	Control Room Panel F2	01200
		N1-OP-1	Nuclear Steam Supply System	075T1
		N1-OP-16	Feedwater System Booster Pump to Reactor	06700
		N1-OP-43B	Normal Power Operations	02500
		N1-SOP-1.3	Recirc Pump Trip at Power	00400
		N2-OP-102	Meteorological Monitoring	02600
		OP-NM-108-117	Protected Equipment Program at Nine Mile Point	00500
		WC-AA-101	On-Line Work Control Process	29
	Work Orders	C93710586		
		C93716460		
71111.15	Corrective Action Documents	04255747		
		04262272		
		04262316		
		04263602		
		04263911		
		04264027		
		04264036		
		04264279		
		04264283		
		04264399		
		04264985		
		04265111		
		04266278		
		04271674		
		04274661		
		04278008		
	Drawings	PID-31A	Piping and Instrumentation Diagram Residual Heat Removal System	26
	Procedures	N1-OP-16	Feedwater System Booster Pump to Reactor	06700
		N1-OP-33A	115 KV System	03300
		N1-OP-38B	Intermediate Range Monitor	02100

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		N1-SOP-33A.3	Major 115 KV Grid Disturbances	00201
		N2-OP-11	Service Water System	01400
		N2-PM-@11	SWP Mullusk Biocide Treatment (System Alignment and Valve Control)	00700
	Work Orders	C93576635		
		C93676790		
71111.19	Drawings	C-18012-C, Sheet 1	Reactor Containment Spray Raw Water System P&I Diagram	26
		C-18012-C, Sheet 2	Reactor Containment Spray Raw Water System P&I Diagram	47
	Procedures	N1-ST-M4A	Emergency Diesel Generator 102 and PB [power board] 102 Operability Test	02500
		N1-ST-Q13	Emergency Service Water Pump and Check Valve Operability Test	02100
		N1-ST-Q5	Primary Containment Isolation Valves Operability Test	03400
		N2-OP-100B	HPCS Diesel Generator	02700
		N2-OSP-EGS-M@002	Diesel Generator and Diesel Air Start Valve Operability Test - Division III	02300
		S-EPM-GEN-067	Limitorque MOV Actuator PM	00800
	Work Orders	C92535400		
		C93587063		
		C93635628		
		C93667492		
		C93667768		
		C93677587		
		C93703618		
		C93717108		
		C93717187		
		C93721801		
71111.22	Procedures	CC-NM-118-101	Beyond Design Basis Administrative Controls	00400
		N1-ST-Q6B	Containment Spray System Loop 121 Quarterly Operability Test	01600
		N1-ST-Q6C	Containment Spray System Loop 112 Quarterly Operability	01800

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Test	
		N2-OSP-RHS-Q@005	RHR System Loop B Pump and Valve Operability Test, System Integrity Test and ASME XI Pressure Test	01300
		S-PM-001	Flex 3419MX Water Pump Test	00200
	Work Orders	C93667166		
		C93670946		
71114.06	Procedures	EP-CE-111	Emergency Classification and Protective Action Recommendations	9
		EP-CE-114-100-F-05	Part 1 Notification Fact Sheet	G
71124.01	Corrective Action Documents	04249395		
		04254827		
		04265123		
		04267023		
	Procedures	NISP-RP-002	Radiation and Contamination Surveys	1
		NISP-RP-004	Radiological Posting and Labeling	1
		NISP-RP-005	Access Controls for High Radiation Areas	1
	Radiation Work Permits (RWPs)	NM-1-19-00506	Dry Well Scaffold	0
		NM-1-19-00509	Drywell MSIV Activities	0
		NM-1-19-00518	Drywell ISI Activities	0
		NM-1-19-00601	Reactor Building RWCU System Maintenance Activities	0
		NM-1-19-00901	Reactor Disassembly/Reassembly	0
71124.02	Corrective Action Documents	04249516		
		04265156		
	Procedures	RP-AA-406	Occupational ALARA Planning and Controls	26
71124.04	Corrective Action Documents	04248516		
	Procedures	RP-AA-203	Exposure Control and Authorization	5
		RP-AA-210	Dosimetry Issue, Usage, and Control	29
		RP-AA-232	Operation of the Whole Body Counter (WBC) using APEX-INVIVO	1
		RP-AA-250	External Dose Assessments from Contamination	8
		RP-AA-270	Prenatal Radiation Exposure	8

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71124.07	Corrective Action Documents Resulting from Inspection	04280602	Groundwater Monitoring Wells	September 19, 2019
		04280617	R1 Air Station	September 19, 2019
		04280625	Eberline Radiation Monitor	September 19, 2019
	Procedures	CY-AA-170-000	Radioactive Effluent and Environmental Monitoring Programs	6
		CY-AA-170-100	Radiological Environmental Monitoring Program	2
		CY-NM-170-101	Environmental Air Monitoring Sample Collection	0
		CY-NM-170-102	Radiological Sample Collection, Processing and Shipment, Land Use Census and Quality Control (Vendor Procedure)	0
		EN-AA-408	Radiological Groundwater Protection Program	0
		S-ENVSP-4.3	Environmental Air Monitoring Station Inspection and Maintenance	00601
71151	Procedures	ER-AA-2008	Mitigating Systems Performance Index (MSPI) Monitoring and Margin Evaluation	4
		NEI 99-02	Regulatory Assessment Performance Indicator Guideline	7
71152	Corrective Action Documents	04230591		
		04230937		
		04231860		
		04231867		
		04232255		
		04232357		
		04232473		
		04232618		
		04232897		
		04234861		
		04235453		
		04235965		
		04236035		
		04237039		
	Drawings	C-18006-C	Drywell & Torus Isolation & Blocking Valves P & I Diagram	34

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		C-18017-C	Emergency Cooling System P & I Diagram	56
	Miscellaneous	NRC Information Notice 2010-03	Failure of Motor-Operated Valves Due to Degraded Stem Lubricant	February 3, 2010
	Procedures	N1-MMP-068-251	Maintenance of Containment Vacuum Relief Valves	00701
		N1-ST-TYC-001	MSIV Type C Leak Rate Tests	00200
		N1-ST-TYC-005	Emergency Condenser Type C Leak Rate Tests	00100
		N1-ST-TYC-008	Torus Vacuum Relief Valve Type C Leak Rate Tests	00000
		N1-ST-TYC-026	Loop 11 and 12 Steam Line Drain 1st and 2nd Isolation Valves Type C Leak Rate Tests	00000
		N1-TSP-201-550	Local Leak Rate Test Summary (Type B and C Tests) For 10CFR50 Appendix J and Secondary Containment Bypass Leakage	01400
	Work Orders	C93321759		
		C93620060		
		C93628030		
		C93701790		
		C93702441		
		C93702637		
		C93703870		