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

November 14, 2018

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

SUBJECT: NINE MILE POINT NUCLEAR STATION – INTEGRATED INSPECTION REPORT 05000220/2018003 AND 05000410/2018003 AND NRC OFFICE OF INVESTIGATIONS REPORT 1-2018-002

Dear Mr. Hanson:

On September 30, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Nine Mile Point Nuclear Station (NMPNS), Units 1 and 2. On October 24, 2018, 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.

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

The NRC's Office of Investigations, Region I Field Office, conducted an investigation (Case No. 1-2018-002) to determine whether operators deliberately failed to follow a procedure required by technical specifications. Based upon the evidence developed during the investigation, the NRC did not substantiate that licensed operators deliberately failed to follow a technical specifications required procedure.

Please note that final NRC investigation documents, such as the OI report described above, may be made available to the public under the Freedom of Information Act (FOIA), subject to redaction of information appropriate under the FOIA. Requests should be made in accordance with 10 CFR 9.23, Requests for Records. Additional information is available on the NRC website at http://www.nrc.gov/reading-rm/foia-privacy.html.

If you contest the violation or significance of this NCV, 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 NMPNS. In addition, if you disagree with a cross-cutting aspect assignment, 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 NMPNS.

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 the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Part 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

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

Docket Numbers: 50-220 and 50-410
License Numbers: DPR-63 and NPF-69

Enclosure:
Inspection Report 05000220/2018003 and
05000410/2018003

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SUBJECT: NINE MILE POINT NUCLEAR STATION – INTEGRATED INSPECTION REPORT 05000220/2018003 AND 05000410/2018003 AND NRC OFFICE OF INVESTIGATIONS REPORT 1-2018-002 DATED NOVEMBER 14, 2018

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers:	05000220 and 05000410
License Numbers:	DPR-63 and NPF-69
Report Numbers:	05000220/2018003 and 05000410/2018003
Enterprise Identifier:	I-2018-003-0064
Licensee:	Exelon Generation Company, LLC (Exelon)
Facility:	Nine Mile Point Nuclear Station, LLC (NMPNS) Units 1 and 2
Location:	Oswego, New York
Inspection Dates:	July 1, 2018 to September 30, 2018
Inspectors:	E. Miller, Senior Resident Inspector J. Dolecki, Resident Inspector B. Sienel, Resident Inspector J. Ambrosini, Senior Emergency Preparedness Inspector J. Furia, Senior Health Physicist J. Patel, Reactor Inspector R. Rolph, Health Physicist A. Rosebrook, Senior Project Engineer
Approved By:	E. Carfang, Chief Reactor Projects Branch 1 Division of Reactor Projects

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring Exelon's performance at NMPNS Units 1 and 2 by conducting the baseline inspections described in this report 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. NRC identified and self-revealed findings, violations, and additional items are summarized in the table below.

List of Findings and Violations

Failure to Ensure that Thermal Power is Less Than or Equal to the Licensed Power Limit			
Cornerstone	Significance	Cross-cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000410/2018003-01 Closed	H.1 – Human Performance, Resources	71111.22
The inspectors identified a Green finding and associated non-cited violation (NCV) of the NMPNS Unit 2 Operating License (NPF-69), Condition 2.C(1), "Maximum Power Level," when Exelon did not ensure that thermal power was less than or equal to the licensed power limit of 3988 megawatts-thermal (MWth). Specifically, on multiple occurrences between May 22, 2018 and October 19, 2018, licensed operators in the main control room did not appropriately monitor and control 2-hour average thermal power at or below the licensed power limit. The inspectors determined the 2-hour average thermal power exceeded the licensed power limit outside of normal steady-state fluctuations, and did not take timely, effective corrective action to reduce thermal power below the licensed power limit when the 2-hour average was found to exceed the licensed power limit.			

Additional Tracking Items

Type	Issue number	Title	Inspection Results Section	Status
LER	05000220/2017-002-01	Manual Reactor Scram Due to Presesure Oscillations	71153	Closed

PLANT STATUS

Unit 1 began the inspection period at rated thermal power. On September 8, 2018, operators reduced reactor power to 70 percent to perform surveillance testing and a control rod pattern adjustment. Operators restored Unit 1 to rated thermal power the same day. Unit 1 remained at or near rated thermal power for the remainder of the inspection period.

Unit 2 began the inspection period at rated thermal power. On August 27, 2018 the Unit 2 reactor automatically scrammed following a grid disturbance. On August 28, 2018, following evaluation of the event, operators commenced a reactor startup. Unit 2 reached rated thermal power on August 30, 2018. On August 31, 2018, operators reduced Unit 2 power to 80 percent to perform surveillance testing and to conduct a control rod pattern adjustment. Unit 2 was returned to rated thermal power on September 1, 2018, and 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 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 (1 Sample)

The inspectors evaluated summer readiness of alternating current offsite and alternate power systems.

External Flooding (1 Sample)

The inspectors evaluated readiness to cope with external flooding.

71111.04 - Equipment Alignment

Partial Walkdown (3 Samples)

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

(1) Unit 2 Division II standby gas treatment system on July 23, 2018
(2) Unit 1 emergency diesel generator 103 following surveillance testing on September 10, 2018

(3) Unit 2 Division II emergency diesel generator during 115 kV Line 5 planned outage on September 10, 2018

71111.05AQ - Fire Protection Annual/Quarterly

Quarterly Inspection (6 Samples)

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

(1) Unit 1 261' emergency diesel generator 102 room, fire area 22 on September 14, 2018
(2) Unit 1 261' emergency diesel generator 103 room, fire area 19 on September 14, 2018
(3) Unit 1 turbine building 261' emergency diesel generator power board 102, fire area 5 on September 14, 2018
(4) Unit 1 turbine building 261' emergency diesel generator power board 103, fire area 5 on September 14, 2018
(5) Unit 1 reactor building 281' east, fire area 1, on September 28, 2018
(6) Unit 1 reactor building 298' east, fire area 1, on September 28, 2018

71111.06 - Flood Protection Measures

Internal Flooding (2 Samples)

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

(1) Unit 1 102 and 103 emergency diesel generators on September 14, 2018
(2) Unit 1 102 and 103 emergency power boards on September 14, 2018

71111.11 - Licensed Operator Requalification Program and Licensed Operator Performance

Operator Requalification (2 Samples)

(1) The inspectors observed a Unit 1 simulator evaluation that involved a drywell pressure transmitter failure, a control rod drive pump failure, an un-isolable steam leak in emergency condenser piping, and a loss of reactor pressure vessel level indication on July 24, 2018

(2) The inspectors observed a Unit 2 simulator evaluation that involved an offsite chlorine spill, a recirculation pump failure, multiple control rods drifting into the core, a loss of one offsite power line and emergency diesel generator failures, and fuel damage on July 31, 2018

Operator Performance (2 Samples)

(1) The inspectors observed Unit 1 operations personnel during reactor downpower manipulations to 90 percent and control rod scram time testing on September 8, 2018

(2) The inspectors observed Unit 2 operations personnel during a startup following a reactor scram and turbine trip on August 27, 2018

71111.12 - Maintenance Effectiveness

Routine Maintenance Effectiveness (2 Samples)

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

(1) Unit 1 reactor protection system uninterruptible power supplies
(2) Unit 2 standby gas treatment system

71111.13 - Maintenance Risk Assessments and Emergent Work Control (8 Samples)

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

(1) Unit 2 emergent high pressure core spray unit cooler maintenance on July 6, 2018
(2) Unit 1 unplanned actuation of automatic transfer switch to alternate power supply for main transformer cooling on August 2, 2018
(3) Unit 1 planned core spray 121 system valve maintenance on August 21, 2018
(4) Unit 2 unplanned main generator unit Phase 1 differential relay maintenance on August 28, 2018
(5) Unit 2 elevated risk due to Division II emergency diesel generator failure to start on August 30, 2018
(6) Unit 2 power rate ascension rate limitation during startup on August 30, 2018
(7) Unit 2 reserve station transformer 2RTX-XSR1A during planned maintenance on September 4, 2018
(8) Unit 2 planned 115 kv Line 5 outage on September 10, 2018

71111.15 - Operability Determinations and Functionality Assessments (4 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

(1) Unit 2 drywell floor drain leak rate instrumentation on July 20, 2018
(2) Unit 1 emergency diesel generator 102 emergency shutdown on July 23, 2018
(3) Unit 2 ‘D’ service water pump failed start logic surveillance on August 14, 2018
(4) Unit 1 missed surveillance of core spray 111 inboard discharge isolation valve on September 28, 2018

71111.18 - Plant Modifications (2 Samples)

The inspectors evaluated the following temporary or permanent modifications:

(1) Unit 1 auxiliary control room panel doors IS19 and IS21 in the open position on August 21, 2018
(2) Unit 1 temporary modification for scaffold installation near emergency diesel generator 102 to support maintenance on September 11, 2018

71111.19 - Post Maintenance Testing (4 Samples)

The inspectors evaluated post maintenance testing for the following maintenance/repair activities:

(1) Unit 1 containment spray loop 122 electrical preventive maintenance on July 12, 2018
(2) Unit 2 drywell floor drain system maintenance to unclog suction strainers on July 23, 2018
(3) Unit 2 Division II emergency diesel generator replacement of air relays and lube oil pressure switch on August 31, 2018
(4) Unit 2 rod worth minimizer power supply replacement on August 28, 2018

71111.20 - Refueling and Other Outage Activities (1 Sample)

The inspectors evaluated the Unit 2 forced outage (N2FO18-01) activities to address an electrical grid disturbance and corrective maintenance to main generator trip system relays from August 27, 2018, to August 30, 2018.

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Routine (5 Samples)

(1) Unit 1 N1-ST-22, Diesel Fire Pump Instrument Air Test and Flow Verification, on July 2, 2018
(2) Unit 2 N2-OSP-LOG-S001, Shift Checks, on July 26, 2018
(3) Unit 1 N1-ISP-036-006, Emergency Cooling System – High Steam Flow Instrument Trip Channel Test/Calibration, on August 9, 2018
(4) Unit 2 N2-OSP-RSP-Q001, RPS Turbine Stop Valve Closure Logic, Control Valve Fast Closure Scram Functional Tests and Turbine Valve Cycling, on August 31, 2018
(5) Unit 2 N2-OSP-EGS-R002, Operating Cycle Diesel Generator 24-Hour Run Division I and II, on September 19, 2018

Inservice (2 Samples)

(1) Unit 2 N2-OSP-SLS-Q001, Standby Liquid Control Pump, Check Valve, Relief Valve Operability Test and ASME XI Pressure Test, on July 30, 2018
(2) Unit 2 N2-OSP-RHS-Q@006, Quarterly Operability Flow Rate Test on Loop ‘C’ of Division II LP ECCS, on August 2, 2018

71114.02 – Alert and Notification System Testing (1 Sample)

The inspectors evaluated the maintenance and testing of the alert and notification system from July 2016 to July 2018.

71114.03 – Emergency Response Organization Staffing and Augmentation System (1 Sample)

The inspectors conducted a review of Exelon's emergency response organization augmentation staffing requirements and the process for notifying and augmenting the emergency response organization.

71114.05 – Maintenance of Emergency Preparedness (1 Sample)

The inspectors reviewed a number of activities to evaluate the efficacy of Exelon's efforts to maintain the NMPNS emergency preparedness programs.

71114.06 - Drill Evaluation

Emergency Planning Drill (1 Sample)

The inspectors evaluated the conduct of a Unit 2 emergency planning drill on July 31, 2018.

RADIATION SAFETY

71124.05 – Radiation Monitoring Instrumentation

Walkdowns and Observations (1 Sample)

The inspectors evaluated radiation monitoring instrumentation during plant walkdowns.

Calibration and Testing Program (1 Sample)

The inspectors evaluated Exelon's calibration and testing program.

71124.08 - Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation

Radioactive Material Storage (1 Sample)

The inspectors observed radioactive waste container storage areas and verified the postings and controls and that Exelon had established a process for monitoring the impact of long-term storage of the waste.

Radioactive Waste System Walk-down (1 Sample)

The inspectors walked down the following:

(1) Accessible portions of liquid and solid radioactive waste processing systems to verify current system alignment and material condition
(2) Abandoned in place radioactive waste processing equipment to review the controls in place to ensure protection of personnel
(3) Changes made to the radioactive waste processing systems since the last inspection

(4) Processes for mixing and transferring radioactive waste resin and/or sludge discharges into shipping/disposal containers
(5) Current methods and procedures for dewatering waste

Waste Characterization and Classification (1 Sample)

The inspectors identified radioactive waste streams and reviewed radiochemical sample analysis results to support radioactive waste characterization. The inspectors reviewed the use of scaling factors and calculations to account for difficult-to-measure radionuclides.

Shipment Preparations (1 Sample)

The inspectors reviewed the records of shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, disposal manifest, shipping papers provided to the driver, and Exelon verification of shipment readiness.

Shipment Records (1 Sample)

The inspectors reviewed selected non-excepted package shipment records.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification (15 Samples)

The inspectors verified Exelon's performance indicator submittals listed below for the period from July 1, 2017, through March 31, 2018: (3 Samples)

(1) EP01, Drill and Exercise Performance
(2) EP02, Emergency Response Organization Drill Participation
(3) EP03, Alert and Notification Reliability

The inspectors verified Exelon's performance indicator submittals listed below for Units 1 and 2 for the period from July 1, 2017, through June 30, 2018: (12 Samples)

(4) MS05, Unit 1 Safety System Functional Failures
(5) MS05, Unit 2 Safety System Functional Failures
(6) MS06, Unit 1 Emergency Alternating Current Power System
(7) MS06, Unit 2 Emergency Alternating Current Power System
(8) MS07, Unit 1 High Pressure Injection System
(9) MS07, Unit 2 High Pressure Injection System
(10) MS08, Unit 1 Heat Removal System
(11) MS08, Unit 2 Heat Removal System
(12) MS09, Unit 1 Residual Heat Removal System
(13) MS09, Unit 2 Residual Heat Removal System
(14) MS10, Unit 1 Cooling Water System
(15) MS10, Unit 2 Cooling Water System

71152 - Problem Identification and Resolution (PI&R)

Annual Follow-up of Selected Issues (2 Samples)

The inspectors reviewed Exelon's corrective actions associated with the following issues:

(1) Unit 1 – Issue Report 03987066, March 20, 2017 reactor scram following reactor pressure oscillations
(2) Unit 2 – Issue Report 04128779, Division II emergency diesel generator loss of offsite power/loss of coolant accident testing failure to maintain voltage within the limit specified in Technical Specifications

71153 - Follow-up of Events and Notices of Enforcement Discretion

Events (1 Sample)

The inspectors evaluated response to the following event:

(1) Unit 2 reactor scram due to turbine trip on August 27, 2018

Licensee Event Reports (1 Sample)

The inspectors evaluated the following licensee event reports:

(1) Licensee Event Report 05000220/2017-002-01, Manual Reactor Scram Due to Presesure Oscillations (ADAMS Accession No. ML18242A071). The circumstances surrounding this licensee event report are documented in report section Inspection Results.

INSPECTION RESULTS

Failure to Ensure that Thermal Power is Less Than or Equal to the Licensed Power Limit			
Cornerstone	Significance	Cross-cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000410/2018003-01 Closed	H.1 – Human Performance, Resources	71111.22
The inspectors identified a Green finding and associated NCV of the NMPNS Unit 2 Operating License (NPF-69), Condition 2.C(1), "Maximum Power Level," when Exelon did not ensure that thermal power was less than or equal to the LPL of 3988 MWth. Specifically, on multiple occurrences between May 22, 2018 and October 19, 2018, licensed operators in the main control room did not appropriately monitor and control 2-hour average thermal power at or below the licensed power limit. The inspectors determined the 2-hour average thermal power exceeded the licensed power limit outside of normal steady-state fluctuations and did not take timely, effective corrective action to reduce thermal power below the licensed power limit when the 2-hour average was found to exceed the licensed power limit.			
Description: During a Unit 2 main control room walkdown on July 26, 2018, the inspectors identified the 2-hour average thermal power to be above the 3988 MWth operating license limit. Following additional review, the inspectors identified the 3988 MWth operating license limit was exceeded periodically between May 22, 2018 and October 19, 2018. Among the			

instances, some of the longest durations include the following 19 instances where the 2-hour average thermal power was continuously above 3988 MWth:

- May 22, 2018, for 56 minutes (1:42 AM to 2:38 AM)
- May 22, 2018, for 70 minutes (6:50 AM to 8:00 AM)
- May 22, 2018, for 96 minutes (10:07 AM to 11:43 AM)
- May 27, 2018, for 72 minutes (9:02 PM to 10:14 PM)
- June 24, 2018, for 72 minutes (7:52 AM to 9:04 AM)
- June 30, 2018 for 78 minutes (1:41 AM to 2:58 AM)
- July 8, 2018, for 103 minutes (11:41 AM to 1:24 PM)
- July 9, 2018, for 75 minutes (4:03 AM to 5:18 AM)
- July 10, 2018, for 55 minutes (4:27 AM to 5:22 AM)
- July 10, 2018, for 61 minutes (9:37 AM to 10:38 AM)
- July 13, 2018, for 56 minutes (7:51 PM to 8:47 PM)
- July 15, 2018, for 61 minutes (2:05 PM to 3:06 PM)
- July 26, 2018, for 74 minutes (6:04 AM to 7:18 AM)
- July 26, 2018, for 61 minutes (5:29 PM to 6:30 PM)
- September 19, 2018, for 60 minutes (6:01 PM to 7:01 PM)
- September 20, 2018, for 86 minutes (2:00 AM to 3:29 PM)
- September 22, 2018, for 73 minutes (5:16 AM to 6:29 AM)
- October 9, 2018, for 38 minutes (4:23 AM to 4:51 AM)
- October 19, 2018, for 48 minutes (3:03 PM to 3:51 PM)

Additionally, on May 21, 2018, at 3:01 PM, June 29, 2018, at 10:56 PM, July 9, 2018, at 12:19 AM, July 10, 2018, at 6:51 AM, and twice on September 19, 2018, at 4:05 AM and 9:48 AM, the 2-hour average thermal power was below the licensed power limit during steady-state operation then operators started to further open a recirculation flow control valve, which resulted in the 2-hour average thermal power subsequently exceeding the licensed power limit. This is noteworthy because Exelon's procedures state steady-state is only applicable when no operator action is taken.

N2-OP-101D, "Power Changes," Revision 02800, Section F, states that "if any of the following points are reached immediate operator action is required to ensure thermal power is trending below 3988 MWth:"

- 1-second instant = 4028 MWth
- 1-minute average = 4008 MWth
- 10-minute average = 3998 MWth

On June 24 from 7:44 AM to 7:55 AM the 10-minute average thermal power was above 3998 MWth, peaking at 3999 MWth. Contrary to N2-OP-101D, operators did not take timely effective action to reduce reactor power once the 10-minute average exceeded 3998 MWth.

Further, the following procedural steps are provided in N2-OP-101D for monitoring and controlling 2-hour average core thermal power during normal operations:

- (F.2.1) **CLOSELY MONITOR** 2-hour average core thermal power during "Steady State" operation with goal of maintaining rolling two-hour thermal power average between 3984 MWth **AND** 3988 MWth.

- (F.2.2) IF 2-hour average core thermal power is found to exceed 3988 MWth **THEN TAKE ACTION** to ensure thermal power is reduced to less than or equal to 3988 MWth **AND CLOSELY MONITOR** 2-hour average, to ensure it remains less than 3988 MWth for the shift.

Contrary to the requirements for monitoring the 2-hour average in accordance with N2-OP-101D, on June 30, 2018, from 1:41 AM to 2:58 AM, July 8, 2018, from 11:41 AM to 1:00 PM, July 10, 2018, from 4:27 AM to 5:22 AM, July 26, 2018, from 6:04 AM to 7:18 AM, September 19, 2018, from 6:01 PM to 7:01 PM, and October 19, 2018, from 3:03 PM to 3:51 PM, the operators did not perform any action to maintain thermal power less than the licensed power limit while the 2-hour average was above the licensed power limit.

The inspectors compared the N2-OP-101D procedure to the "Nuclear Energy Institute (NEI) Position Statement," associated NRC Safety Evaluation, and NRC RIS 2007-21, Revision 1. The inspectors determined Exelon revised N2-OP-101D in April 2010 following the issuance of NRC RIS 2007-21, Revision 1. Specifically, Revision 00800 included the below listed precaution and limitation while Revision 00900 did not include direction to perform immediate operator action if the 2-hour average thermal power exceeded the licensed power limit or include commensurate steps to what exists in the current revision of the procedure:

> "If the 10 minute smoothed thermal power indication exceeds 3467 MWth [(previous licensed power limit prior to April 2012)], take immediate action to reduce power to less than licensed limit, monitor 1 hour average thermal power indication taking actions to maintain less than licensed limit, initiate a Condition Report noting highest power achieved (instantaneous and 10 minute smoothed) and make notification as required by administrative procedures."

The inspectors concluded the supplemental documentation discussed above was not adequately translated into N2-OP-101D in order to ensure adherence to the licensed power limit. Specifically, as stated below, NEI Position Statement Guidance to Licensees on Complying with the Licensed Power Limit, as endored by the NRC Safety Evaluation Step 4.2(2) discusses timely operator action in Section 4.2(2):

> "Closely monitor thermal power during steady state power operation with the goal of maintaining the two-hour thermal power average at or below the LPL. If the core thermal power average for a 2-hour period is found to exceed the LPL, take timely action to ensure that thermal power is less than or equal to LPL."

N2-OP-101D does not include a timeliness component to perform action to reduce thermal power whenever the 2-hour thermal average is discovered to be above the licensed power limit. There is no timeliness direction provided in N2-OP-101D for the operators to take action (e.g., prompt or immediate operator action) until 3998 MWth on the 10-minute average is reached (i.e., 10 MWth above the LPL). As a result, the inspectors determined N2-OP-101D allows operators to operate the reactor above the licensed thermal power limit for unspecified periods of time.

Further, the NRC Safety Evaluation states, "RIS 2007-21 states that slight changes in thermal power may occur due to expected variances in plant parameters." Specifically, "NEI demonstrated to the NRC at a public meeting held June 12, 2008, that for short durations (1-minute average for thermal power) some peaks which lasted for less than one second exceed the thermal power limit but the average was below the licensed power limit." One of

the specific examples provided in the supplemental documentation is bi-stable flow. Following the refueling outage in May 2018, a change in the severity of power oscillations due to bi-stable flow was observed as noted by Issue Report (IR) 04141573. These bi-stable flow oscillations result in a power change greater than the 4 MWth range goal provided for the operators in N2-OP-101D. Based on this information, the inspectors concluded the changes in power due to these more severe bi-stable flows are not considered to be consistent with the definition of small fluctuations described in the supplemental documentation.

Unit 2's Renewed Facility Operating License (NPF-69), Condition 2.C(1), "Maximum Power Level," states, "Exelon Generation is authorized to operate the Unit 2 facility at reactor core power levels not in excess of 3988 MWth (100 percent rated power)." Given the increased severity of bi-stable flow and duration of the instances where thermal power is above the licensed power limit, the inspectors concluded the power excursions above the licensed power limit were not small, short-term fluctuations and not due to normal fluctuations of plant parameters while operating under steady-state conditions at or near the licensed power limit. The inspectors determined the operators did not adequately maintain power below the licensed power limit when the 2-hour average exceeded the licensed power limit.

Corrective Actions: As an immediate corrective action, on July 30, 2018 Exelon generated IR 04160054 and subsequently IR 04187330 on October 24, 2018, to capture the inspectors' concerns regarding maintaining core thermal power at or below the licensed power limit. Exelon performed a benchmark with the rest of the Exelon fleet regarding power management. Exelon updated N2-OP-101D to direct operators to manage power using the 1-hour average for thermal power. Exelon also adjusted the thermal power operating band established in N2-OP-101D to establish additional margin to the licensed power limit.

Corrective Action Reference: IR 04160054 and IR 04187330

Performance Assessment

Performance Deficiency: The inspectors determined that licensed operators did not ensure that thermal power was less than or equal to the licensed power limit when the 2-hour average exceeded the licensed power limit was contrary to the NMPNS Unit 2 Operating License (NPF-69), Condition 2.C(1), "Maximum Power Level," and was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because if left uncorrected the performance deficiency had the potential to lead to a more significant safety concern. Specifically, operation above the licensed power limit reduced the analyzed margins to fuel cladding failure and could result in unanalyzed consequences during an initiating event. The inspectors reviewed the examples of minor issues in IMC 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," dated August 11, 2009, and noted there were two examples that were applicable to screening this issue of concern. Consistent with Example 8b, the operators' non-compliance with the Unit 2 license condition to operate the reactor at or below rated thermal power could have the potential to lead to a more significant safety concern. Also, consistent with Example 8c, the inspectors determined operator actions to raise and maintain thermal power above rated thermal power, and the failure to promptly restore Unit 2 to rated thermal power once exceeded could have the potential to lead to a more significant safety concern.

Significance: The inspectors assessed the significance of the finding using IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated

June 19, 2012. The inspectors performed a Phase 1 SDP review of this finding using the guidance provided in IMC 0609, Appendix A, Exhibit 2, "Mitigating System Screening Questions," and determined this finding would require evaluation using IMC 0609, Appendix M, because the finding was the result of a mismanagement of reactivity by licensed reactor operators (e.g., reactor power exceeding the licensed power limit, inability to anticipate and control changes in reactivity during operations). The finding screened as very low safety significance (Green) based on a qualitative evaluation of the conditions and consequences of the performance issue not resulting in a violation of the core thermal limits. This assessment is consistent with those documented for similar issues in Prairie Island Nuclear Generating Plant Integrated Inspection Report 05000282/2009002, 05000306/2009002 and Fermi Power Plant Integrated Inspection Report 05000341/2015001. The maximum power reached at Unit 2 was 100.28 percent (3999 MWth/3988 MWth). The inadequate monitoring and control of reactor power did not result in exceeding the two percent reactor thermal power allowance contained in the safety analysis. Therefore, the safety analysis remained bounded for all instances described herein when the licensed power limit was exceeded.

Cross-Cutting Aspect: The inspectors determined that the finding had a cross-cutting aspect of Resources within the cross-cutting area of Human Performance because Exelon did not provide adequate guidance in N2-OP-101D to take timely action to restore and maintain reactor power at or below the licensed power limit. [H.1]

Enforcement

Violation: Nine Mile Point Nuclear Station Unit 2 Operating License (NPF-69), Condition 2.C(1), "Maximum Power Level," specifies, in part, "Exelon Generation is authorized to operate the facility at reactor core power levels not in excess of 3988 megawatts thermal (100 percent rated power)."

Contrary to the above, between May 22, 2018, and October 19, 2018, Exelon operated Unit 2 at reactor core power levels in exceedance of the LPL, 3988 MWth. Specifically, the inspectors identified numerous instances when the 3988 MWth operating license limit was exceeded between May 22, 2018 and October 19, 2018, on multiple occasions for extended periods of time.

Disposition: Exelon entered this issue into the corrective action program as IR 04160054 and IR 04187330, and this violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy.

Observations	71152 Annual Followup of Selected Isssues

March 20, 2017 reactor scram following reactor pressure oscillations

The inspectors conducted a problem identification and resolution inspection sample to review the cause evaluation for IR 03987066, regarding a reactor scram that occurred on March 20, 2017 due to a mechanical pressure regulator malfunction. The inspectors reviewed the evaluation for adequacy and if corrective actions were timely.

Inspectors reviewed the timeline established in operator logs during the time of the event and reported in LER 05000220/2017-002-00, "Manual Reactor Scram due to Pressure Oscillations" on May 18, 2017. Following the event Exelon wrote IR 03987066 and conducted

a Corrective Action Program Evaluation (CAPE), which is a Level 2 cause evaluation in accordance with PI-AA-120, “Issue Identification and Screening Process,” Revision 008.

On March 19, 2017, at 7:25 PM, the electronic pressure regulator was removed from service, due to a known degraded condition at lower power, placing Unit 1 on the mechanical pressure regulator, the second of two pressure control systems. The Unit 1 main generator was offline and main turbine trip testing was being conducted as part of the scheduled reactor shutdown, which was in-progress at the time of the scram. Following the second main turbine trip on March 20, 2017, at 2:06 AM, with reactor power at approximately 14 percent, the main turbine bypass valves began cycling due to an issue with the mechanical pressure regulator, resulting in 2-3 psig reactor pressure oscillations. Throughout the power oscillations, licensed operators continued to insert control rods as part of the shutdown. At approximately 4 percent reactor power, Unit 1 operators recognized the mechanical pressure regulator oscillations resulted in reactor pressure changes, turbine bypass valve movement, and corresponding power oscillations visible on the average power range monitors and the intermediate range monitors instruments. On March 20, 2017, at 2:27 AM, operators at Unit 1 inserted a manual reactor scram due to pressure oscillations exceeding procedural limits, established in N1-SOP-31.2, Pressure Regulator Malfunction, Revision 00300.

N1-SOP-31.2, has an override to scram the reactor if “> 2 psi pressure oscillations are experienced after transfer to the standby pressure regulator.” Or, “> +/- 3 % average power range monitor oscillations are experienced after transfer to the standby pressure regulator.” Additionally following the flow chart in N1-SOP-31.2, if both the EPR and MPR are not controlling pressure and, “Pressure is not under control,” the operators are also directed to scram the reactor. The logs stated that at 2:10 AM operators entered N1-SOP-31.2 due to indications of pressure oscillations of 2-3 psi. The inspectors questioned why the action to scram the reactor was not taken until 2:27 AM, given the post transient review written operator statements and CAPE stated the observed conditions, which met the scram override in the first step of N1-SOP-31.2.

Following the scram, Exelon conducted a post transient review and did not identify any issues with crew performance. Based on the inspectors concerns that operators did not take timely actions as required by procedures based upon the operator logs, post transient review written operator statements, CAPE and confirmed by LER 05000/2017-002-00 which contained the same statements, the NRC launched an Office of Investigations investigation (1-2018-002) to determine if operators willfully did not follow N1-SOP-31.2 instructions to scram the reactor. Based upon the evidence developed during the investigation, the NRC did not substantiate that licensed operators deliberately failed to follow a Technical Specifications required procedure. Operator logs and the LER 05000220/2017-002-00 were determined to be incorrectly documented, which was captured in IR 04187343.

The inspectors identified the following performance deficiencies during their review:

- Operator logs and basic event timeline were inaccurate and out of order
- Operators did not identify entry criteria were met for N1-SOP-31.2 for 14 minutes while indications were available in the main control room, and some of those indications were noted by operators based on post transient review written operator statements
- Operators did not enter N1-SOP-1.5, Unplanned Rx Power Change, Revision 00500, when “unplanned power change of more than 2%” was occurring
- Operators did not conduct an adequate 4.0 Critique, in accordance with OP-AA-101-113-1006, 4.0 Crew Critique Guidelines, Revision 009

These performance deficiencies were reviewed using NRC IMC 0612, Appendix B and determined to be minor since operators did eventually enter the appropriate procedure and did manually scram Unit 1 when the conditions were recognized based on testimony under oath.

Inspectors noted that N1-SOP-31.2 lacked clarity regarding which path to take when a pressure regulator is already out of service and there is no backup available. The inspectors also noted that there was no additional visual indication to aid operators in recognizing the reactor pressure oscillations in a timely manner due to the narrow range pressure indication being out of service due to the reactor being at a reduced power during the shutdown. Also, the turbine trip and HPCI actuation at 2:16 AM was a distraction which contributed to operators not entering N1-SOP 31.2 in a timely manner. The HPCI initiation was documented in operator logs, however this was not captured in LER 05000220/2017-002-00.

Exelon entered the resident inspectors' observations (IR 04070755) into the corrective action program and evaluated the usage of N1-SOP-31.2. Based upon this review, the procedure was revised to expand the range of pressure oscillation to 4 psig before taking action to scram the reactor. Exelon also entered the resident inspectors' observations concerning an inadequate 4.0 critique of operator actions during the post trip review (IR 04073439) and conducted an evaluation. Exelon recognized during the OI investigation that the timeline was not adequate, and generated IR 04091110 on January 7, 2018. Exelon updated the event timeline and issued LER 05000220/2017-002-01 on August 18, 2018 to reflect the revised timeline after the NRC OI completed on-site interviews.

Inspectors determined the causal evaluation lacked the expected level of self-criticality needed to identify performance issues related to the March 2017 scram. In conclusion, while inspectors identified numerous performance deficiencies with both operator performance and the subsequent causal evaluation, the underlying issues are considered minor, after a new timeline was established for the scram.

Observations	71152 Annual Followup of Selected Isssues
<u>Division II Emergency Diesel Generator Loss of Offsite Power/Loss of Coolant Accident testing failure to maintain voltage within the limit specified in Technical Specifications</u> The inspectors reviewed the work group evaluation, the corrective actions taken, the failure analysis, and the past operability regarding the deficiencies discovered on the Division II emergency diesel generatorautomatic voltage regulator. The inspectors concluded that the evaluation was adequate, the extent of condition was reasonable, and the corrective actions were timely.	

Minor Violation	71153 Follow-up of Events and Notices of Enforcement Discretion
This violation of minor significance was identified by inspectors and has been entered into the licensee's corrective action program, consistent with the NRC Enforcement Policy.	
Mnior Violation: During the review of Licensee Event Report (LER) 05000220/2017-002-01, Manual Reactor Scram Due to Presesure Oscillations, the inspectors identified a minor violation of 10 CFR 50.9, Completeness and accuracy of information. The LER was found to	

be inaccurate. Specifically, the LER timeline contained inaccurancies regarding the time operators entered a special operating procedure and did not include an actuation of high-pressure coolant injection (HPCI). The timeline stated at 2:10 AM operators entered the special operating procedure for Pressure Regulator Malfunction, due to reactor pressure oscillations of 2-3 psig. At 2:27 AM operators inserted a manual scram of the reactor due to pressure oscillations exceeding procedural limits.

This information was confirmed by a review of the operational logs for March 20, 2017. During OI Investigation 1-2018-002, it was determined that this entry was not accurate and although an exact time could not be established is was estimated to have been at 2:20 AM vice 2:10 AM. Additionally the timeline did not include a mention that at 2:16 AM unexpected turbine trip signal was received and HPCI was initiated due to a tagging error. Operators reset HPCI at 2:18 AM and restored main feedwater flow to restore Reactor Vessel water level. A sixty day telephone notification instead of a written licensee event report was conducted for this invalid initiation of HPCI was completed on May, 11, 2017, as EN 52747 as allowed by 10 CFR 50.73(a)(2)(iv).

Screening: Violations involving the submittal of inaccrurate or incomplete information are evaluated under Traditional Enforecement because they impact the NRC's regulatory process. Accordingly, the inspectors evlauted this issue against the example violations in Section 6.9 of the NRC Enforcement Policy. Inspectors concluded that the violation is of minor safety significance because the inaccurate information did not change the NRC's review of the licensee event report.

Enforcement: 10 CFR 50.9 requires that information provided to the Commission by a licensee shall be complete and accurate in all material respects. Contrary to the above, on June 22, 2015, Entergy provided information to the Commission that was not complete and accurate in all material respects. In the licensee event report, Exelon documented incorrect information that resulted in the NRC launching a substation further inquiry (OI investigation), but did not substantiate that licensed operators deliberately failed to follow a Technical Specifications required procedure.

Exelon identified the inaccuracy and entered the issue into the corrective action program (IR 04091110) on January 7, 2018, and submitted LER 05000220/2017-002-01 on August 18, 2018, revising the timeline to show operators entering N1-SOP-31.2 at 2:20 AM vice 2:10 AM.

The disposition of this violation closed Licensee Event Report 05000220/2017-002-01.

EXIT MEETINGS AND DEBRIEFS

The inspectors confirmed that proprietary information was controlled to protect from public disclosure.

- On October 24, 2018, the inspectors presented the quarterly resident inspection results to Mr. Peter Orphanos, Site Vice President, and other members of the Exelon staff.

DOCUMENTS REVIEWED

71111.01

Procedures
N2-MSP-GEN-V001, Revetment Ditch Structure Inspection, Revision 00501
N2-OP-70-LINEUPS, Station Electrical Feed and 115 kV Switchyard – Lineups, Revision 00000
N2-OP-70, Station Electrical Feed and 115 kV Switchyard, Revision 02400

Issue Report
04056415

Work Orders
C92770203
C93625607

Drawing
EE-MO001A, Piping & Instrumentation Diagram (P&ID) Plant Master One Line Diagram Normal Power Distribution, Revision 23

Miscellaneous
Unit 2 USAR, Section 2.5, Revision 22

71111.04

Procedures
N1-OP-45, Emergency Diesel Generators, Revision 04600
N2-OP-61B, Standby Gas Treatment System, Revision 01600
N2-OP-100A, Standby Diesel Generators, Revision 02500
N2-OP-100A-LINEUPS, Standby Diesel Generators – LINEUPS, Revision 00500

Issue Report
04171115

Drawings
PID-61B, P&ID Primary Containment Purge and Standby Gas Treatment, Revision 23
PID-104A, Standby Diesel Gen System, Revision 28

71111.05

Procedures
N1-FPM-FPE-A001, Annual Inspection of Portable Fire Extinguishers, Revision 01900
N1-FPM-FPE-M005, Fire Protection Equipment Monthly Inspection, Revision 00700
N1-FST-FPL-A001, Low Pressure Carbon Dioxide System Functional Test, Revision 01500
N1-FST-FPP-D002, Daily Fire Door Inspection, Revision 00500
N1-PFP-0101, Unit 1 Pre-Fire Plans, Revision 00500

Miscellaneous
DCD-805, Nine Mile Point Unit 1 NFPA 805 Design Criteria, Revision 1
FPEE0-03-002, Evaluation of Interim Action Taken to Prevent Personnel Injury From CO2, Revision 1
FPEE 1-91-003, Excessive Door Gap at Floor for Fire Doors, Revision 1

71111.06

Miscellaneous
Unit 1 Probabilistic Risk Assessment, Revision 1

71111.11

Procedures
N1-SOP-5.1, Loss of Control Rod Drive, Revision 00500
N1-ST-R1, Control Rod Scram Insertion Time Test, Revision 02500
N2-OP-101A, Plant Start-Up, Revision 04700

71111.13

Procedures
N1-ARP-A8, 3-4, Transformer No. 1 Off Normal, Revision 01100
N1-OP-33C, Main Transformer XF-TB01, Revision 00600
N2-OP-72, Standby and Emergency AC Distribution System, Revision 01900
N2-OP-100A, Standby Diesel Generators, Revision 02500
N2-OSP-EGS-M@001, Diesel Generator and Diesel Air Start Valve Operability Test – Division I and II, Revision 01600
OP-AA-108-117, Protected Equipment Program, Revision 005
OP-NM-108-117, Protected Equipment Program at Nine Mile Point, Revision 00500

Issue Reports

04153112	04159345	04161364	04161702
04162590	04162686	04167980	04168453
04168767			

Drawings
Drawing No. 0001040209048, Control Diagram Shutdown System, Revision 9
EE-001A, Main One Line Diagram Generator and Main Transformer, Revision 26
ESK-08SPU001, Sheet 1, A.C. Elementary Diagram Key Drawings and Unit Differential, Revision 16
PID-104A, Standby Diesel Gen System, Revision 28

Work Orders

C90937645	C92862878	C93455910	C93470881
C93471031			

71111.12

Procedure
N1-OP-40, Reactor Protection and ATWS Systems, Revision 02700

Issue Reports

02698136	02699078	02739808	03963439
03965701	03976658	03982372	04006367
04022391	04028534	04061183	04062507

Miscellaneous
Maintenance Rule System Basis Document for Nine Mile Point 1 120V AC Distribution on March 23, 2018
Maintenance Rule Basis Document, Nine Mile Point Unit 2, Standby Gas Treatment System

71111.15

Procedures
N1-ARP-A4, Control Room Panel A4, Revision 01400
N1-ST-M4A, Emergency Diesel Generator 102 and PB 102 Operability Test, Revision 02300
N1-ST-Q1A, CS Pump, Valve and SDC Water Seal Check Valve Operability Test, Revision 01600
N1-ST-Q1A, CS Pump, Valve and SDC Water Seal Check Valve Operability Test, Revision 01800
N1-ST-Q1B, CS 121 Pump, Valve and SDC Water Seal Check Valve Operability Test, Revision 02000
N2-OP-11, Service Water System, Revision 01301
OP-NM-102-1001, Operations On-Line Work Management, Revision 00000
WC-AA-101, On-Line Work Control Process, Revision 28
WC-AA-111, Surveillance Program Requirements, Revision 6

Issue Reports

04132680	04156899	04158124	04158821
04161880	04162540	04177972	

Drawings
C-19410-C, Sheet 1, Elementary Wiring Diagram 4.16kV Emergency Power Boards and Diesel Generators (#102 and #103 Control Circuits), Revision 32
C-19410-C, Sheet 2, Elementary Wiring Diagram 4.16kV Emergency Power Boards and Diesel Generators (#102 and #103 Control Circuits), Revision 21
C-19410-C, Sheet 3, Elementary Wiring Diagram 4.16kV Emergency Power Boards and Diesel Generators (#102 and #103 Control Circuits), Revision 9
LSK-23-6C, Logic Diagram Reactor Building Floor Drains, Revision 13
TL2DFR-001, Test Loop Diagram Drywell Floor Drn Tank TK1 Level 2DFR-LT106/-FT137, Revision 2

Work Orders

C93432297	C93441998	C93548675	C93665070
C93432297	C93441998	C93548675	C93625381
C93548634	C93625384		

Miscellaneous
SDBD-804, Emergency Diesel Systems, Revision 04
PCR-18-04221
PCR-18-04222

71111.18

Procedures
CNG-MN-1.01-1005, Scaffold Control, Revision 00400
MA-AA-796-024, Scaffold Installation, Inspection, and Removal, Revision 011
NES-MS-04.1, Seismic Prequalified Scaffolds, Revision 7

Issue Reports (*initiated in reponse to inspection)
02084606
02466423
04166573*

Work Order
C92998294

Miscellaneous
1-SCAFFOLD-TB-261-296, EDG 103 Room for VESDA Fire Detection Modification Upgrade, July 16, 2018
1-SCAFFOLD-TB-261-297, EDG 102 Room for VESDA Fire Detection Modification Upgrade, July 16, 2018
ECP-14-000378, RPIS Panel Door Modification Needed to Allow For the Closure of the Doors on PNL-1S19 and PNL-1S21, Revision 1

71111.19

Procedures
N1-ST-Q6D, Containment Spray System Loop 122 Quarterly Operability Test, Revision 01300
N1-ST-Q6D, Containment Spray System Loop 122 Quarterly Operability Test, Revision 01400
N1-ST-Q6D, Containment Spray System Loop 122 Quarterly Operability Test, Revision 01500
N2-OP-67, Drywell Equipment and Floor Drains System, Revision 00201
N2-OP-95A, Rod Worth Minimizer System, Revision 00604
N2-OP-100A, Standby Diesel Generators, Revision 02500
N2-OP-101A, Plant Start-Up, Revision 04700
N2-OSP-EGS-M@001, Diesel Generator and Diesel Air Start Valve Operability Test – Division I and II, Revision 01600
N2-PM-@031, Control Rod Venting and Stroking, Revision 01400

Issue Reports

04131863	04141764	04168453	04168767

Work Orders

C93613030	C93615251	C93678891	C93679300

Drawing
0007.221-001-025, Elementary Diagram Reactor Manual Control System, Revision 7

71111.20

Procedures
N2-OP-101A, Plant Start-Up, Revision 04700
N2-OP-30, Control Rod Drive, Revision 02400
N2-OP-3, Condensate and Feedwater, Revision 05100

Issue Reports
04167387
04167969

Miscellaneous
Reactivity Maneuver Plan NM2C17-SU-1, Startup Sequence, Revision 1, approved July 13, 2018
Special Reactivity Maneuver Plan NMC17-6-1, Revision 0, approved August 29, 2018
Unit 2 USAR, Section 5.2, Revision 22

71111.22

Procedures
HU-AA-104-101, Procedure Use and Adherence, Revision 5
N1-ISP-036-006, Emergency Cooling System – High Steam Flow Instrument Trip Channel Test/Calibration, Revision 01100
N1-OP-21A, Fire Protection System – Water, Revision 02400
N1-PM-M9, Monthly Operation of Fire Pumps, Revision 02
N1-ST-22, Diesel Fire Pump Instrument Air Test and Flow Verification, Revision 00500
N2-OP-101D, Power Changes, Revision 02800
N2-OSP-EGS-R002, Operating Cycle Diesel Generator 24 hour Run Division 1 and 2, Revision 01000
N2-OSP-LOG-S001, Shift Checks – Mode 1, Revision 03500
N2-OSP-RHS-Q@006, RHR System Loop 'C' Pump and Valve Operability Test and System Integrity Test, Revision 00500
N2-OSP-RSP-Q001, RPS Turbine Stop Valve Closure Logic, Control Valve Fast Closure Scram Functional Tests and Turbine Valve Cycling, Revision 01100
N2-OSP-EGS-M@001, Diesel Generator and Diesel Air Start Valve Operability Test – Division II and II, Revision 01600
OP-AA-1, Conduct of Operations, Effective Date August 21, 2014

Issue Reports

02649114	03974806	04141573	04153004
04155406	04160054	04168442	04173901
04174986			

Work Order
C93629226

Drawings
C-18017-C, Sheet 1, Emergency Cooling System P&ID, Revision 56
C-18030-C, Sheet 3, Fire Protection Water System P&ID, Revision 37
C-19841-C, Sheet 2, Elementary Wiring Diagram 125 VDC Battery Boards 11 and 12 Control Circuits, Revision 12

Miscellaneous
DCD-805, NMPNS Unit 1 NFPA 805 Design Criteria, Revision 1
Information Notice No. 86-110: Anomalous Behavior of Recirculation Loop Flow in Jet Pump BWR Plants, dated December 31, 1986
NEI Position Statement Guidance to Licensees on Complying with the Licensed Power Limit, dated June 12, 2008
NRC Regulatory Issue Summary 2007-21, Adherence to Licensed Power Limits, Revision 1, dated February 9, 2009
NRC Safety Evaluation Regarding Endorsement of NEI Guidance for Adhering to the Licensed Thermal Power Limit, dated October 8, 2008
PCR-18-03986
PCR-18-04021
PCR-18-04573
PCR-18-04819

71114.02

Issue Reports
03993592
04115422
04126142

Miscellaneous
Nine Mile Point Nuclear Generating Stations and James A. FitzPatrick Nuclear Power Plant Public Alert and Notification Design Report, Revision 2 (February 2017)

71114.03

Procedure
TQ-AA-113, ERO Training and Qualification, Revision 32

Issue Reports
02735527 04040124 04043130 04069096

71114.05

Procedures
NOSA-NMP-17-03, 2017 Emergency Preparedness Audit Report
NOSA-NMP-18-03, 2018 Emergency Preparedness Audit Report

Issue Reports
03974715
04099960
04111306

Work Orders
C93596864
C93603725
C93614859

Miscellaneous
KLD TR–823 Nine Mile Point Nuclear Station Units 1 and 2 Evacuation Time Estimates (February 8, 2016)
KLD TR–846, Nine Mile Point and James A. FitzPatrick, 2016 Population Update Analysis (September 10, 2016)
KLD TR–928, Nine Mile Point and James A. FitzPatrick, 2017 Population Update Analysis (September 9, 2017)

71114.06

Procedure
N-NM-EP-ID-U2JUL2018, Revised July 25, 2018

Issue Report
04163950

71124.05

Procedures
N1-ISP-077-005, Off Gas Sample/System Flow Instrumentation Cannel Calibration, Revision 00301
N1-ISP-112-005, Stack Flow Instrumentation Calibration, Revision 0700
N1-ISP-112-008, OGE SMS Flow Instrumentation Calibration, Revision 00500
N1-RSP-9C, Instrument Channel Calibration of Emergency Consdenser Vent Radiation Monitor, Revision 00601
N1-RSP-10C, The Use and Routine Calibration of the General Atomic High Range Gamma Radiation Monitoring System, Revision 00501
N1-RSP-13, Stack Radiation Monitor Calibration Check and Channel Test, Revision 00300
N2-IPM-GEN-@001, Safety Related Loop Calibration, Revision 00800 and Revision 00900
N2-ISP-CWS-A101, Calibration Test of the Circulating Water Cooling Tower Blowdown Lines Flow Instrument Channel, Revision 00500
N2-ISP-LWS-R101, Liquid Radwaste Discharge Flow to Lake Insturment Channel Calibration, Revision 00501
N2-ISP-SWP-R112, Service Water Effluent Lines ‘A’ and ‘B’ Flow Instrument Channel Calibration, Revision 01000
N2-RSP-RMS-R001, Main Stack Wide Range Gas Monitor System Calibration, Revision 01100
N2-RSP-RMS-R100, Operating Cycle Channel Calibration of the Flow System on the DRMS Gaseous/Particulate Process Radiation Monitors, Revision 00700
N2-RSP-RMS-R103, Channel Calibration Test of the Standby Gas Treatment System Exhaust Process Radiation Monitor, Revision 06
N2-RSP-RMS-R104, Channel Calibration Test of the Off Gas Process Radiation Monitors, Revision 01100
N2-RSP-RMS-R106, Channel Calibration Test of the Drywell High Range Area Radiation Monitor, Revision 00701
N2-RSP-RMS-R106, Channel Calibration Test of the Drywell High Range Area Radiation Monitors, Revision 00900
N2-RSP-RMS-R112, Channel Calibration Test of the Cooling Tower Blowdown Line Liquid Process Radiation Monitor, Revision 00700
N2-RSP-RMS-R113, Channel Calibration Test of the Service Water Effluent Line Process Radiation Monitors 2SWP*CAB146A and 2SWP*CAB146B, Revision 00800

N2-RSP-RMS-R116, Channel Calibration Test of the Liquid Radwaste Effluent Line Liquid Process Radiation Monitor, Revision 00700

Issue Reports

02422411	02422931	04035349	04035349

Work Orders	Title	Date
C93594663 C93315144	Stack Flow Instrumentation Calibration	June 6, 2018 May 22, 2017
C93515685 C93137950	OGE SMS Flow Instrumentation Calibration	August 8, 2017 August 7,2016
C92936275	Off Gas Sample/System Flow Instrumentation Calibration	June 8, 2017 December 11, 2014
C93050182	Calibration of the High Range Gamma Monitor	March 29, 2017
C91990615	Calibration of the High Range Gamma Monitor	April 1, 2014
C93625652 C93563705	Stack Radiation Monitor Calibration	July 17, 2018 January 22, 2018
C93330540 C92188924	Calibration of Emergency Condenser Vent Monitor	September 25,2017 June 23, 2015
C90926779 C90776169	Liquid Radwaste Discharge Flow to Lake Instrument Calibration (Note: Monitor not in use.)	July 13,2011 August 26, 2010
C93326176 C92763149 C93462398 C92795227	Service Water Effluent Lines A and B Flow Instrument Calibration	January 13, 2017 January 19, 2016 January 25, 2018 March 17, 2016
C93587633 C92894774	Circulating Water Cooling Tower Flow Instrument Calibration	December 11, 2017 December 18, 2014
C93589633 C92894774	Safety Related Loop Calibration	May 31, 2017 September 23, 2015
C93457436 C92741553 C93457438 C92741642 C93363246 C92326679	DRMS Gaseous/Particulate Flow System Calibration	April 25, 2018 April 19, 2016 April 27, 2018 April 20, 2016 June 7, 2018 December 17, 2015
C93457473	Drywell High Range Area monitor Calibration	May 3, 2018
C93502206 C93491426	Service Water Effluent Monitor (A) Calibration Service Water Effluent Monitor (B) Calibration	August 17, 2017 January 5, 2018

Work Orders	Title	Date
C93614340	Cooling Tower Blowdown Line Monitor Calibration	July 12, 2018

Miscellaneous

Portable Radiation Protection Instrument Calibrations

Instrument Model	**Instrument ID**	**Calibration Date**
AMP-100	5013-074	April 10, 2018
AMS-4	1742	March 7, 2018
BC-4	135	August 22, 2017
BC-4	945	March 13, 2018
Frisktech	A734x	July 30, 2017
Gillian	202004	April 2, 2018
Micro Rem Meter	B503B	March 23, 2018
PM-7	630	January 26, 2017
PNR-4	4464	September 19, 2017 September 19, 2018
RO-2	1558	April 2, 2017
SAC-4	689	March 5, 2018
Telepole	6610-036	November 27, 2017

Whole Body Counter Calibration Records

Number	Title	Date
Calib-17-000586	Calibration of the Canberra Accuscan II WBC System at the Exelon Nine Mile Point Nuclear Power Plant	September 13, 2017
Calib-17-000585	Calibration of the Canberra FASTSCAN WBC System at the Exelon Nine Mile Point Nuclear Power Plant	September 12, 2017
NNA*	2016 Recalibration of the Accuscan II Counting System at Nine Mile Point Nuclear Stations	September 9, 2016
NNA	2016 Recalibration of the Extended FASTSCAN Counting System at Nine Mile Point Nuclear Station	September 9, 2016

*No Number Assigned

71124.08

Miscellaneous
Shipments 15-2022; 17-2043; 17-2042; 17-2033; 16-2020

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Procedures
EP-AA-125-1001, EP Performance Indicator Guidance, Revision 10
ER-AA-600-1047, Mitigating Systems Performance Index Basis Document, Revision 11
LS-AA-2200, Mitigating System Performance Index Data Acquisition and Reporting, Revision 6
N1-MSPI-001, Nine Mile Point Unit 1 MSPI Basis Document, Revision 11
N1-ST-M4A, Emergency Diesel Generator 102 and PB 102 Operability Test, Revision 02000
N2-MSPI-001, Nine Mile Point Unit 2 MSPI Basis Document, Revision 15
N2-OP-35, Reactor Core Isolation Cooling, Revision 01500

Work Order
C93215271

Miscellaneous
NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 7

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Procedures
N2-OSP-EGS-R004, Operating Cycle Diesel Generator Simulated Loss of Offsite Power With and Without ECCS Division 1/2, Revision 01800
PI-AA-120, Issue Identification and Screening Process, Revision 8
PI-AA-125, Corrective Action Program (CAP) Procedure, Revision 6

Issue Report
04128779

Drawings
0001.040-209-010, Control Schematic, Revision 6
0001.040-209-065A, System Schematic Division I & II Diesel Generator Voltage Regulator, Revision 1
7213000710, Schematic – Remote S.V.S. Regulator 3 Phase with Paralleling, Revision E
C7206600710, Synchronous Motor Pull-Out Relay, Revision C

Work Orders
C93663763
C93664220

Miscellaneous
1011108, Portrec (NEI Peebles) Voltage Regulators for Emergency Diesel Generators, dated December 2004
5059-2018-136, Remove Division 1 and 2 Synchronous Motor Pull-Out Relay, dated April 22, 2018
ECP-18-000259, Design Equivalent Change Package for Removal of Division I and II Diesel Synchronous Motor Pullout Relay, Revision 0
Exelon Power Labs Report, Failure Analysis of a Pullout Relay, dated May 11, 2018
PORC Presentation Form, Surveillance Test Interval (STI) Evaluation NM-15-001, dated March 14, 2016

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Procedures
N2-ARP-851200, 2CEC-PNL851 Series 200 Alarm Response Procedures, Revision 00900
N2-EOP-RPV, RPV Control – Flowchart, Revision 01500
N2-SOP-08, Unplanned Power Changes, Revision 01300
N2-SOP-21, Turbine Trip, Revision 00900
N2-SOP-101C, Reactor Scram, Revision 01300

Miscellaneous
Event Notification #53565