



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

April 29, 2022

Mr. David P. Rhoades
Senior Vice President
Constellation Energy Generation, LLC
President and Chief Nuclear Officer (CNO)
Constellation Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2 – INTEGRATED
INSPECTION REPORT 05000220/2022001 AND 05000410/2022001

Dear Mr. Rhoades:

On March 31, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Nine Mile Point Nuclear Station, Units 1 and 2. On April 21, 2022, 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.

No findings or violations of more than minor significance were identified during this inspection.

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

Sincerely,

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

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

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

SUBJECT: NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2 – INTEGRATED INSPECTION REPORT 05000220/2022001 AND 05000410/2022001 DATED APRIL 29, 2022

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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: 05000220/2022001 and 05000410/2022001

Enterprise Identifier: I-2022-001-0049

Licensee: Constellation Energy Generation, LLC

Facility: Nine Mile Point Nuclear Station, Units 1 and 2

Location: Oswego, NY

Inspection Dates: January 1, 2022 to March 31, 2022

Inspectors: G. Stock, Senior Resident Inspector
C. Kline, Resident Inspector
B. Sienel, Resident Inspector
N. Floyd, Senior Reactor Inspector
S. Haney, Senior Project Engineer
C. Hobbs, Reactor Inspector
S. Wilson, Senior Health Physicist

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

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Nine Mile Point Nuclear Station, Units 1 and 2, 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

No findings or violations of more than minor significance were identified.

Additional Tracking Items

None.

PLANT STATUS

Unit 1 operated at or near rated thermal power for the entire inspection period.

Unit 2 began the inspection period at rated thermal power. On January 7, 2022, the unit was downpowered to 78 percent to perform planned control rod channel interference testing and a control rod pattern adjustment, and returned to rated thermal power on January 8, 2022. On January 28, 2022, the unit began end-of-cycle coastdown. On February 11, 2022, the unit was downpowered to 85 percent to avoid a known oscillation region during end-of-cycle coastdown. On March 7, 2022, the unit was shut down for a planned refueling outage. Startup was commenced on March 25, 2022, and rated thermal power was reached on March 29, 2022. Later that day, the unit was downpowered to 80 percent for a planned rod pattern adjustment. During the downpower, a main turbine control valve malfunction required an additional downpower to 60 percent. The unit returned to rated thermal power on March 31, 2022, 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 performed activities described in IMC 2515, Appendix D, "Plant Status," conducted routine reviews using IP 71152, "Problem Identification and Resolution," observed risk-significant activities, and completed on-site portions of IPs. 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.

On February 1, 2022, the operating license for Nine Mile Point Nuclear Station, held by Exelon Generation Company, LLC, was transferred to Constellation Energy Generation, LLC (Constellation). While some or all of the inspections documented in this report were performed while the license was held by Exelon Generation Company, LLC, this report will refer to the licensee as Constellation throughout.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

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

- (1) The inspectors evaluated the adequacy of the overall preparations to protect risk-significant systems due to a winter storm warning on March 11, 2022.

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (7 Samples)

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

- (1) Unit 2 reactor core isolation cooling system on January 26, 2022
- (2) Unit 1 reactor building closed loop cooling system on February 7, 2022
- (3) Unit 2 'C' residual heat removal system on February 7, 2022
- (4) Unit 2 Division II emergency diesel generator on February 22, 2022
- (5) Unit 2 'B' residual heat removal system in shutdown cooling on March 8, 2022
- (6) Unit 2 Division I emergency diesel generator on March 10, 2022
- (7) Unit 2 'A' spent fuel pool cooling system on March 15, 2022

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (9 Samples)

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

- (1) Unit 2 radwaste building 261'/265', condensate storage building, fire area 55, on February 1, 2022
- (2) Unit 2 reactor building 289', fire areas 34 and 35, on February 10, 2022
- (3) Unit 2 reactor building 240' north, fire area 1, on February 14, 2022
- (4) Unit 1 turbine building 261' west, fire area 5, on February 17, 2022
- (5) Unit 2 reactor building 175' north, fire area 1, on February 28, 2022
- (6) Unit 2 reactor building, primary containment steam tunnel, fire area 50, on March 7, 2022
- (7) Unit 2 turbine building, condenser, fire area 50, on March 7, 2022
- (8) Unit 2 turbine building, feedwater heater bays, fire area 50, on March 9, 2022
- (9) Unit 2 reactor building, drywell, fire area 5, on March 16, 2022

71111.06 - Flood Protection Measures

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

- (1) The inspectors evaluated internal flooding mitigation protections in the Unit 1 cable spreading room on February 28, 2022.

71111.07A - Heat Exchanger/Sink Performance

Annual Review (IP Section 03.01) (1 Sample)

The inspectors evaluated readiness and performance of:

- (1) Unit 2 'B' residual heat removal heat exchanger

71111.08G - Inservice Inspection Activities (BWR)

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

- (1) The inspectors verified that the reactor coolant system boundary, reactor vessel internals, risk-significant piping system boundaries, and containment boundary are appropriately monitored for degradation, and that repairs and replacements were appropriately fabricated, examined and accepted by reviewing the following activities from March 7 to March 17, 2022:
 - Automated phased array ultrasonic testing of the N1B reactor recirculation nozzle to safe-end dissimilar metal weld, 2RPV-KB02 (NDE Report N2R18-APR-02).
 - Automated phased array ultrasonic testing of the N4E reactor feedwater nozzle to safe-end dissimilar metal weld, 2RPV-KB21 (NDE Report N2R18-APR-09).
 - Manual ultrasonic testing of the reactor water cleanup system pipe-to-pipe and valve-to-pipe welds, 2WCS-09-14-FW039 / -FW040 (NDE Reports 2R18-ISI-UT-002 / -003).
 - Visual examinations of the containment, including accessible portions of the drywell and suppression chamber metal liner (Work Order [WO] C93672957)
 - Welding activities associated with the modification of the instrument air check valve, 2IAS*V450, under engineering change ECP-21-000088 (Work Order [WO] 93782709). This included liquid penetrant testing of two pipe-to-valve welds, FW-03 and FW-04 (NDE Report BOP-PT-22-004).
 - Flaw evaluation of the embedded reflector identified during the spring 2020 refueling outage using automated phased array UT on the N2J reactor recirculation nozzle to safe-end dissimilar metal weld (NDE Report N2R17-APR-06). The flaw was determined to be acceptable for continued service.

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 Unit 1 operations personnel during control rod exercising operability testing on March 5, 2022.
- (2) The inspectors observed Unit 2 operations personnel during the plant shutdown for refueling outage N2R18 on March 6, 2022.

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

- (1) The inspectors observed a Unit 2 simulator evaluation that included an instrument air compressor failure, reactor core isolation cooling system inoperability, and a small loss of coolant accident with additional failures that required the depressurization of the reactor on January 25, 2022.

- (2) The inspectors observed a Unit 1 simulator evaluation that included the inadvertent opening of an electromatic relief valve, a loss of offsite power, an emergency diesel generator failure to start, and a steam leak in the drywell on February 2, 2022.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (1 Sample)

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

- (1) Unit 2 Division I emergency diesel generator jacket water pump

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (9 Samples)

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

- (1) Unit 2 elevated risk during planned 'B' residual heat removal pump maintenance on January 4, 2022
- (2) Unit 2 elevated risk during emergent work on the Division I emergency diesel generator starting air system on January 20, 2022
- (3) Unit 1 elevated risk during emergent work on the 'C' instrument air compressor on February 16, 2022
- (4) Unit 2 elevated risk during planned Division I emergency diesel generator maintenance on February 22, 2022
- (5) Unit 2 elevated risk during emergent work on the 'B' service water pump on March 2, 2022
- (6) Unit 2 elevated risk during a planned 115-kilovolt Line 5 outage on March 6, 2022
- (7) Unit 2 elevated risk during a planned reactor cavity flood-up on March 8, 2022
- (8) Unit 2 elevated risk during planned maintenance on SWP*MOV66B, cooling water to Division II emergency diesel generator, on March 10–12, 2022
- (9) Unit 2 elevated risk during a planned reactor cavity draindown on March 22, 2022

71111.15 - Operability Determinations and Functionality Assessments

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

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

- (1) Unit 2 Division I emergency diesel generator slow start on January 3, 2022
- (2) Unit 2 Division I emergency diesel generator starting air compressor 'B' failure on January 18, 2022
- (3) Unit 2 Division I emergency diesel generator emergency start solenoid valve air leaks on January 20, 2022

- (4) Unit 1 safety relief valve elevated discharge temperature indications on February 1, 2022
- (5) Unit 1 emergency diesel generator 103 starting flywheel chipped tooth on February 15, 2022
- (6) Unit 1 containment spray raw water 122 rate set valve unable to operate on February 24, 2022
- (7) Unit 1 core spray topping pump 111 pump-bearing oil leak on March 2, 2022
- (8) Unit 2 Division III diesel under voltage relay failure to reset after testing on March 4, 2022
- (9) Unit 2 main steam isolation valve slow fast closure times on March 7, 2022

71111.18 - Plant Modifications

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

The inspectors evaluated the following temporary or permanent modifications:

- (1) Permanent Modification: ECP-21-000437, Unit 2 Division II Emergency Diesel Generator Governor Booster
- (2) Permanent Modification: ECP-21-000454, Unit 2 Digital Electro-Hydraulic Control (DEHC) Low Pass Filter Modification
- (3) Permanent Modification: ECP-21-000088, Unit 2 PCIV [primary containment isolation valve] Supply Nitrogen Line Primary Containment Inboard Isolation Re-Design

71111.19 - Post-Maintenance Testing

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

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

- (1) Unit 2 Division I emergency diesel generator jacket water pump following replacement on February 23, 2022
- (2) Unit 2 'B' service water pump following a failure to start on March 2, 2022
- (3) Unit 2 Division II emergency diesel generator following governor oil booster installation on March 21, 2022
- (4) Unit 2 'B' residual heat removal system following heat exchanger inspection on March 25, 2022
- (5) Unit 2 drywell nitrogen supply system following solenoid operated valve replacement on March 28, 2022

71111.20 - Refueling and Other Outage Activities

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

- (1) The inspectors evaluated Unit 2 refueling outage N2R18 from March 6 to March 27, 2022.

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance testing activities to verify system operability and/or functionality:

Surveillance Tests (other) (IP Section 03.01) (8 Samples)

- (1) N1-ST-M4A, Emergency Diesel Generator 102 and PB 102 Operability Test, on January 24, 2022
- (2) N2-OSP-CSL-Q@002, LPCS [low pressure core spray] Pump and Valve Operability and System Integrity Test, on February 28, 2022
- (3) N1-ST-Q1A, Core Spray 111 Pump, Valve and Shutdown Cooling Water Seal Check Valve Operability Test, on March 1, 2022
- (4) N2-OSP-MSS-CS001, Main Steam Isolation Valve Operability Test, on March 7, 2022
- (5) N2-OSP-RHS-R001, Division II ECCS [emergency core cooling system] Functional Test, on March 9, 2022
- (6) N2-OSP-SLS-R001, Standby Liquid Control Manual Initiate Actuation and ASME XI Pressure Test, on March 16, 2022
- (7) N2-OSP-ADS-R002, ADS [automatic depressurization system] Functional Test and Remote Shutdown System Test, on March 19, 2022
- (8) N2-OSP-EGS-R001, Diesel Generator ECCS Start and Load Reject Division II, on March 20, 2022

Inservice Testing (IP Section 03.01) (2 Samples)

- (1) N2-OSP-ICS-Q@002, Reactor Core Isolation Cooling Pump and Valve Operability Test and System Integrity Test and ASME XI Functional Test and Analysis, on February 10, 2022
- (2) N2-ISP-RRC-R001, ARI [alternate rod insertion] Function of RRCS [redundant reactivity control system], on March 7, 2022

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

- (1) N2-OSP-MSS-003, Unit 2 Main Steam Isolation Valve Leak Rate Test, on March 7, 2022
- (2) N2-OSP-MSS-004, Unit 2 Main Steam Isolation Valve Leak Rate Test (Reactor Vessel Head Removed), on March 25, 2022

RADIATION SAFETY

71124.01 - Radiological Hazard Assessment and Exposure Controls

Radiological Hazard Assessment (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated how the licensee identifies the magnitude and extent of radiation levels and the concentrations and quantities of radioactive materials and how Constellation assesses radiological hazards.

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

- (1) The inspectors evaluated how the licensee instructs workers on plant-related radiological hazards and the radiation protection requirements intended to protect workers from those hazards.

Contamination and Radioactive Material Control (IP Section 03.03) (2 Samples)

The inspectors observed/evaluated the following licensee processes for monitoring and controlling contamination and radioactive material:

- (1) Workers exiting the Unit 2 radiologically controlled area during refueling outage N2R18
- (2) Licensee surveys of contaminated equipment on the refuel floor during refueling outage N2R18

Radiological Hazards Control and Work Coverage (IP Section 03.04) (5 Samples)

The inspectors evaluated the licensee's control of radiological hazards for the following radiological work:

- (1) Unit 2 outage refuel floor activities, low power range monitor exchange, and supporting activities
- (2) Unit 2 in-vessel inspection and supporting activities
- (3) Unit 2 refuel floor equipment decontamination activities
- (4) Unit 2 drywell feedwater nozzle inspection activities
- (5) Unit 2 safety relief valve maintenance in the drywell

High Radiation Area and Very High Radiation Area Controls (IP Section 03.05) (2 Samples)

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

- (1) High Radiation Area in the Unit 2 reactor building valve pit, 196' elevation
- (2) Locked High Radiation Areas in the Unit 2 drywell

Radiation Worker Performance and Radiation Protection Technician Proficiency (IP Section 03.06) (1 Sample)

- (1) The inspectors evaluated radiation worker and radiation protection technician performance as it pertains to radiation protection requirements.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

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

- (1) Unit 1 (January 1, 2021 through December 31, 2021)

- (2) Unit 2 (January 1, 2021 through December 31, 2021)

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

- (1) Unit 1 (January 1, 2021 through December 31, 2021)
- (2) Unit 2 (January 1, 2021 through December 31, 2021)

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

- (1) Unit 1 (January 1, 2021 through December 31, 2021)
- (2) Unit 2 (January 1, 2021 through December 31, 2021)

71152A - Annual Follow-up Problem Identification and Resolution

Annual Follow-up of Selected Issues (Section 03.03) (1 Sample)

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

- (1) IR 04436618 - Nine Mile Point Control Rod Blade Technical Evaluation

INSPECTION RESULTS

Observation: Nine Mile Point Control Rod Blade Technical Evaluation	71152A
<p>On November 23, 2020, General Electric Hitachi (GEH) released Safety Communication 20-06 (SC 20-06) Revision 0, describing the discovery that Boron 10 (B-10) depletion had been underpredicted in the top 6-inch node of the neutron absorber section of control rod blades currently in use in boiling water reactors in the United States. Nine Mile Point Nuclear Station was on the list of plants affected by this issue. In Revision 0 of the Safety Communication, the population of control rod blades affected was restricted to Original Equipment Manufacturer (OEM) series D-100 control rod blades, still in operation from the 1970s and 1980s. On February 26, 2021, GEH issued Revision 1 to SC 20-06, in which it was determined that the population of control rod blades affected by the underprediction of B-10 in the tip segment included all control rod blades that did not contain Hafnium (Hf) in the tips, not just OEM D-100 control rod blades. This greatly increased the population of control rod blades affected by this issue.</p> <p>Control rod blades deplete the B-10 isotope as they absorb neutrons when they are inserted into an operating reactor core. Control rod blades are typically fully withdrawn from the core when the reactor is at full power. However, the tips of the control rod blades still experience some thermal neutron flux. The B-10 depletion in the top node of the control rod blade is accounted for in engineering analysis by adding a "tip adder" factor in the B-10 depletion calculation for each control rod blade. Safety Communication SC 20-06 stated that the tip adder factor was much larger than previously calculated, for control rod blades without Hf in the tips. General Electric manufactured control rod blades with Hf tips for a period of time in the 1980s and 1990s that are excluded from the tip adder issue described in SC 20-06. All other control rod blade models, including the OEM blades, are affected by the tip adder issue described in SC 20-06. The higher depletion values in the control rod blade tips for multiple control rod blade types may cause the control rod blade to exceed its effective neutron absorbing capability before the end of the operating fuel cycle. This has the potential to</p>	

decrease the overall shutdown margin (SDM), which is the ability of all the control rods, except for the most reactive control rod, to shut down the reactor core in all anticipated normal and accident scenarios.

In Revision 1 to SC 20-06, GEH recommended all customers ensure that adequate SDM was available in the current operating fuel cycle until the end of the fuel cycle, once the amount of B-10 depletion was determined in all control rod blade tips. GEH recommended this be done for all General Electric control rod blades that did not contain Hf tips, as well as alternate vendor control rod blades. GEH also recommended all customers assess the impact of control rod blades exceeding their nuclear end of life (NEOL) criteria - the ability of the control rod blade to effectively absorb neutrons - for future fuel cycles beyond the current operating fuel cycle.

Following issuance of GEH SC 20-06, Revision 1, Nine Mile Point Unit 1 entered a refueling outage in March 2021. A control rod blade depletion engineering evaluation was performed, taking into account the new tip adder calculation in SC 20-06. It was determined that two control rod blades that had been located in higher power locations in the previous fuel cycle would be shuffled to two lower power locations in the core for the current Unit 1 operating fuel cycle. No control rod blades in the previous or current fuel cycle have exceeded their NEOL criteria, thus requiring replacement.

In July 2021, Exelon Nuclear Fuels validated that adequate SDM existed for the remainder of the current fuel cycle for Nine Mile Point Unit 2, and that thermal limit margins were not impacted. One control rod blade on the core periphery was predicted to exceed its NEOL criteria due to the tip adder issue described in SC 20-06, before the end of the Unit 2 fuel cycle in March 2022. This blade, along with six other control rod blades, are scheduled for replacement in the upcoming refueling outage. In September 2021, General Electric Global Nuclear Fuels completed an analysis to confirm that SDM would be maintained above the technical specification limit for the remainder of the Unit 2 fuel cycle. Exelon procedure NF-AB-135-1410, "BWR Control Blade Lifetime Management," contains guidance for calculating B-10 depletion in all models of control rod blades currently in operation in the nuclear fleet. This procedure will require an update to incorporate the new guidance from SC 20-06, for estimating the tip adder factor for non-Hf tipped control rod blades. Issue Report 04242262 is tracking completion of this procedural update.

The inspectors interviewed engineering staff from Exelon Nuclear Fuels and Nine Mile Point Reactor Engineering to discuss corrective actions taken in response to GEH SC 20-06, and reviewed shutdown margin and control rod blade depletion engineering evaluations. The inspectors also reviewed the corrective actions taken and planned for responding to GEH SC 20-06 entered into the corrective action system. No performance deficiencies were identified.

Corrective Action References: 04242262, 04386300, 04436618

EXIT MEETINGS AND DEBRIEFS

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

- On April 21, 2022, the inspectors presented the integrated inspection results to Mr. Peter Orphanos, Site Vice President, and other members of the licensee staff.

- On February 8, 2022, the inspectors presented the control rod blade technical evaluation problem identification and resolution inspection results to Philip Nichols, Manager Reactor Engineering, and other members of the licensee staff.
- On March 17, 2022, the inspectors presented the Unit 2 inservice inspection results to Mr. Peter Orphanos, Site Vice President, and other members of the licensee staff.
- On March 17, 2022, the inspectors presented the radiological hazard assessment and exposure controls inspection results to Mr. Peter Orphanos, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Procedures	N1-OP-64	Meteorological Monitoring	02100
		N2-OP-102	Meteorological Monitoring	02800
		OP-AA-108-111-1001	Severe Weather and Natural Disaster Guidelines	24
71111.04	Drawings	C-18022-C	Piping & Instrumentation Diagram, Reactor Building Closed Loop Cooling System	55
		PID-031A, B, E	Piping & Instrumentation Diagram Residual Heat Removal System	27
		PID-31G	Piping & Instrumentation Diagram Residual Heat Removal	15
		PID-35A	Piping & Instrumentation Diagram Reactor Core Isolation Cooling	17
		PID-35B	Piping & Instrumentation Diagram Reactor Core Isolation Cooling	13
		PID-38B	Piping & Instrumentation Diagram Fuel Pool Cooling & Cleanup	15
		PID-38C	Piping & Instrumentation Diagram Fuel Pool Cooling & Cleanup	17
	Procedures	N1-OP-11	Reactor Building Closed Loop Cooling System	03400
		N2-OP-100A	Standby Diesel Generators	03200
		N2-OP-100A-LINEUPS	Standby Diesel Generators - LINEUPS	00500
		N2-OP-31	Residual Heat Removal System	03700
		N2-OP-31-LINEUPS	Residual Heat Removal System	003
		N2-OP-38	Spent Fuel Cooling and Cleanup System	2700
71111.05	Corrective Action Documents	04477281		
	Drawings	B-40143-C	Fire Zones Reactor Building - Fl. El. 261' Turbine Building - Fl. El. 261' Fire Rated Walls and Slabs	10
	Fire Plans	N2-FPI-PFP-0201	Unit 2 Pre-Fire Plans	06
71111.06	Corrective Action Documents	04416206		
		04477927		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		04661043		
71111.07A	Corrective Action Documents	04484882		
		04486864		
	Procedures	ER-AA-340-1002	Service Water Heat Exchanger Inspection Guide	11
		S-TDP-REL-0102	Service Water Heat Exchanger and Component Inspection Guide	03
Work Orders	C93738267			
71111.08G	Corrective Action Documents	04327298		
	Corrective Action Documents Resulting from Inspection	04484400		
	Engineering Evaluations	ECP-20-000224	Recirculation Inlet Nozzle DMW No. 2RPV-KB11 (N2J) Flaw Evaluation	03/25/2020
	Miscellaneous	ER-NM-330-2001	ISI Program Plan Fourth Ten-Year Inspection Interval	Revision 3
		ER-NM-330-2004	Risk Informed Inservice Inspection Program Fourth Ten-Year Inspection Interval	Revision 0
	Procedures	ER-AA-335-018	Visual Examination of ASME IWE Class MC and Metallic Liners of Class CC Components	Revision 15
		ER-AA-335-030	Ultrasonic Examination of Ferritic Piping Welds	Revision 5
		ER-AA-335-1000	Nondestructive Examination (NDE)	Revision 16
		GEH-UT-254	Automated Phased Array Ultrasonic Examination of Dissimilar Metal Welds with the TOPAZ	Version 1
			WPS 8-8-GTSM	Welding Procedure Specification Record for Manual GTAW and SMAW of P-Number 8 to P-Number 8 Base Metal
71111.11Q	Procedures	N1-ST-W1	Control Rod Exercising Operability Test	02300
		N2-OP-101C	Plant Shutdown	04100
		N2-OP-29	Reactor Recirculation System	03400
		N2-OP-31	Residual Heat Removal System	03700
71111.12	Procedures	N2-MSP-EGS-R001	Diesel Generator Inspection Division 1 and 2	025
	Work Orders	C938144677		
71111.13	Corrective Action	04481795		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Documents			
	Procedures	N2-OP-19-Lineups	Instrument and Service Air Systems	8
		N2-OP-70	Station Electrical Feed and 115KV Switchyard	02800
		N2-PM-082	RPV [reactor pressure vessel] Flood-Up/Draindown	01900
		OP-NM-108-117	Protected Equipment Program at Nine Mile Point	5
		OP-NM-108-117	Protected Equipment Program at Nine Mile Point	00500
		OU-NM-103-101	Shutdown Safety Management Program	0700
71111.15	Calculations	002N3714	Nine Mile Point Nuclear Station Unit 1 TRACG-LOCA Analysis for GNF2 Fuel	0
	Corrective Action Documents	04061889		
		04470659		
		04475343		
		04476776		
		04481649		
		04482642		
		04483059		
	04488015			
	Drawings	0001040209048	Control Diagram Shutdown System	13.00
	Engineering Changes	ECP-22-000147	Technical Evaluation for MSIV Failed Stroke Time Extent of Condition	0000
	Miscellaneous	NEI 06-09-A	Risk-Informed Technical Specifications Initiative 4b: Risk-Managed Technical Specifications (RMTS) Guidelines	0
		Purchase Order 00802656	Service, Repair, Refurbishment of MSIV Actuator Air Pack	2
		RICT Record for March 28, 2022	Failed MSIV 7D RPS Testing	04/06/2022
	Procedures	N1-OP-1	Nuclear Steam Supply System	07700
		N2-OP-100A	Standby Diesel Generators	03100
		N2-OSP-EGS-M@001	Diesel Generator and Diesel Air Start Valve Operability Test-Division I and II	024T1
OP-AA-108-118		Risk Informed Completion Time	2	
71111.18	Corrective Action	02547530		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Documents	02689624		
		04359704		
		04365824		
		04428910		
		04482114		
	Engineering Changes	ECP-21-000088	PCIV Supply Nitrogen Line Primary Containment Inboard Isolation Re-Design	0000
		ECP-21-000437	EDG Governor Booster	0000
		ECP-21-000454	Digital Electro-Hydraulic Control (DEHC) Low Pass Filter Modification	0
	Miscellaneous		FAT/SAT Testing for DEHC Low Pass Filter Mod	0000
	Procedures	N2-OSP-EGS-M@0001	Diesel Generator and Diesel Air Start Valve Operability Test - Division I and II	024T1
	Work Orders	C93782709		
C93809087				
C93813137				
71111.19	Corrective Action Documents	04480094		
		04481795		
		04484882		
		04486059		
	Corrective Action Documents Resulting from Inspection	04486063		
	Procedures	GAP-HSC-09	System Aging Inspection and Cleanliness Controls	02000
		N2-MSP-EGS-R001	Diesel Generator Inspection Division I and II	02400
		N2-OSP-EGS-M@0001	Diesel Generator and Diesel Air Start Valve Operability Test - Division I and II	02400.01
		N2-OSP-RHS-Q@005	RHR System Loop B Pump and Valve Operability Test, System Integrity Test and ASME XI Pressure Test	01500
		N2-OSP-RHS-R001	Division II ECCS Functional Test	00900

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		S-EPM-GEN-004	Insulation of Power, Control, and Instrument Cable Connections	00700
	Work Orders	C93738267		
		C93782709		
		C93814677		
		C93825512		
71111.20	Corrective Action Documents	04482986		
		04482995		
		04483785		
		04484026		
		04484553		
	Corrective Action Documents Resulting from Inspection	04485270		
		04484400		
		04486063		
	Miscellaneous	NM2C19-SU	Reactivity Maneuver Plan	0
	Procedures	LS-AA-119	Fatigue Management and Work Hour Limits	15
		N2-FHP-13.3	Core Shuffle	01200
		N2-OP-101A	Plant Start-up	05400
		N2-OP-38	Spent Fuel Cooling and Cleanup System	02700
		N2-OSP-NMS-@002	Source Range Monitor Check During Core Offload/Reload	00201
OP-AA-109-101		Personnel and Equipment Tagout Process	16	
OP-AA-300		Reactivity Management	14	
OP-AA-300-1520		Reactivity Management - Fuel Handling, Storage and Refueling	7	
OU-NM-103-101		Shutdown Safety Management Program	00700	
	OU-NM-4001	Refueling Operations	00800	
71111.22	Corrective Action Documents	04481649		
		04482027		
		04483059		
		04483200		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		04483399		
		04485322		
	Miscellaneous	Technical Evaluation N2R18	MSIV Leak Rate Tests	Approved 03/17/2022
	Procedures	N1-ST-M4A	Emergency Diesel Generator 102 and PB 102 Operability Test	03000
		N1-ST-Q1A	CS 111 Pump, Valve and SDC Water Seal Check Valve Operability Test	02200
		N2-ISP-RRC-R001	ARI [alternate rod insertion] function of RRCS [redundant reactivity control system]	00700
		N2-OSP-ADS-R002	ADS System Functional Test and Remote Shutdown System Test	009
		N2-OSP-CSL-Q@002	LPCS Pump and Valve Operability and System Integrity Test	01500
		N2-OSP-EGS-R001	Diesel Generator ECCS Start and Load Reject Division II	9
		N2-OSP-ICS-Q@002	RCIC Pump and Valve Operability Test and System Integrity Test and ASME XI Functional Test and Analysis	01600
		N2-OSP-MSS-003	Main Steam Isolation Valve Leak Rate Test	00300
		N2-OSP-MSS-004	Main Steam Isolation Valve Leak Rate Test (Reactor Vessel Head Removed)	00200
		N2-OSP-MSS-CS001	Main Steam Isolation Valve Operability Test	01000 and 01100
N2-OSP-SLS-R001	Standby Liquid Control Manual Initiate Actuation and ASME XI Pressure Test	01100		
71151	Procedures	NEI 99-02	Regulatory Assessment Performance Indicator Guideline	7
71152A	Corrective Action Documents	04242262		
		04386300		
		04436618		
	Engineering Evaluations	ECP-20-000291	Control Blade Replacement Strategy for Nine Mile Point Unit 1 Cycle 25 (Reload 26)	0
		ECP-21-000248	Control Blade Replacement Strategy for Nine Mile Point Unit 2 (Reload 18)	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		ECP-21-000380	SC 20-06: Nine Mile Point Unit 2 Cycle 18 SDM and MSBWP Evaluation	0
	Miscellaneous	General Electric Hitachi Safety Communication 20-06, Rev. 1	Impact of Ex-core Flux on Control Rod Lifetime Limits	02/26/2021
	Procedures	NF-AB-130-3690	Maximum Subcritical Banked Withdrawal Position	10
		NF-AB-135-1410	BWR Control Blade Lifetime Management	16