



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
475 ALLENDALE RD, STE 102
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

June 29, 2023

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 – BIENNIAL
PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT
05000220/2023010 AND 05000410/2023010**

Dear David Rhoades:

On June 1, 2023, the U.S. Nuclear Regulatory Commission (NRC) completed a problem identification and resolution inspection at your Nine Mile Point Nuclear Station, Units 1 and 2 and discussed the results of this inspection with Peter Orphanos, Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspection team reviewed the station's problem identification and resolution program and the station's implementation of the program to evaluate its effectiveness in identifying, prioritizing, evaluating, correcting problems, and to confirm that the station was complying with NRC regulations and licensee standards for problem identification and resolution programs. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

The team also evaluated the station's processes for use of industry and NRC operating experience information and the effectiveness of the station's audits and self-assessments. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

Finally, the team reviewed the station's programs to establish and maintain a safety-conscious work environment and interviewed station personnel to evaluate the effectiveness of these programs. Based on the team's observations and the results of these interviews the team found no evidence of challenges to your organization's safety-conscious work environment. Your employees appeared willing to raise nuclear safety concerns through at least one of the several means available.

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* (CFR) 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 – BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000220/2023010 AND 05000410/2023010 DATED JUNE 29, 2023

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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: 05000220/2023010 and 05000410/2023010

Enterprise Identifier: I-2023-010-0015

Licensee: Constellation Energy Generation, LLC

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

Location: Oswego, NY

Inspection Dates: May 8, 2023 to June 1, 2023

Inspectors: C. Highley, Senior Resident Inspector
C. Kline, Resident Inspector
J. Schoppy, Senior Reactor Inspector
R. Vadella, Project Engineer

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 a biennial problem identification and resolution inspection at Nine Mile Point, 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.

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.

OTHER ACTIVITIES – BASELINE

71152B - Problem Identification and Resolution

Biennial Team Inspection (IP Section 03.04) (1 Sample)

- (1) The inspectors performed a biennial assessment of the effectiveness of the licensee's Problem Identification and Resolution program, use of operating experience, self-assessments and audits, and safety-conscious work environment.
 - Problem Identification and Resolution Effectiveness: The inspectors assessed the effectiveness of the licensee's Problem Identification and Resolution program in identifying, prioritizing, evaluating, and correcting problems. The inspectors also conducted a review of the Unit 1 Low Pressure Core Spray system, Unit 2 2RTX-XSR1B and 1A AC power system transformers and the Division I and II AC power busses, Unit 1 Emergency Diesel Generator (EDG) 102, and a five-year review of the Unit 1 DC power systems, specifically the 125 VDC, and the Unit 2 Reactor Protective system. The corrective actions for the following non-cited violations (NCV): NCV 05000410/2022002-02, NCV 05000220/2021012-01, NCV 05000220, 05000410/2021004-01, and NCV 05000220/2022002-01.
 - Operating Experience: The inspectors assessed the effectiveness of the licensee's processes for use of operating experience.
 - Self-Assessments and Audits: The inspectors assessed the effectiveness of the licensee's identification and correction of problems identified through audits and self-assessments.
 - Safety-Conscious Work Environment: The inspectors assessed the effectiveness of the station's programs to establish and maintain a safety-conscious work environment.

INSPECTION RESULTS

Assessment	71152B
<p><u>Corrective Action Program Effectiveness:</u></p> <p>The inspectors determined that Constellation’s corrective action program for Nine Mile Point was generally effective and adequately supported nuclear safety and security.</p> <p><u>Identification:</u> The team determined that, in general, the station identified issues and entered them into the corrective action program at a low threshold. However, the team has one documented observation and one minor performance deficiency with a violation, regarding plant conditions that were not previously captured in Nine Mile Point’s corrective action program. The observation and minor violation are documented below.</p> <p><u>Prioritization and Evaluation:</u> Based on the samples reviewed, the inspectors determined that, in general, Constellation appropriately prioritized and evaluated issues commensurate with the safety significance of the identified problem.</p> <p><u>Corrective Action:</u> The inspectors determined that the station’s resolution of problems was effective. In most cases, Constellation implemented corrective actions to resolve problems in a timely manner. However, the team has an observation in which the resolution of items was not in accordance with the station’s procedures. The observation is documented below.</p>	
Assessment	71152B
<p><u>Operating Experience:</u> The team determined that Constellation appropriately evaluated industry operating experience for the relevance to the facility. Constellation appropriately incorporated both external and internal operating experience into the plant procedures and processes.</p>	
Assessment	71152B
<p><u>Self-Assessment and Audits:</u> The team reviewed a sample of self-assessments and audits to assess whether Constellation was identifying and addressing performance trends. In general, the team concluded that Constellation had an effective self-assessments and audits process.</p>	
Assessment	71152B
<p><u>Safety-Conscious Work Environment:</u> The team conducted interviews with 24 employees from a cross-section of the organization, including operations, maintenance, engineering, security, chemistry, radiation protection, and emergency planning. The team also interviewed the employee concerns program manager and reviewed nuclear safety culture meeting minutes. The team determined that the site personnel are willing to raise safety concerns.</p>	
Minor Violation	71152B
<p>Minor Violation: The inspectors identified a violation of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings.” Specifically, in May 2018, Constellation implemented work order C93407487 to replace a valve on the reactor core isolation cooling (RCIC) steam inlet piping, which required installation of a block in the RCIC spring can. Constellation failed to remove the block from the RCIC spring can upon restoration from the work, contrary to the work instructions. The failure to remove the block resulted in increasing the rigidity of the support and increasing the local piping stress of the RCIC system at the location of the spring can.</p>	

Screening: The inspectors determined the performance deficiency was minor in accordance with IMC 0612, Appendix B, "Issue Screening Directions." The increase in stress on the piping at that location due to the spring can having the block installed was small (approximately 8100 psi) as compared to the allowable amount (approximately 22,500 psi), because it did not adversely affect any cornerstones objectives, did not lead to a more significant safety concern, and was not a precursor to a more significant event. Specifically, the increased stress on the steam piping since May 2018 did not impact the operability, availability, or reliability of the RCIC pump.

Enforcement: Constellation has taken action to restore the spring can's configuration by removing the block. 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," constitutes a minor violation that is not subject to enforcement action in accordance with the NRC's Enforcement Policy.

Observation: Plant Conditions Not Previously Identified by Licensee Staff	71152B
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The team identified an observation regarding plant conditions that were not previously captured in Nine Mile Point's corrective action program. Specifically, the team performed walkdowns of the accessible areas and observed a variety of adverse conditions that should have been identified and evaluated by the licensee. Examples of conditions include:

- IR 04676765, transient combustibles in an exclusion zone
- IR 04676978, transient combustibles in 237' reactor building
- IR 04677165, leak from battery 12 cell 18
- IR 04677190, 2SWP*STR4C packing leakage
- IR 04677192, temporary power stored by core spray topping pumps
- IR 04677330, NRC identified evidence of prior leakage 2CSH*V92
- IR 04677389, packing leak 2FPW-V316
- IR 04677438, protective conduit deficiency off Division III EDG
- IR 04677441, protective conduit degraded from 2EGS*TE1021A
- IR 04677637, dissimilar configuration between divisions
- IR 04677650, oil leaks from 2EGS*EG2 Division III diesel
- IR 04679834, small leak from 2ICS*V113 ICS pump suction vent
- IR 04676986, RCIC steam pipe spring can blocks remained installed after maintenance and failed to perform radiation surveys IAW RP-AA-1008 Revision 10, Section 4.1.11 and 4.2.16.

The team determined that the licensee's failure to promptly identify, evaluate, and correct the adverse conditions was a performance deficiency. The team reviewed the conditions on an individual basis and determined each issue to be of minor significance in accordance with Appendix B of NRC Inspection Manual Chapter IMC 0612. The licensee staff promptly entered each issue into their corrective action program.

Observation: Documentation of the resolution of three issues not consistent with station procedures	71152B
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The team identified an observation regarding the resolution of a condition adverse to quality (CAQ) not being consistent with station procedures. Specifically, IR 04562052 was an issue which met the criteria for a significance level 3 IR but was classified as a significance level 4 in a manner inconsistent with the guidance contained in PI-AA-120, "Issue Identification and Screening," Revision 13. While technically this was compliant with the station procedure and not a performance deficiency, the station chose a process that did not include the other

aspects of the corrective action plan procedure to fully understand the CAQ.

The team identified another observation with two examples. These are associated with IR 04679359, contrary to ER-AA-321, "Administrative Requirements for In-Service Testing," the re-baselined limiting valve stroke time for a safety-related valve (2SWP*AOV78A – STBY SWGR ROOM A UC DISCH VLV) was incorrectly transcribed into a surveillance procedure in which the incorrect value was less conservative than the correct value. Inspectors reviewed testing data and determined that all results were within the required, correct times. IR 04680522 identified an as-found dimension for a component on the RCIC turbine throttle control valve which was out of procedural tolerance, and was corrected through a procedural note to the procedure used for reassembly. The corrective action added a note to the procedure but continued to conflict with the procedural step, which remained unchanged. The team determined that the licensee's failure to promptly identify, evaluate, and correct the adverse conditions was a performance deficiency, and that these two issues are of minor significance in accordance with Appendix B of NRC Inspection Manual Chapter IMC 0612.

The licensee staff promptly entered each issue into their corrective action program.

EXIT MEETINGS AND DEBRIEFS

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

- On June 1, 2023, the inspectors presented the biennial problem identification and resolution inspection results to Peter Orphanos, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71152B	Corrective Action Documents		04562052, 04463751, 04484555, 04493681, 04494391, 04320051, 04324563, 04465481, 04521910, 04334387, 04539945, 04543332, 04508799, 04463368, 04332662, 04299129, 04481795, 04543720, 04510554, 04501866, 04485330, 04384336, 04441978, 04456190, 04488112, 04482957, 04470992, 04480508, 04480763, 04482853, 04484038, 04484816, 04484860, 04485106, 04456105, 04519096, 04483842, 04489154, 04400345, 04548832, 04534862, 04533977, 04533573, 04534336, 04526230, 04518480, 04549997, 04509491, 04474243, 04503675, 04237089, 04326454, 04524717, 04494878, 04530395, 04346387, 04483490, 04500884, 04326668, 04510567, 04476705, 04448532, 04554348, 04500886, 04464348, 04441831, 04563024, 04471332, 04505877, 04544400, 04563017, 04531279, 04413031, 04276479, 04530253, 04548550, 04501298, 04538051, 04500012, 04468691, 04482641, 04508311, 04427161, 04437913, 04483754, 04555973, 04422454, 04532196, 04555669, 04414460, 04218111, 04561512, 04540874, 04517709, 04536591, 04514247, 04534799, 04493111, 04532128, 04564239, 04549902, 04532821, 04552235, 04520321, 04487579, 04546331, 04427409, 04530395, 04488337, 04534597, 04483754, 04561951, 04560948, 04550724, 04560336, 04551544, 04529044, 04493857, 04399700, 04508407, 04470214, 04472515, 04478323, 04462496, 04413071, 03987426, 04095221, 04140931, 04232357, 04299670, 04324166, 04385110, 04412136, 04430969, 04435291, 04440054, 04447040, 04453931, 04455737, 04455744, 04455869, 04456557, 04456586, 04458280, 04460217, 04460233, 04461853, 04464680, 04465878, 04466435, 04466998, 04467406, 04468399, 04470356, 04470910, 04471004, 04471325, 04471330, 04472338, 04473935,	

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			04477259, 04481649, 04482027, 04482954, 04484571, 04484720, 04487248, 04489924, 04495869, 04497228, 04497761, 04501288, 04507067, 04511428, 04513302, 04514983, 04516965, 04518000, 04518609, 04521423, 04524845, 04525848, 04527340, 04530264, 04532821, 04532840, 04536365, 04536675, 04537671, 04541805, 04542233, 04542446, 04542902, 04543298, 04543302, 04543305, 04543310, 04546544, 04548163, 04550836, 04552590, 04553432, 04553656, 04553753, 04554478, 04561632, 04562703, 04562942, 04564230, 04564427, 04564846, 04564858, 04665983, 04668186, 04669684, 04670368, 04672307, 04675818, 04679737, 04453878, 04454226, 04454369, 04454603, 04455041, 04455236, 04455256, 04455545, 04455764, 04456499, 04458014, 04458280, 04459090, 04460458, 04460442, 04460449, 04461466, 04462074, 04463456, 04463572, 04463500, 04464810, 04464973, 04465012, 04466093, 04466240, 04467177, 04467308, 04467431, 04467992, 04468253, 04468435, 04471220, 04471326, 04471769, 04472654, 04472680, 04472846, 04473525, 04473550, 04474005, 04476936, 04476804, 04477936, 04477936, 04478881, 04478882, 04479221, 04479394, 04479881, 04481055, 04482601, 04486402, 04486947, 04487848, 04491004, 04493096, 04494873, 04494872, 04494875, 04501025, 04501736, 04501866, 04504377, 04508486, 04509312, 04512024, 04512025, 04512018, 04512076, 04512555, 04512835, 04513668, 04514945, 04519955, 04519957, 04519958, 04519960, 04519981, 04519986, 04520012, 04520021, 04522167, 04544132, 04544382, 04552989, 04554456	
71152B	Corrective Action Documents	04390079-90, 04390079-92, 04456586-23, 04458203-10,	Evaluations	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		04461248, 04469156-10-2, 04481795, 04486633, 04520704, 04525008, 04547699-07, 04479221, 04490223, 04493518		
71152B	Corrective Action Documents Resulting from Inspection		2023-04676765, 2023-04677144, 2023-04676986, 2023-04676978, 2023-04677157, 2023-04677165, 2023-04677190, 2023-04677192, 2023-04677410, 2023-04677389, 2023-04677364, 2023-04677330, 2023-04677411, 20203-04677516, 2023-04677441, 2023-04677438, 2023-04677637, 2023-04677650, 2023-04679359, 2023-04679834, 2023-04679905, 2023-04680221, 2023-04680387, 2023-04680561, 2023-04680522, 2023-04680597	
71152B	Miscellaneous	1T22 and 3T22	Nuclear Safety Culture meeting report	Dated 6/6/2022 and 1/3/2023
71152B	Miscellaneous	NOSA-NMP-21-06	Radiation Protection Audit Report	Dated 11/4/2021
71152B	Miscellaneous	NOSA-NMP-22-04	Operations Functional Area Audit Report	Dated 9/1/2022
71152B	Miscellaneous	NOSA-NMP-23-01	Security Programs Audit Report	Dated 2/3/2023
71152B	Procedures	CC-AA-101	Engineering Change Requests (ER)	Revision 7
71152B	Procedures	ER-AA-321	Administrative Requirements for Inservice Testing	Revision 14
71152B	Procedures	N1-EPM-SB-272	125VDC Station Battery Capacity Discharge Test,	Revision 01000
71152B	Procedures	N1-ESP-SB-275	125VDC Battery Cell Surveillance	Revision 01500

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71152B	Procedures	N1-ESP-SB-276	125VDC Pilot Cell Surveillance	Revision 01700
71152B	Procedures	N2-ESP-RPS-R748	RPS Vital Bus Power Monitoring Instrument Channel Calibration	Revision 01000.00
71152B	Procedures	N2-OSP-RPS-R301	RPS Logic System Functional Test	Revision 00700.00
71152B	Procedures	OP-AA-108-105	Equipment Deficiency Identification and Documentation	Revision 12
71152B	Procedures	PI-AA-120	Issue Identification and Screening Process	Revision 13
71152B	Procedures	PI-AA-125	Corrective Action Program	Revision 8
71152B	Procedures	RP-AA-1008	Unescorted access to and conduct in Radiologically controlled areas	Revision 10
71152B	Work Orders		C93457663, C93457994, C93671835, C93671898, C93744526, C93457891, C93458867, C93671860, C93671987, C93760799, C93634561, C93660956, C93661021, C93660975, C93681774, C93726577, C93846304, C93723583, C93458031, C93672150, C93760814, C93458048, C93458042, C93459049, C93458215, C93672100, C93809190, C93671976, C93672163, C93809189, C93671961, C93671414, C93671413, C93671963, C93718342, C93713033, C93760893, C93772377, C93729325, C93770833, C93828583, C93821498, C93828669, C93823957, C93723531, C93708750, C93753904, C93713671, C93814736, C93712257, C93902871, C93893496, C93895915, C93745913, C93842660, C93898100, C93903401, C93897511, C93828505, C93792575, C93766808, C93843686, C93777231, C93777286, C93793480, C93825594	