

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

December 18, 2024

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

SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2; BYRON STATION, UNITS, 1 AND 2;

CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2; CLINTON POWER STATION, UNIT 1; JAMES A. FITZPATRICK NUCLEAR POWER

PLAN; LASALLE COUNTY STATION, UNITS 1 AND 2; LIMERICK

GENERATING STATION, UNITS 1 AND 2; NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2; PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3; AND R.E. GINNA NUCLEAR POWER PLANT – ISSUANCE OF AMENDMENTS TO ADOPT TECHNICAL SPECIFICATIONS TASK FORCE

AMENDMENTS TO ADOPT TECHNICAL SPECIFICATIONS TAS

TRAVELER TSTF-591 (EPID L-2024-LLA-0046)

Dear David Rhoades:

The U.S. Nuclear Regulatory Commission (NRC or Commission) has issued the enclosed amendments (listed below) in response to the Constellation Energy Generation, LLC (CEG) application dated April 12, 2024 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML24103A204), as supplemented by letters dated August 9, 2024, and November 26, 2024 (ML24222A677 and ML24331A279, respectfully):

- 1. Amendment No. 236 to Renewed Facility Operating License No. NPF-72 and Amendment No. 236 to Renewed Facility Operating License No. NPF-77 for Braidwood Station, Units 1 and 2, respectively;
- 2. Amendment No. 235 to Renewed Facility Operating License No. NPF-37 and Amendment No. 235 to Renewed Facility Operating License No. NPF-66 for Byron Station, Units 1 and 2, respectively;
- 3. Amendment No.351 to Renewed Facility Operating License No. DPR-53 and Amendment No. 328 to Renewed Facility Operating License No. DPR-69 for Calvert Cliffs Nuclear Power Plant, Units 1 and 2, respectively;
- 4. Amendment No. 255 to Facility Operating License No. NPF-62 for Clinton Power Station, Unit No. 1;
- 5. Amendment No. 359 to Renewed Facility Operating License No. DPR-59 for James A. FitzPatrick Nuclear Power Plant;
- 6. Amendment No. 264 to Renewed Facility Operating License No. NPF-11 and Amendment No. 249 to Renewed Facility Operating License No. NPF-18 for LaSalle County Station, Units 1 and 2, respectively;
- 7. Amendment No. 265 to Renewed Facility Operating License No. NPF-39 and Amendment No. 227 to Renewed Facility Operating License No. NPF-85 Limerick Generating Station, Units 1 and 2, respectively;

- 8. Amendment No. 254 to Renewed Facility Operating License No. DPR-63 and Amendment No. 198 to Renewed Facility Operating License No. NPF-69 Nine Mile Point Nuclear Station, Units 1 and 2, respectively;
- 9. Amendment No. 345 to Subsequent Renewed Facility Operating License No. DPR-44 and Amendment No. 348 to Subsequent Renewed Facility Operating License No. DPR-56 for Peach Bottom Atomic Power Station, Units 2 and 3, respectively; and
- 10. Amendment No. 157 to Renewed Facility Operating License No. DPR-18 for R.E. Ginna Nuclear Power Plant.

The amendments revise the technical specifications (TSs) for each facility in accordance with Technical Specifications Task Force (TSTF) Traveler TSTF-591, Revision 0, "Revise Risk-Informed Completion Time (RICT) Program." A new report is added to inform the NRC of newly developed methods used to calculate a RICT. Additionally, the amendments remove certain facility's Facility Operating License condition sections associated with the implementation of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.69 (10 CFR 50.69), "Risk-informed categorization and treatment of structures, systems and components for nuclear power reactors," and RICT programs.

The NRC staff also notes that by letter dated July 26, 2023 (ML23188A129), the NRC issued Amendment Nos. 233 and 233 for Braidwood Units 1 and 2, respectively. During the issuances of these amendments TS page 5.5-25 should have been removed as part of the repagination of several of the pages affecting TS 5.6, "Reporting Requirements." TS page 5.5-25 is being removed with the issuance of Amendment Nos. 236 and 236 for Braidwood Units 1 and 2, respectively, to correct this editorial error. We apologize for any inconvenience this may have caused.

D. Rhoades - 3 -

A copy of the NRC staff's Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's monthly *Federal Register* notice.

Sincerely,

/RA/

Scott P. Wall, Senior Project Manager Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket Nos.: STN 50-456, STN 50-457, STN 50-454, STN 50-455, 50-317 50-318, 50-461, 50-333, 50-373 50-374, 50-352, 50-353, 50-220 50-410, 50-277, 50-278, and 50-244

Enclosures:

- 1. Amendment No. 236 to NPF-72
- 2. Amendment No. 236 to NPF-77
- 3. Amendment No. 235 to NPF-37
- 4. Amendment No. 235 to NPF-66
- 5. Amendment No. 351 to DPR-53
- 6. Amendment No. 328 to DPR-69
- 7. Amendment No. 255 to NPF-62
- 8. Amendment No. 359 to DPR-59
- 9. Amendment No. 264 to NPF-11
- 10. Amendment No. 249 to NPF-18

cc: Listserv

- 11. Amendment No. 265 to NPF-39
- 12. Amendment No. 227 to NPF-85
- 13. Amendment No. 254 to DPR-63
- 14. Amendment No. 198 to NPF-69
- 15. Amendment No. 345 to DPR-44
- 16. Amendment No. 348 to DPR-56
- 17. Amendment No. 157 to DPR-18
- 18. Safety Evaluation
- 19. Notices and Environmental Findings



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. STN 50-456

BRAIDWOOD STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 236 Renewed License No. NPF-72

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the renewed license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-72 is hereby amended to read as follows:

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A as revised through Amendment No. 236 and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License and Technical
Specifications

Date of Issuance: December 18, 2024



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. STN 50-457

BRAIDWOOD STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 236 Renewed License No. NPF-77

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the renewed license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-77 is hereby amended to read as follows:

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A as revised through Amendment No. 236 and the Environmental Protection Plan contained in Appendix B, both of which are attached to Renewed License No. NPF-72, dated January 27, 2016, are hereby incorporated into the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License and
Technical Specifications

Date of Issuance: December 18, 2024

ATTACHMENT TO LICENSE AMENDMENT NOS. 236 AND 236

RENEWED FACILITY OPERATING LICENSE NOS. NPF-72 AND NPF-77

BRAIDWOOD STATION, UNITS 1 AND 2

DOCKET NOS. STN 50-456 AND STN 50-457

Replace the following pages of the Renewed Facility Operating Licenses and Appendix A, Technical Specifications, with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Renewed Facility Operating Licenses

<u>REMOVE</u>	<u>INSERT</u>
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License NPF-72	License NPF-72

Page 3 Page 6 Page 6

<u>License NPF-77</u> <u>License NPF-77</u>

Page 3 Page 6 Page 6

Technical Specifications

<u>REMOVE</u>	<u>INSERT</u>
5.5 – 24	5.5 – 24
5.5 – 25	
5.6 – 7	5.6 – 7
	5.6 – 8

- (2) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (3) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) <u>Maximum Power Level</u>

The licensee is authorized to operate the facility at reactor core power levels not in excess of 3645 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A as revised through Amendment No. 236 and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

- (2) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (3) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. The renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) <u>Maximum Power Level</u>

The licensee is authorized to operate the facility at reactor core power levels not in excess of 3645 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.

(2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. 236 and the Environmental Protection Plan contained in Appendix B, both of which are attached to Renewed License No. NPF-72, dated January 27, 2016, are hereby incorporated into the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

- (c) The flux thimble tube corrective actions, inspections, and replacements identified in the SER, Commitment No. 24, for Braidwood Units 1 and 2, shall be implemented in accordance with the schedule in the Commitment. Periodic eddy current testing/inspections of all flux thimble tubes shall be performed at least every two refueling outages, and the data shall be trended and retained in auditable form. A flux thimble tube shall not remain in service for more than two (2) operating fuel cycles without successful completion of eddy current testing for that thimble tube.
- (14) Adoption of 10 CFR 50.69, "Risk-informed categorization and treatment of structures, systems, and components for nuclear power plants"

Constellation Energy Generation, LLC is approved to implement 10 CFR 50.69 using the processes for categorization of Risk-Informed Safety Class (RISC)-1, RISC-2, RISC-3, and RISC-4 structures, systems, and components (SSCs) using:

Probabilistic Risk Assessment (PRA) models to evaluate risk associated with internal events, including internal flooding, and internal fire; the shutdown safety assessment process to assess shutdown risk; the Arkansas Nuclear One, Unit 2 (ANO-2) passive categorization method to assess passive component risk for Class 2, Class 3, and non-Code class SSCs and their associated supports; and the results of non-PRA evaluations that are based on the IPEEE Screening Assessment for External Hazards, i.e., seismic margin analysis (SMA) to evaluate seismic risk, and a screening of other external hazards updated using the external hazard screening significance process identified in ASME/ANS PRA Standard RA-Sa-2009; as specified in the license amendment No. 198, dated October 22, 2018.

Prior NRC approval, under 10 CFR 50.90, is required for a change to the categorization process specified above (e.g., change from a seismic margins approach to a seismic probabilistic risk assessment approach).

- (c) The flux thimble tube corrective actions, inspections, and replacements identified in the SER, Commitment No. 24, for Braidwood Units 1 and 2, shall be implemented in accordance with the schedule in the Commitment. Periodic eddy current testing/inspections of all flux thimble tubes shall be performed at least every two refueling outages {RFO], and the data shall be trended and retained in auditable form. A flux thimble tube shall not remain in service for more than two (2) operating fuel cycles without successful completion of eddy current testing for that thimble tube.
- (d) Deleted
- (13) Adoption of 10 CFR 50.69, "Risk-informed categorization and treatment of structures, systems, and components for nuclear power plants"

Constellation Energy Generation, LLC is approved to implement 10 CFR 50.69 using the processes for categorization of Risk-Informed Safety Class (RISC)-1, RISC-2, RISC-3, and RISC-4 structures, systems, and components (SSCs) using:

Probabilistic Risk Assessment (PRA) models to evaluate risk associated with internal events, including internal flooding, and internal fire; the shutdown safety assessment process to assess shutdown risk; the Arkansas Nuclear One, Unit 2 (ANO-2) passive categorization method to assess passive component risk for Class 2, Class 3, and non-Code class SSCs and their associated supports; and the results of non-PRA evaluations that are based on the IPEEE Screening Assessment for External Hazards, i.e., seismic margin analysis (SMA) to evaluate seismic risk, and a screening of other external hazards updated using the external hazard screening significance process identified in ASME/ANS PRA Standard RA-Sa-2009; as specified in the license amendment No. 198, dated October 22, 2018.

5.5.20 <u>Risk Informed Completion Time Program</u> (continued)

- d. For emergent conditions, if the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the Completion Time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
 - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation; or
 - 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, and seismic hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.
- f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."
- g. A report shall be submitted in accordance with Specification 5.6.10 before a newly developed method is used to calculate a RICT.

5.6.9 <u>Steam Generator (SG) Tube Inspection Report (continued)</u>

- d. An analysis summary of the tube integrity conditions predicted to exist at the next scheduled inspection (the forward-looking tube integrity assessment) relative to the applicable performance criteria, including the analysis methodology, inputs, and results;
- e. The number and percentage of tubes plugged to date, and the effective plugging percentage in each SG;
- f. The results of any SG secondary side inspections;
- g. For Unit 2, the operational primary to secondary leakage rate observed (greater than three gallons per day) in each steam generator (if it is not practical to assign the leakage to an individual steam generator, the entire primary to secondary leakage should be conservatively assumed to be from one steam generator) during the cycle preceding the inspection which is the subject of the report;
- h. For Unit 2, the calculated accident induced leakage rate from the portion of the tubes below 14.01 inches from the top of the tubesheet for the most limiting accident in the most limiting SG. In addition, if the calculated accident induced leakage rate from the most limiting accident is less than 3.11 times the maximum operational primary to secondary leakage rate, the report should describe how it was determined; and
- i. For Unit 2, the results of monitoring for tube axial displacement (slippage). If slippage is discovered, the implications of the discovery and corrective action shall be provided. .

5.6.10 <u>Risk Informed Completion Time (RICT) Program Upgrade Report</u>

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

- a. The PRA models upgraded to include newly developed methods;
- b. A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review:"

5.6 Reporting Requirements

5.6.10 Risk Informed Completion Time (RICT) Program Upgrade Report (continued)

- c. Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementations.



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. STN 50-454

BYRON STATION, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 235 Renewed License No. NPF-37

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the renewed license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-37 is hereby amended to read as follows:

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A as revised through Amendment No. 235 and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment: Changes to the Renewed Facility Operating License and Technical Specifications

Date of Issuance: December 18, 2024



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. STN 50-455

BYRON STATION, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 235 Renewed License No. NPF-66

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-66 is hereby amended to read as follows:

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A (NUREG-1113), as revised through Amendment No. 235, and the Environmental Protection Plan contained in Appendix B, both of which were attached to Renewed License No. NPF-37, dated November 19, 2015, are hereby incorporated into this renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License and Technical
Specifications

Date of Issuance: December 18, 2024

ATTACHMENT TO LICENSE AMENDMENT NOS. 235 AND 235

RENEWED FACILITY OPERATING LICENSE NOS. NPF-37 AND NPF-66

BYRON STATION, UNIT NOS. 1 AND 2

DOCKET NOS. STN 50-454 AND STN 50-455

Replace the following pages of the Renewed Facility Operating Licenses and Appendix A, Technical Specifications, with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Renewed Facility Operating Licenses

<u>REMOVE</u>	<u>INSERT</u>
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<u>License NPF-37</u> <u>License NPF-37</u>

Page 3 Page 7 Page 7

<u>License NPF-66</u> <u>License NPF-66</u>

Page 3 Page 6 Page 6

Technical Specifications

<u>REMOVE</u>	<u>INSERT</u>
5.5 – 24	5.5 – 24
5.6 – 7	5.6 – 7
	5.6 - 8

- (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Updated Final Safety Analysis Report, as supplemented and amended;
- (3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. The renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at reactor core power levels not in excess of 3645 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A as revised through Amendment No. 235 and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

- (3) Deleted.
- (4) Deleted.

- (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Updated Final Safety Analysis Report, as supplemented and amended;
- (3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. The renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at reactor core power levels not in excess of 3645 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A (NUREG-1113), as revised through Amendment No. 235, and the Environmental Protection Plan contained in Appendix B, both of which were attached to Renewed License No. NPF-37, dated November 19, 2015, are hereby incorporated into this renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Deleted.

Class 2, Class 3, and non-Code class SSCs and their associated supports; and the results of non-PRA evaluations that are based on the IPEEE Screening Assessment for External Hazards, i.e., seismic margin analysis (SMA) to evaluate seismic risk, and a screening of other external hazards updated using the external hazard screening significance process identified in ASME/ANS PRA Standard RA-Sa-2009; as specified in the license amendment No. 204, dated October 22, 2018.

Prior NRC approval, under 10 CFR 50.90, is required for a change to the categorization process specified above (e.g., change from a seismic margins approach to a seismic probabilistic risk assessment approach).

- D. The facility requires no exemptions from the requirements of 10 CFR Part 50.
- E. Constellation Energy Generation, LLC shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualifications, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822), and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans¹, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Byron Nuclear Power Station Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan, Revision 3," submitted by letter dated May 17, 2006.

Constellation Energy Generation, LLC shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The CSP was approved by License Amendment No. 175 and modified by License Amendment No. 191.

F. Deleted

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¹ The Training and Qualification Plan and Safeguards Contingency Plan are Appendices to the Security Plan

Probabilistic Risk Assessment (PRA) models to evaluate risk associated with internal events, including internal flooding, and internal fire; the shutdown safety assessment process to assess shutdown risk; the Arkansas Nuclear One, Unit 2 (ANO-2) passive categorization method to assess passive component risk for Class 2, Class 3, and non-Code class SSCs and their associated supports; and the results of non-PRA evaluations that are based on the IPEEE Screening Assessment for External Hazards, i.e., seismic margin analysis (SMA) to evaluate seismic risk, and a screening of other external hazards updated using the external hazard screening significance process identified in ASME/ANS PRA Standard RA-Sa-2009; as specified in the license amendment No. 204, dated October 22, 2018.

Prior NRC approval, under 10 CFR 50.90, is required for a change to the categorization process specified above (e.g., change from a seismic margins approach to a seismic probabilistic risk assessment approach).

D. The facility requires no exemptions from the requirements of 10 CFR Part 50.

An exemption was previously granted pursuant to 10 CFR 70.24. The exemption was granted with NRC materials license No. SNM-1916, issued March 4, 1985, and relieved the licensee from the requirement of having a criticality alarm system. Therefore, the licensee is exempted from the criticality alarm system provision of 10 CFR 70.24 so far as this section applies to the storage of fuel assemblies held under this license.

E. The licensee shall implement and maintain in effect all provisions of the approved fire protection program as described in the licensee's Fire Protection Report and the licensee's letters dated September 23, 1986, October 23, 1986, November 3, 1986, December 12 and 15, 1986, and January 21, 1987, and as approved in the SER dated February 1982 through Supplement No. 8, subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

5.5.20 <u>Risk Informed Completion Time Program</u> (continued)

- d. For emergent conditions, if the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the Completion Time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
 - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation; or
 - 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, seismic hazards using penalty factors, and configuration-specific tornado missile hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.
- f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."
- g. A report shall be submitted in accordance with Specification 5.6.10 before a newly developed method is used to calculate a RICT.

5.6.9 <u>Steam Generator (SG) Tube Inspection Report</u> (continued)

- d. An analysis summary of the tube integrity conditions predicted to exist at the next scheduled inspection (the forward-looking tube integrity assessment) relative to the applicable performance criteria, including the analysis methodology, inputs, and results;
- e. The number and percentage of tubes plugged to date, and the effective plugging percentage in each SG;
- f. The results of any SG secondary side inspections;
- g. For Unit 2, the operational primary to secondary leakage rate observed (greater than three gallons per day) in each steam generator (if it is not practical to assign the leakage to an individual steam generator, the entire primary to secondary leakage should be conservatively assumed to be from one steam generator) during the cycle preceding the inspection which is the subject of the report;
- h. For Unit 2, the calculated accident induced leakage rate from the portion of the tubes below 14.01 inches from the top of the tubesheet for the most limiting accident in the most limiting SG. In addition, if the calculated accident induced leakage rate from the most limiting accident is less than 3.11 times the maximum operational primary to secondary leakage rate, the report should describe how it was determined; and
- i. For Unit 2, the results of monitoring for tube axial displacement (slippage). If slippage is discovered, the implications of the discovery and corrective action shall be provided.

5.6.10 <u>Risk Informed Completion Time (RICT) Program Upgrade Report</u>

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

- a. The PRA models upgraded to include newly developed methods;
- b. A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review;"

5.6 Reporting Requirements

5.6.10 Risk Informed Completion Time (RICT) Program Upgrade Report (continued)

- c. Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementations.



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

CALVERT CLIFFS NUCLEAR POWER PLANT, LLC

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 351 License No. DPR-53

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-53 is hereby amended to read as follows:

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 351, are hereby incorporated into this license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical Specifications and Renewed Facility Operating
License

Date of Issuance: December 18, 2024



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

CALVERT CLIFFS NUCLEAR POWER PLANT, LLC CONSTELLATION ENERGY GENERATION, LLC DOCKET NO. 50-318

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 328 Renewed License No. DPR-69

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-69 is hereby amended to read as follows:

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 328, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical Specifications and Renewed Facility Operating License

Date of Issuance: December 18, 2024

ATTACHMENT TO LICENSE AMENDMENT NOS. 351 AND 328

RENEWED FACILITY OPERATING LICENSE NOS. DPR-53 AND DPR-69

CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2

DOCKET NOS. 50-317 AND 50-318

Replace the following pages of the Facility Operating License and Appendix A, Technical Specifications (TSs), with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	<u>Insert</u>
<u>License DPR-53</u>	<u>License DPR-53</u>
Page 3	Page 3
<u>License DPR-69</u>	<u>License DPR-69</u>
Page 3	Page 3
<u>TSs</u> 5.5 – 20 5.6 – 7	<u>TSs</u> 5.5 – 20 5.6 – 7 5.6 – 8

- (4) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, in amounts as required, any byproduct, source, and special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license is deemed to contain and is subject to the conditions set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act, and the rules, regulations, and orders of the Commission, now or hereafter applicable; and is subject to the additional conditions specified and incorporated below:

(1) <u>Maximum Power Level</u>

Constellation Energy Generation, LLC is authorized to operate the facility at steady-state reactor core power levels not in excess of 2737 megawatts-thermal in accordance with the conditions specified herein.

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 351, are hereby incorporated into this license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications.

(a) For Surveillance Requirements (SRs) that are new, in Amendment 227 to Facility Operating License No. DPR-53, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 227. For SRs that existed prior to Amendment 227, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 227.

(3) Additional Conditions

The Additional Conditions contained in Appendix C as revised through Amendment No. 345 are hereby incorporated into this license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Additional Conditions.

- (4) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, in amounts as required, any byproduct, source, and special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license is deemed to contain and is subject to the conditions set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act, and the rules, regulations, and orders of the Commission, now or hereafter applicable; and is subject to the additional conditions specified and incorporated below:

(1) <u>Maximum Power Level</u>

Constellation Energy Generation, LLC is authorized to operate the facility at steady-state reactor core power levels not in excess of 2737 megawatts-thermal in accordance with the conditions specified herein.

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 328, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications.

(a) For Surveillance Requirements (SRs) that are new, in Amendment 201 to Facility Operating License No. DPR-69, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 201. For SRs that existed prior to Amendment 201, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 201.

(3) Less Than Four Pump Operation

The licensee shall not operate the reactor at power levels in excess of five (5) percent of rated thermal power with less than four (4) reactor coolant pumps in operation. This condition shall remain in effect until the licensee has submitted safety analyses for less than four pump operation, and approval for such operation has been granted by the Commission by amendment of this license.

5.5 Programs and Manuals

- 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, seismic hazards using penalty factors, and tornado missile hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.
- f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."
- g. A report shall be submitted in accordance with Specification 5.6.10 before a newly developed method is used to calculate a RICT.

5.5.19 <u>Surveillance Frequency Control Program</u>

This program provides controls for Surveillance Frequencies. The program shall ensure that Surveillance Requirements specified in the Technical Specifications are performed at intervals sufficient to assure the associated Limiting Conditions for Operation are met.

- a. The Surveillance Frequency Control Program shall contain a list of Frequencies of those Surveillance Requirements for which the Frequency is controlled by the program.
- b. Changes to the Frequencies listed in the Surveillance Frequency Control Program shall be made in accordance with NEI 04-10, "Risk-Informed Technical Specifications Initiative 5b, Risk Informed Method for Control of Surveillance Frequencies," Revision 1.
- c. The provisions of Surveillance Requirements 3.0.2 and 3.0.3 are applicable to the Frequencies established in the Surveillance Frequency Control Program.

CALVERT CLIFFS - UNIT 1
CALVERT CLIFFS - UNIT 2

5.5-20

Amendment No. 351 Amendment No. 328

- a. The scope of inspections performed on each SG;
- b. The nondestructive examination techniques utilized for tubes with increased degradation susceptibility;
- c. For each degradation mechanism found:
 - 1. The nondestructive examination techniques utilized;
 - 2. The location, orientation (if linear), measured size (if available), and voltage response for each indication. For tube wear at support structures less than 20 percent through-wall, only the total number of indications needs to be reported;
 - 3. A description of the condition monitoring assessment and results, including the margin to the tube integrity performance criteria and comparison with the margin predicted to exist at the inspection by the previous forward-looking tube integrity assessment; and
 - 4. The number of tubes plugged during the inspection outage.
- d. An analysis summary of the tube integrity conditions predicted to exist at the next scheduled inspection (the forward-looking tube integrity assessment) relative to the applicable performance criteria, including the analysis methodology, inputs, and results;
- e. The number and percentage of tubes plugged to date, and the effective plugging percentage in each SG; and
- f. The results of any SG secondary side inspections.

5.6.10 Risk Informed Completion Time (RICT) Program Upgrade Report

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

a. The PRA models upgraded to include newly developed methods;

5.6 Reporting Requirements

- b. A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review;"
- c. Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementations.



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-461

CLINTON POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 255 License No. NPF-62

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

- 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-62 is hereby amended to read as follows:
 - (2) <u>Technical Specifications and Environmental Protection Plan</u>

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 255, are hereby incorporated into this license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications and Facility
Operating License

Date of Issuance: December 18, 2024

ATTACHMENT TO LICENSE AMENDMENT NO. 255

FACILITY OPERATING LICENSE NO. NPF-62

CLINTON POWER STATION, UNIT NO. 1

DOCKET NO. 50-461

Replace the following pages of the Facility Operating License and Appendix A, Technical Specifications (TSs), with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	<u>Insert</u>
<u>License NPF-62</u> Page 3	<u>License NPF-62</u> Page 3
<u>TSs</u> 5.0 – 17 5.0 – 18 5.0 – 19 5.0 – 20 5.0 – 21	TSs 5.0 - 17 5.0 - 18 5.0 - 19 5.0 - 20 5.0 - 21 5.0 - 22
	5.0 - 23

- (4) Constellation Energy Generation, LLC, pursuant to the Act and to 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (5) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components;
- (6) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility. Mechanical disassembly of the GE14i isotope test assemblies containing Cobalt-60 is not considered separation; and
- (7) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, to intentionally produce, possess, receive, transfer, and use Cobalt-60.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

Constellation Energy Generation, LLC is authorized to operate the facility at reactor core power levels not in excess of 3473 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.

(2) <u>Technical Specifications and Environmental Protection Plan</u>

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 255, are hereby incorporated into this license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

5.5.17 Risk Informed Completion Time Program

This program provides controls to calculate a Risk Informed Completion Time (RICT) and must be implemented in accordance with NEI 06-09-A, Revision 0, "Risk-Managed Technical Specifications (RMTS) Guidelines." The program shall include the following:

- a. The RICT may not exceed 30 days;
- b. A RICT may only be utilized in MODE 1 and 2;
- c. When a RICT is being used, any change to the plant configuration, as defined in NEI 06-09-A, Appendix A, must be considered for the effect on the RICT.
 - 1. For planned changes, the revised RICT must be determined prior to implementation of the change in configuration.
 - For emergent conditions, the revised RICT must be determined within the time limits of the Required Action Completion Time (i.e., not the RICT) or 12 hours after the plant configuration change, whichever is less.
 - 3. Revising the RICT is not required if the plant configuration change would lower plant risk and would result in a longer RICT.
- d. For emergent conditions, if the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the Completion Time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
 - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation; or
 - 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, and seismic hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.

(continued)

5.5 Programs and Manuals

5.5.17 Risk Informed Completion Time Program (continued)

- f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."
- g. A report shall be submitted in accordance with Specification 5.6.6 before a newly developed method is used to calculate a RICT.

5.0 ADMINISTRATIVE CONTROLS

5.6 Reporting Requirements

The following reports shall be submitted in accordance with 10 CFR 50.4.

5.6.1 Deleted

5.6.2 Annual Radiological Environmental Operating Report

The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted by May 1 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual (ODCM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

The Annual Radiological Environmental Operating Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODCM, as well as summarized and tabulated results of these analyses and measurements in the format of the table in the Radiological Assessment Branch Technical Position, Revision 1, November 1979. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

5.6.3 Radioactive Effluent Release Report

The Radioactive Effluent Release Report covering the operation of the unit during the previous calendar year shall be submitted by May 1 of each year. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be consistent with the objectives outlined in the ODCM and process control program and in conformance with 10 CFR 50.36a and 10 CFR 50, Appendix I, Section IV.B.1.

5.6.4 Deleted

(continued)

5.6

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
 - 1. LCO 3.2.1, Average Planar Linear Heat Generation Rate (APLHGR),
 - 2. LCO 3.2.2, Minimum Critical Power Ratio (MCPR) and MCPR99.9%,
 - 3. LCO 3.2.3, Linear Heat Generation Rate (LHGR),
 - 4. LCO 3.3.1.1, RPS Instrumentation (SR 3.3.1.1.14),
 - 5. LCO 3.3.1.3, Oscillation Power Range Monitor (OPRM) Instrumentation, and
 - 6. LCO 3.7.6, Main Turbine Bypass System, (cycle dependent thermal power limits for an inoperable Main Turbine Bypass System).
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in
 - (1) General Electric Standard Application for Reactor Fuel (GESTAR), NEDE-24011-P-A, or
 - (2) NEDO-32465, "BWR Owners' Group Reactor Stability Detect and Suppress Solutions Licensing Basis Methodology and Reload Applications."
- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

(continued)

5.6 Reporting Requirements (continued)

5.6.6 Risk Informed Completion Time (RICT) Program Upgrade Report

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

- a. The PRA models upgraded to include newly developed methods;
- b. A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review;"
- c. Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementations.

- 5.0 ADMINISTRATIVE CONTROLS
- 5.7 High Radiation Area

Pursuant to 10 CFR Part 20, paragraph 20.1601(c), in lieu of the requirements of paragraph 20.1601(a) and 20.1601(b) of 10 CFR Part 20:

- 5.7.1 Access to each high radiation area, as defined in 10 CFR 20, in which an individual could receive a deep dose equivalent > 0.1 rem in one hour (at 30 centimeters from the radiation source or from any surface penetrated by the radiation) shall be controlled as described below to prevent unauthorized entry.
 - a. Each area shall be barricaded and conspicuously posted as a high radiation area. Such barricades may be opened as necessary to permit entry or exit of personnel or equipment.
 - b. Entrance shall be controlled by requiring issuance of a Radiation Work Permit (RWP) or equivalent that includes specification of radiation dose rate in the immediate work area(s) and other appropriate radiation protection equipment and measures.
 - c. Individuals qualified in radiation protection procedures or personnel continuously escorted by such individuals may, for the performance of their assigned duties in high radiation areas, be exempt from the preceding requirements for issuance of an RWP or equivalent provided they are otherwise following plant radiation protection procedures for entry into, exit from, and work in such high radiation areas.
 - d. Each individual or group of individuals permitted to enter such areas shall possess, or be accompanied by, one or more of the following:
 - A radiation monitoring device that continuously indicates the radiation dose rate in the area.
 - 2. A radiation monitoring device that continuously integrates the radiation dose rate in the area and alarms when a preset setpoint is reached. Entry into high radiation areas with this monitoring device may be made after the dose rate in the area has been determined and personnel have been made knowledgeable of it.
 - 3. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area.

(continued)

5.7.1 (continued)

- 4. An individual qualified in radiation protection procedures equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive radiation protection control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by radiation protection supervision.
- 5.7.2 In addition to the requirements of Specification 5.7.1, high radiation areas in which an individual could receive a deep dose equivalent > 1.0 rem in one hour (at 30 centimeters from the radiation source or from any surface penetrated by the radiation), but less than 500 rads/hour (at 1 meter from the radiation source or from any surface penetrated by the radiation) shall be provided with a locked or continuously guarded door, or gate, or equivalent to prevent unauthorized entry.
 - a. The keys to such locked doors or gates, or equivalent, shall be administratively controlled in accordance with a program approved by the radiation protection manager.
 - b. Doors and gates, or equivalent, shall remain locked except during periods of access by personnel under an approved RWP, or equivalent, to ensure individuals are informed of the dose rate in the immediate work areas prior to entry.
 - c. Individual high radiation areas in which an individual could receive a deep dose equivalent > 1.0 rem in one hour (at 30 centimeters from the radiation source or from any surface penetrated by the radiation), accessible to personnel, that are located within larger areas where no enclosure exists to enable locking, or that are not continuously guarded, and where no lockable enclosure can be reasonably constructed around the individual area require both of the following access controls:
 - 1. Each area shall be barricaded and conspicuously posted.
 - 2. A flashing light shall be activated as a warning device.



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

CONSTELLATION FITZPATRICK, LLC

AND

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-333

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 359 Renewed Facility Operating License No. DPR-59

- 1. The U.S. Nuclear Regulatory Commission has found that:
 - A. The application for amendment by Constellation Energy Generation Company, LLC, dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-59 is hereby amended to read as follows:

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 359, are hereby incorporated in the renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License and Technical
Specifications

Date of Issuance: December 18, 2024

ATTACHMENT TO LICENSE AMENDMENT NO. 359

RENEWED FACILITY OPERATING LICENSE NO. DPR-59

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

DOCKET NO. 50-333

Replace the following pages of the Renewed Facility Operating License and Appendix A, Technical Specifications (TSs), with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	<u>insert</u>
<u>License DPR-59</u>	<u>License DPR-59</u>
Page 3	Page 3
<u>TSs</u>	<u>TSs</u>
5.5 – 16	5.5 – 16
5.6 – 3	5.6 – 3
5.6 – 4	5.6 – 4

- (3) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, at any time, any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, at any time, any byproduct, source and special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration; or associated with radioactive apparatus, components or tools.
- (5) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) <u>Maximum Power Level</u>

Constellation Energy Generation, LLC is authorized to operate the facility at steady state reactor core power levels not in excess of 2536 megawatts (thermal).

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 359, are hereby incorporated in the renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

5.5.16 Risk Informed Completion Time Program (continued)

- d. For emergent conditions, if the extent of condition evaluation for inoperable structures, systems, or components (SSCs is not complete prior to exceeding the Completion Time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
 - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation; or
 - 2. Risk Management Actions (RMSs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, and seismic hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.
- f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."
- g. A report shall be submitted in accordance with Specification 5.6.8 before a newly developed method is used to calculate a RICT.

JAFNPP 5.5-16 Amendment 359

5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

5.6.6 PAM Report

When a report is required by Condition B or F of LCO 3.3.3.1, "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

5.6.7 Reactor Coolant System (RCS PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR)

- a. RCS pressure and temperature limits for heatup, cooldown, low temperature operation, criticality, and hydrostatic testing as well as heatup and cooldown rates shall be established and documented in the PTLR for the following:
 - i) Limiting Conditions for Operation Section 3.4.9 "RCS Pressure and Temperature (P/T) Limits"
 - ii) Surveillance Requirements Section 3.4.9 "RCS Pressure and Temperature (P/T) Limits"
- b. The analytical methods used to determine the RCS pressure and temperature limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:
 - i) SIR-05-044-A, "Pressure-Temperature Limits Report Methodology for Boiling Water Reactors"
 - ii) SIA Calculation 0800846.301, "2" Instrument Nozzle Stress Analysis"
- c. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto.

(continued)

5.6 Reporting Requirements (continued)

5.6.8 Risk Informed Completion Time (RICT) Program Upgrade Report

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

- a. The PRA models upgraded to include newly developed methods;
- A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review;"
- Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementations.



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-373

LASALLE COUNTY STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 264 Renewed License No. NPF-11

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC, dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

- 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-11 is hereby amended to read as follows:
 - (2) <u>Technical Specifications and Environmental Protection Plan</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 264, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications and Renewed
Facility Operating License

Date of Issuance: December 18, 2024



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-374

LASALLE COUNTY STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 249 Renewed License No. NPF-18

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC, dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

- 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-18 is hereby amended to read as follows:
 - (2) <u>Technical Specifications and Environmental Protection Plan</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 249, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications and Renewed
Facility Operating License

Date of Issuance: December 18, 2024

ATTACHMENT TO LICENSE AMENDMENT NOS. 264 AND 249

RENEWED FACILITY OPERATING LICENSE NOS. NPF-11 AND NPF-18

LASALLE COUNTY STATION, UNITS 1 AND 2

DOCKET NOS. 50-373 AND 50-374

Replace the following pages of the Renewed Facility Operating Licenses and Appendix A, Technical Specifications (TSs), with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	<u>Insert</u>
License NPF-11 Page 3 Page 10 Page 11	License NPF-11 Page 3 Page 10 Page 11
License NPF-18 Page 3 Page 10 Page 11	License NPF-18 Page 3 Page 10 Page 11
<u>TSs</u> 5.5 – 17 5.6 – 5	<u>TSs</u> 5.5 – 17 5.6 – 5 5.6 – 6

- (3) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of LaSalle County Station, Units 1 and 2, and such Class B and Class C low-level radioactive waste as may be produced by the operation of Braidwood Station, Units 1 and 2, Byron Station, Units 1 and 2, and Clinton Power Station, Unit 1.
- C. This renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

Am. 198 (1) <u>Maximum Power Level</u> 09/16/10

The licensee is authorized to operate the facility at reactor core power levels not in excess of full power (3546 megawatts thermal).

Am. 264 (2) <u>Technical Specifications and Environmental Protection Plan</u> 12/17/24

The Technical Specifications contained in Appendix A, as revised through Amendment No. 264, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

Am. 194 (3) DELETED 08/28/09

Am. 194 (4) DELETED

08/28/09 Am. 194 (5) DELETED

08/28/09

- (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of LaSalle County Station, Units 1 and 2, and such Class B and Class C low-level radioactive waste as may be produced by the operation of Braidwood Station, Units 1 and 2, Byron Station, Units 1 and 2, and Clinton Power Station, Unit 1.
- C. This renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

Am. 185 09/16/10

(1) <u>Maximum Power Level</u>

The licensee is authorized to operate the facility at reactor core power levels not in excess of full power (3546 megawatts thermal). Items in Attachment 1 shall be completed as specified. Attachment 1 is hereby incorporated into this license.

Am. 249 12/17/24

(2) <u>Technical Specifications and Environmental Protection Plan</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 249, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(47) Adoption of 10 CFR 50.69, "Risk-Informed Categorization and Treatment of Structures, Systems, and Components for Nuclear Power Plants"

Constellation Energy Generation, LLC is approved to implement 10 CFR 50.69 using the processes for categorization of Risk-Informed Safety Class (RISC)-1, RISC-2, RISC-3, and RISC-4 Structures, Systems, and Components (SSCs) using: Probabilistic Risk Assessment (PRA) models to evaluate risk associated with internal events, including internal flooding, and internal fire; the shutdown safety assessment process to assess shutdown risk; the Arkansas Nuclear One, Unit 2 (ANO-2) passive categorization method to assess passive component risk for Class 2 and Class 3 SSCs and their associated supports; the results of the non-PRA evaluations that are based on the IPEEE Screening Assessment for External Hazards updated using the external hazard screening significance process identified in ASME/ANS PRA Standard RA-Sa-2009 for other external hazards except seismic; and the alternative seismic approach as described in the EGC submittal letter dated January 31, 2020, and all its subsequent associated supplements, as specified in License Amendment No. 249 dated May 27, 2021.

Prior NRC approval, under 10 CFR 50.90, is required for a change to the categorization process specified above (e.g., change from a seismic margins approach to a seismic probabilistic risk assessment approach).

(48) Adoption of Risk Informed Completion Times TSTF-505, Revision 2, "Provide Risk-Informed Extended Completion Times -RITSTF Initiative 4b"

Constellation Energy Generation, LLC is approved to implement TSTF-505, Revision 2, modifying the Technical Specification requirements related to Completion Times (CT) for Required Actions to provide the option to calculate a longer, risk-informed CT (RICT). The methodology for using the new Risk-Informed Completion Time Program is described in NEI 06-09-A, "Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines," Revision 0, which was approved by the NRC on May 17, 2007.

Am. 102 03/16/95

- D. The facility requires exemptions from certain requirements of 10 CFR Part 50, 10 CFR Part 70, and 10 CFR Part 73. These include:
 - (a) Exemptions from certain requirements of Appendices G, H and J and 10 CFR Part 73 are described in the Safety Evaluation Report and Supplement No. 1, No. 2, No. 3 to the Safety Evaluation Report.
 - (b) DELETED
 - (c) DELETED
 - (d) DELETED
- Am. 226 11/16/17
- (e) DELETED

- 3. The licensee shall notify the NRC in writing within 30 days after having accomplished item (b)1 above and include the status of those activities that have been or remain to be completed in item (b)2 above.
- (36) Adoption of 10 CFR 50.69, "Risk-Informed Categorization and Treatment of Structures, Systems, and Components for Nuclear Power Plants"

Constellation Energy Generation, LLC is approved to implement 10 CFR 50.69 using the processes for categorization of Risk-Informed Safety Class (RISC)-1, RISC-2, RISC-3, and RISC-4 Structures, Systems, and Components (SSCs) using: Probabilistic Risk Assessment (PRA) models to evaluate risk associated with internal events, including internal flooding, and internal fire; the shutdown safety assessment process to assess shutdown risk; the Arkansas Nuclear One, Unit 2 (ANO-2) passive categorization method to assess passive component risk for Class 2 and Class 3 SSCs and their associated supports; the results of the non-PRA evaluations that are based on the IPEEE Screening Assessment for External Hazards updated using the external hazard screening significance process identified in ASME/ANS PRA Standard RA-Sa-2009 for other external hazards except seismic; and the alternative seismic approach as described in the EGC submittal letter dated January 31. 2020, and all its subsequent associated supplements, as specified in License Amendment No. 235 dated May 27, 2021.

Prior NRC approval, under 10 CFR 50.90, is required for a change to the categorization process specified above (e.g., change from a seismic margins approach to a seismic probabilistic risk assessment approach).

(37) Adoption of Risk Informed Completion Times TSTF-505, Revision 2, "Provide Risk-Informed Extended Completion Times -RITSTF Initiative 4b"

Constellation Energy Generation, LLC is approved to implement TSTF-505, Revision 2, modifying the Technical Specification requirements related to Completion Times (CT) for Required Actions to provide the option to calculate a longer, risk-informed CT (RICT). The methodology for using the new Risk-Informed Completion Time Program is described in NEI 06-09-A, "Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines," Revision 0, which was approved by the NRC on May 17, 2007.

5.5 Programs and Manuals

5.5.17 <u>Risk Informed Completion Time Program (continued)</u>

- 1. Numerically accounting for the increased possibility of CCF in the RICT calculation; or
- 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, and seismic hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.
- f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities.
- g. A report shall be submitted in accordance with Specification 5.6.8 before a newly developed method is used to calculate a RICT.

5.6 Reporting Requirements (continued)

5.6.6 Post Accident Monitoring (PAM) Instrumentation Report

When a report is required by Condition B or F of LCO 3.3.3.1, "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

5.6.7 <u>Reactor Coolant System (RCS) Pressure and Temperature Limits</u> Report (PTLR)

RCS pressure and temperature limits for heatup, cooldown, low temperature operation, criticality, and hydrostatic testing as well as heatup and cooldown rates shall be established and documented in the PTLR for the Limiting Condition for Operation and Surveillance Requirements Section 3.4.11, "RCS Pressure and Temperature (P/T) Limits."

The analytical methods used to determine the RCS pressure and temperature limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

a. BWROG-TP-11-022-A, Revision 1 (SIR-05-044), "Pressure-Temperature Limits Report Methodology for Boiling Water Reactors," dated August 2013, (ML13277A557).

The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplements thereto.

5.6.8 Risk Informed Completion Time (RICT) Program Upgrade Report

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to using those methods to calculate a RICT. The report shall include:

a. The PRA models upgraded to include newly developed methods;

(continued)

5.6 Reporting Requirements

5.6.8 Risk Informed Completion Time (RICT) Program Upgrade Report (continued)

- b. A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review;"
- c. Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementations.



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-352

LIMERICK GENERATING STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 265 Renewed License No. NPF-39

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC, dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-39 is hereby amended to read as follows:

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 265, are hereby incorporated into this renewed license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical Specifications and Renewed Facility Operating License

Date of Issuance: December 18, 2024

ATTACHMENT TO LICENSE AMENDMENT NO. 265

RENEWED FACILITY OPERATING LICENSE NO. NPF-39

LIMERICK GENERATING STATION, UNIT 1

DOCKET NO. 50-352

Replace the following pages of the Renewed Facility Operating License and Appendix A, Technical Specifications (TSs), with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	Insert
<u>License NPF-39</u>	<u>License NPF-39</u>
Page 3	Page 3
<u>TSs</u>	<u>TSs</u>
6 – 14f	6 – 14f
	6 – 18b

- (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and to use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40, 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility, and to receive and possess, but not separate, such source, byproduct, and special nuclear materials as contained in the fuel assemblies and fuel channels from the Shoreham Nuclear Power Station.
- C. This renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below) and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) <u>Maximum Power Level</u>

Constellation Energy Generation, LLC is authorized to operate the facility at reactor core power levels not in excess of 3515 megawatts thermal (100% rated power) in accordance with the conditions specified herein and in Attachment 1 to this license. The items identified in Attachment 1 to this renewed license shall be completed as specified. Attachment 1 is hereby incorporated into this renewed license.

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 265, are hereby incorporated into this renewed license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

- d. For emergent conditions, if the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the ACTION allowed outage time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
 - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation; or
 - 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, and seismic hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.
- f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3 "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."
- g. A report shall be submitted in accordance with Specification 6.9.3 before a newly developed method is used to calculate a RICT.

CORE OPERATING LIMITS REPORT

6.9.3 Risk Informed Completion Time (RICT) Program Upgrade Report

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

- a. The PRA models upgraded to include newly developed methods;
- b. A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review;"
- c. Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementations.



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-353

LIMERICK GENERATING STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 227 Renewed License No. NPF-85

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC, dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-85 is hereby amended to read as follows:

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 227, are hereby incorporated into this renewed license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical Specifications and Renewed Facility Operating License

Date of Issuance: December 18, 2024

ATTACHMENT TO LICENSE AMENDMENT NO. 227

RENEWED FACILITY OPERATING LICENSE NO. NPF-85

LIMERICK GENERATING STATION, UNIT 2

DOCKET NO. 50-353

Replace the following pages of the Renewed Facility Operating License and Appendix A, Technical Specifications (TSs), with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	<u>Insert</u>
<u>License NPF-85</u>	<u>License NPF-85</u>
Page 3	Page 3
<u>TSs</u>	<u>TSs</u>
6 – 14f	6 – 14f
	6 – 18b

- (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and to use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended:
- (3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40, 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility, and to receive and possess, but not separate, such source, byproduct, and special nuclear materials as contained in the fuel assemblies and fuel channels from the Shoreham Nuclear Power Station.
- C. This renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below) and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) <u>Maximum Power Level</u>

Constellation Energy Generation, LLC is authorized to operate the facility at reactor core power levels of 3515 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 227, are hereby incorporated into this renewed license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

- d. For emergent conditions, if the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the ACTION allowed outage time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
 - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation; or
 - 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, and seismic hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.
- f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."
- g. A report shall be submitted in accordance with Specification 6.9.3 before a newly developed method is used to calculate a RICT.

CORE OPERATING LIMITS REPORT

6.9.3 Risk Informed Completion Time (RICT) Program Upgrade Report

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

- a. The PRA models upgraded to include newly developed methods;
- b. A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review;"
- c. Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementations.



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

NINE MILE POINT NUCLEAR STATION, LLC

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-220

NINE MILE POINT NUCLEAR STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 254 Renewed License No. DPR-63

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC, dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-63 is hereby amended to read as follows:

2.C.(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, which is attached hereto, as revised through Amendment No. 254, is hereby incorporated into this license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical Specifications and Renewed Facility Operating
License

Date of Issuance: December 18, 2024

ATTACHMENT TO LICENSE AMENDMENT NO. 354

NINE MILE POINT NUCLEAR STATION, UNIT 1

RENEWED FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Replace the following pages of the Renewed Facility Operating License and Appendix A, Technical Specifications (TSs), with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	<u>Insert</u>
<u>License DPR-63</u>	<u>License DPR-63</u>
Page 4	Page 4
<u>TSs</u>	<u>TSs</u>
355c	355c
358a	358a

(1) <u>Maximum Power Level</u>

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 1850 megawatts (thermal).

(2) <u>Technical Specifications and Environmental Protection Plan</u>

The Technical Specifications contained in Appendix A, which is attached hereto, as revised through Amendment No. 354, is hereby incorporated into this license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications.

- (3) Deleted
- D. This license is subject to the following additional conditions:
 - (1) NMP LLC will complete construction of a new radwaste facility in conformance with the design defined and evaluated in the FES, to be operational no later than June 1976.
 - (2) Deleted by License Amendment No. 51
 - (3) Deleted by License Amendment No. 51
 - (4) <u>Security, Training and Qualification and Safeguards Contingency Plans</u>

Constellation Energy Generation, LLC shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans, including amendments made pursuant to the provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21 is entitled "Nine Mile Point Nuclear Station, LLC Physical Security, Safeguards Contingency, and Security Training and Qualification Plan, Revision 1," and was submitted by letter dated April 26, 2006.

Constellation Energy Generation, LLC shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The licensee's CSP was approved by License Amendment No. 209 and modified by License Amendment No. 219. The licensee has obtained Commission authorization to use Section 161A preemption authority under 42 U.S.C 2201a for weapons at its facility.

(5) Paragraph 2.D(5) of the license has been combined with paragraph 2.D(4) as amended above into a single paragraph.

- d. For emergent conditions, if the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the Completion Time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
 - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation; or
 - 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. A RICT calculation must include the follow hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, seismic hazards using penalty factors, and configuration-specific straight wind and tornado wind pressure / tornado missile hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.
- f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."
- g. A report shall be submitted in accordance with Specification 6.6.8 before a newly developed method is used to calculate a RICT.

AMENDMENT NO. 250 354 355c

- b. The analytical methods used to determine the RCS pressure and temperature limits shall be those previously reviewed and approved by the NRC, specifically those described in the following document:
 - 1. SIR-05-044-A, "Pressure-Temperature Limits Report Methodology for Boiling Water Reactors," Revision 0, April 2007.
- c. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto.

6.6.8 Risk Informed Completion Time (RICT) Program Upgrade Report

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

- a. The PRA models upgraded to include newly developed methods;
- b. A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review;"
- c. Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementations.

AMENDMENT NO. 204 354 358a



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

NINE MILE POINT NUCLEAR STATION, LLC

LONG ISLAND LIGHTING COMPANY

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-410

NINE MILE POINT NUCLEAR STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 198 Renewed License No. NPF-69

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

- 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-69 is hereby amended to read as follows:
 - (2) <u>Technical Specifications and Environmental Protection Plan</u>

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 198, are hereby incorporated into this license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications and Renewed
Facility Operating License

Date of Issuance: December 18, 2024

ATTACHMENT TO LICENSE AMENDMENT NO. 198

RENEWED FACILITY OPERATING LICENSE NO. NPF-69

NINE MILE POINT NUCLEAR STATION, UNIT 2

DOCKET NO. 50-410

Replace the following pages of the Renewed Facility Operating License and Appendix A, Technical Specifications (TSs), with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

<u>Remove</u>	<u>Insert</u>
License NPF-69 Page 4 Page 15 Page 16	<u>License NPF-69</u> Page 4 Page 15 Page 16
<u>TSs</u> 5.5 – 14 5.6 – 4	<u>TSs</u> 5.5 – 14 5.5 – 15 5.6 – 4 5.6 – 5

(1) Maximum Power Level

Constellation Energy Generation, LLC is authorized to operate the facility at reactor core power levels not in excess of 3988 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 198, are hereby incorporated into this license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Fuel Storage and Handling (Section 9.1, SSER 4)*

- a. Fuel assemblies, when stored in their shipping containers, shall be stacked no more than three containers high.
- b. When not in the reactor vessel, no more than three fuel assemblies shall be allowed outside of their shipping containers or storage racks in the New Fuel Vault or Spent Fuel Storage Facility.
- c. The above three fuel assemblies shall maintain a minimum edge-toedge spacing of twelve (12) inches from the shipping container array and approved storage rack locations.
- d. The New Fuel Storage Vault shall have no more than ten fresh fuel assemblies uncovered at any one time.

(4) <u>Turbine System Maintenance Program (Section 3.5.1.3.10 SER)</u>

The operating licensee shall submit for NRC approval by October 31, 1989, a turbine system maintenance program based on the manufacturer's calculations of missile generation probabilities. (Submitted by NMPC letter dated October 30, 1989 from C.D. Terry and approved by NRC letter dated March 15, 1990 from Robert Martin to Mr. Lawrence Burkhardt, III).

^{*} The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report (SER) and/or its supplements wherein the license condition is discussed.

- (25) Within 14 days of the closing of the transaction approved on November 16, 2021, Constellation Energy Generation, LLC shall submit to the NRC the Nuclear Operating Services Agreement reflecting the terms set forth in the application dated February 25, 2021. Section 7.1 of the Nuclear Operating Services Agreement may not be modified in any material respect related to financial arrangements that would adversely impact the ability of the licensee to fund safety-related activities authorized by the license without the prior written consent of the Director of the Office of Nuclear Reactor Regulation.
- (26) Deleted.
- (27) Deleted.
- (28) Deleted.
- (29) Adoption of Risk Informed Completion Times TSTF-505, Revision 2, "Provide Risk-Informed Extension Completion Times - RITSTF Initiative 4b"

Constellation Energy Generation, LLC is approved to implement TSTF-505, Revision 2, modifying the Technical Specification requirements related to Completion Times (CT) for Required Actions to provide the option to calculate a longer, risk-informed CT (RICT). The methodology for using the new Risk-Informed Completion Time Program is described in NEI 06-09-A, "Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines," Revision 0, which was approved by the NRC on May 17, 2007.

(30)Constellation Energy Generation, LLC is approved to implement 10 CFR 50.69 using the processes for categorization of Risk-Informed Safety Class (RISC)-1, RISC-2, RISC-3, and RISC-4 Structures, Systems, and Components (SSCs) using: Probabilistic Risk Assessment (PRA) models to evaluate risk associated with internal events, including internal flooding, and internal fire; the shutdown safety assessment process to assess shutdown risk; the Arkansas Nuclear One, Unit 2 (ANO-2) passive categorization method to assess passive component risk for Class 2 and Class 3 and non-Class SSCs and their associated supports; the results of the non-PRA evaluations that are based on the IPEEE Screening Assessment for External Hazards updated using the external hazard screening significance process identified in ASME/ANS PRA Standard RA-Sa-2009 for other external hazards except seismic; and the alternative seismic approach described in Exelon's submittal letter dated December 26, 2019, and all its subsequent associated supplements as specified in License Amendment No. 183 dated January 29, 2021.

Prior NRC approval, under 10 CFR 50.90, is required for a change to the categorization process specified above (e.g., change from a seismic margins approach to a seismic probabilistic risk assessment approach).

- D. The facility requires exemptions from certain requirements of 10 CFR Part 50 and 10 CFR Part 70.
 - i) An exemption from the critically alarm requirements of 10 CFR Part 70.24 was granted in the Special Nuclear Materials License No. SNM-1895 dated November 27, 1985. This exemption is described in Section 9.1 of Supplement 4 to the SER. This previously granted exemption is continued continued in this operating license.
 - ii) Exemptions to certain requirements of Appendix J to 10 CFR Part 50 are described in Supplements 3, 4, and 5 to the SER. These include (a) (this item left intentionally blank); (b) an exemption from the requirement of Option B of Appendix J, exempting main steam isolation valve measured leakage from the combined leakage rate limit of 0.6 La. (Section 6.2.6 of SSER 5)*; (c) an exemption from Option B of Appendix J, exempting the

^{*}The parenthetical notation following the discussion of each exemption denotes the section of the Safety Evaluation Report (SER) and/or its supplements wherein the safety evaluation of the exemption is discussed.

5.5.15 <u>Risk Informed Completion Time Program</u>

This program provides controls to calculate a Risk Informed Completion Time (RICT) and must be implemented in accordance with NEI 06-09-A, Revision 0, "Risk-Managed Technical Specifications (RMTS) Guidelines."

The program shall include the following:

- a. The RICT may not exceed 30 days;
- b. A RICT may only be utilized in MODE 1, 2;
- c. When a RICT is being used, any change to the plant configuration, as defined in NEI 06-09-A, Appendix A, must be considered for the effect on the RICT.
 - 1. For planned changes, the revised RICT must be determined prior to implementation of the change in configuration.
 - 2. For emergent conditions, the revised RICT must be determined within the time limits of the Required Action Completion Time (i.e., not the RICT) or 12 hours after the plant configuration change, whichever is less.
 - 3. Revising the RICT is not required if the plant configuration change would lower plant risk and would result in a longer RICT.
- d. For emergent conditions, if the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the Completion Time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
 - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation; or
 - Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, and seismic hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.

(continued)

5.5 Programs and Manuals

5.5.15 <u>Risk Informed Completion Time Program</u> (continued)

- f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."
- g. A report shall be submitted in accordance with Specification 5.6.9 before a newly developed method is used to calculate a RICT.

5.6.6 <u>Post Accident Monitoring (PAM) Instrumentation Report</u>

When a report is required by Condition B or F of LCO 3.3.3.1, "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

5.6.7 Reactor Coolant System (RCS) Pressure and Temperature Limits Report (PTLR)

- a. RCS pressure and temperature limits for heatup, cooldown, low temperature operation, criticality, and system leakage and hydrostatic testing as well as heatup and cooldown rates shall be established and documented in the PTLR for the following:
 - 1. Limiting Condition for Operation 3.4.11, "RCS Pressure and Temperature (P/T) Limits."
 - 2. Surveillance Requirements 3.4.11.1 through 3.4.11.9
- b. The analytical methods used to determine the RCS pressure and temperature limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents.
 - 1. NEDC-33178P-A, Revision 1, "General Electric Methodology for Development of Reactor Pressure Vessel Pressure-Temperature Curves," dated June 2009. The licensee will calculate the fluence for determining the adjusted reference temperature using either; (1) values determined using an NRC-approved, RG-1.190-adherent method, or (2) a fluence estimate, which the licensee has verified as conservative, using an NRC-approved, RG 1.190-adherent method.
- c. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto.

5.6.8 OPRM Report

When a report is required by Required Action F.3 of TS 3.3.1.1, "RPS Instrumentation," a report shall be submitted within the following 90 days. The report shall outline the preplanned means to provide backup stability protection, the cause of the inoperability, and the plans and schedule for restoring the required instrumentation channels to operable status.

(continued)

5.6 Reporting Requirements

5.6.9 <u>Risk Informed Completion Time (RICT) Program Upgrade Report</u>

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

- a. The PRA models upgraded to include newly developed methods:
- b. A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review;"
- c. Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementations.



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

CONSTELLATION ENERGY GENERATION, LLC

PSEG NUCLEAR, LLC

DOCKET NO. 50-277

PEACH BOTTOM ATOMIC POWER STATION, UNIT 2

AMENDMENT TO SUBSEQUENT RENEWED FACILITY OPERATING LICENSE

Amendment No. 345 Subsequent Renewed License No. DPR-44

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Subsequent Renewed Facility Operating License No. DPR-44 is hereby amended to read as follows:

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 345, are hereby incorporated in the license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications and Subsequent
Renewed Facility Operating License

Date of Issuance: December 18, 2024

ATTACHMENT TO LICENSE AMENDMENT NO. 345

SUBSEQUENT RENEWED FACILITY OPERATING LICENSE NO. DPR-44

PEACH BOTTOM ATOMIC POWER STATION, UNIT 2

DOCKET NO. 50-277

Replace the following pages of the Subsequent Renewed Facility Operating License and Appendix A, Technical Specifications (TSs), with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

<u>Remove</u>	<u>insert</u>
<u>License DPR-44</u> Page 3 Page 13 Page 15	<u>License DPR-44</u> Page 3 Page 13 Page 15
<u>TSs</u> 5.0 – 18d 	<u>TSs</u> 5.0 – 18d 5.0 – 22a

- (1) Constellation Energy Generation, LLC, pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility and PSEG Nuclear to possess the facility at the designated location in Peach Bottom, York County, Pennsylvania in accordance with the procedures and limitations set forth in this license;
- (2) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (3) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or instrument calibration or when associated with radioactive apparatus or components;
- (5) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not to separate, such byproduct and special nuclear material as may be produced by operation of the facility, and such Class B and Class C low-level radioactive waste as may be produced by the operation of Limerick Generating Station, Units 1 and 2.
- C. This subsequent renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 of Part 50, and Section 70.32 of Part 70; all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:

(1) Maximum Power Level

Constellation Energy Generation, LLC is authorized to operate the Peach Bottom Atomic Power Station, Unit 2, at steady state reactor core power levels not in excess of 4016 megawatts thermal.

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 345, are hereby incorporated in the license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications.

Page 3

(16) Maximum Extended Load Line Limit Analysis Plus (MELLLA+) Special Consideration

The licensee shall not operate the facility within the MELLLA+ operating domain with a feedwater heater out of service resulting in more than a 10°F reduction in feedwater temperature below the design feedwater temperature.

(17) Adoption of 10 CFR 50.69, "Risk-informed Categorization and Treatment of Structures, Systems, and Components for Nuclear Power Plants"

In support of implementing License Amendment No. 321 permitting the adoption of the provisions of 10 CFR 50.69 for Renewed Facility Operating License No. DPR-44 for Peach Bottom Unit 2, the license is amended to add the following license condition:

The licensee is approved to implement 10 CFR 50.69 using the (a) processes for categorization of Risk-Informed Safety Class (RISC)-1, RISC-2, RISC-3, and RISC-4 structures, systems, and components (SSCs) using: Probabilistic Risk Assessment (PRA) models to evaluate risk associated with internal events, including internal flooding, and internal fire; the shutdown safety assessment process to assess shutdown risk; the Arkansas Nuclear One, Unit 2 (ANO-2) passive categorization method to assess passive component risk for Class 2 and Class 3 SSCs and their associated supports; and the results of non-PRA evaluations that are based on the IPEEE Screening Assessment for External Hazards, i.e., seismic margin analysis (SMA) to evaluate seismic risk, and a screening of other external hazards updated using the external hazard screening significance process identified in ASME/ANS PRA Standard RA-Sa 2009; as specified in Unit 2 License Amendment No. 321 dated October 25, 2018.

Prior NRC approval, under 10 CFR 50.90, is required for a change to the categorization process specified above (e.g., change from a seismic margins approach to a seismic probabilistic risk assessment approach).

the licensee may make changes to the programs, activities, and commitments described in the Subsequent License Renewal UFSAR Supplement, provided the licensee evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59, "Changes, Tests, and Experiments," and otherwise complies with the requirements in that section.

- (b) The Subsequent License Renewal UFSAR Supplement, as defined in subsequent renewed license condition (19)(a) above, describes programs to be implemented and activities to be completed prior to the subsequent period of extended operation, which is the period following the August 8, 2033, expiration of the initial renewed license.
 - Constellation Energy Generation, LLC shall implement those new programs and enhancements to existing programs no later than 6 months before the subsequent period of extended operation.
 - Constellation Energy Generation, LLC shall complete those activities by the 6-month date prior to the subsequent period of extended operation or by the end of the last refueling outage before the subsequent period of extended operation, whichever occurs later.
 - 3. Constellation Energy Generation, LLC shall notify the NRC in writing within 30 days after having accomplished item (b)1 above and include the status of those activities that have been or remain to be completed in item (b)2 above.
- (20) PRA Model Updates to Support Implementation of the Risk Informed Completion Time (RICT) Program

Constellation Energy Generation, LLC is approved to implement TSTF-505, Revision 2, modifying the Technical Specification requirements related to Completion Times (CT) for Required Actions to provide the option to calculate a longer, risk-informed CT. The methodology for using the new Risk-Informed Completion Time (RICT) Program is described in NEI 06-09-A, "Risk- Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines," Revision 0, which was approved by the NRC on May 17, 2007.

5.5.16. <u>Risk Informed Completion Time Program</u> (continued)

- d. For emergent conditions, if the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the Completion Time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
 - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation; or
 - 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, seismic hazards using penalty factors, and tornado missile hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.
- f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."
- g. A report shall be submitted in accordance with Specification 5.6.9 before a newly developed method is used to calculate a RICT.

5.6.9 <u>Risk Informed Completion Time (RICT) Program Upgrade Report</u>

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

- a. The PRA models upgraded to include newly developed methods;
- b. A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review:"
- c. Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementations.



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

CONSTELLATION ENERGY GENERATION, LLC

PSEG NUCLEAR, LLC

DOCKET NO. 50-278

PEACH BOTTOM ATOMIC POWER STATION, UNIT 3

AMENDMENT TO SUBSEQUENT RENEWED FACILITY OPERATING LICENSE

Amendment No. 348 Subsequent Renewed License No. DPR-56

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Subsequent Renewed Facility Operating License No. DPR-56 is hereby amended to read as follows:

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 348, are hereby incorporated in the license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications and Subsequent
Renewed Facility Operating License

Date of Issuance: December 18, 2024

ATTACHMENT TO LICENSE AMENDMENT NO. 348

SUBSEQUENT RENEWED FACILITY OPERATING LICENSE NO. DPR-56

PEACH BOTTOM ATOMIC POWER STATION, UNIT 3

DOCKET NO. 50-278

Replace the following pages of the Subsequent Renewed Facility Operating License and Appendix A, Technical Specifications (TSs), with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	<u>insert</u>
<u>License DPR-56</u> Page 3 Page 13 Page 15	<u>License DPR-56</u> Page 3 Page 13 Page 15
<u>TSs</u> 5.0 – 18d 	<u>TSs</u> 5.0 – 18d 5.0 – 22a

Pennsylvania in accordance with the procedures and limitations set forth in this license;

- (2) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (3) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or instrument calibration or when associated with radioactive apparatus or components;
- (5) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not to separate, such byproduct and special nuclear material as may be produced by operation of the facility, and such Class B and Class C low-level radioactive waste as may be produced by the operation of Limerick Generating Station, Units 1 and 2.
- C. This subsequent renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 of Part 50, and Section 70.32 of Part 70; all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:

(1) Maximum Power Level

Constellation Energy Generation, LLC is authorized to operate the Peach Bottom Atomic Power Station, Unit No. 3, at steady state reactor core power levels not in excess of 4016 megawatts thermal.

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 348, are hereby incorporated in the license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications.

(a) The licensee is approved to implement 10 CFR 50.69 using the processes for categorization of Risk-Informed Safety Class (RISC)-1, RISC-2, RISC-3, and RISC-4 structures, systems, and components (SSCs) using: Probabilistic Risk Assessment (PRA) models to evaluate risk associated with internal events, including internal flooding, and internal fire; the shutdown safety assessment process to assess shutdown risk; the Arkansas Nuclear One, Unit 2 (ANO-2) passive categorization method to assess passive component risk for Class 2 and Class 3 SSCs and their associated supports; and the results of non-PRA evaluations that are based on the IPEEE Screening Assessment for External Hazards, i.e., seismic margin analysis (SMA) to evaluate seismic risk, and a screening of other external hazards updated using the external hazard screening significance process identified in ASME/ANS PRA Standard RA-Sa-2009; as specified in Unit 3 License Amendment No. 324 dated October 25, 2018.

Prior NRC approval, under 10 CFR 50.90, is required for a change to the categorization process specified above (e.g., change from a seismic margins approach to a seismic probabilistic risk assessment approach).

- (18) This subsequent renewed license is subject to the following conditions for the protection of the environment:
 - (a) To the extent matters related to thermal discharges are treated therein, operation of Peach Bottom Atomic Power Station, Unit No. 3, will be governed by NPDES Permit No. PA 0009733, as now in effect and as hereafter amended. Questions pertaining to conformance thereto shall be referred to and shall be determined by the NPDES Permit issuing or enforcement authority, as appropriate.
 - (b) In the event of any modification of the NPDES Permit related to thermal discharges or the establishment (or amendment) of alternative effluent limitations established pursuant to Section 316 of the Federal Water Pollution Control Act, the licensee shall inform the NRC and analyze any associated changes in or to the Station, its components, its operation or in the discharge of effluents therefrom. If such change would entail any modification to this license, or any Technical Specifications which are part of this license, or require NRC approval pursuant to 10 CFR 50.59 or involve an environmental

- Constellation Energy Generation, LLC shall complete those activities by the 6-month date prior to the subsequent period of extended operation or by the end of the last refueling outage before the subsequent period of extended operation, whichever occurs later.
- 3. Constellation Energy Generation, LLC shall notify the NRC in writing within 30 days after having accomplished item (b)1 above and include the status of those activities that have been or remain to be completed in item (b)2 above.
- (20) PRA Model Updates to Support Implementation of the Risk Informed Completion Time (RICT) Program

Constellation Energy Generation, LLC is approved to implement TSTF-505, Revision 2, modifying the Technical Specification requirements related to Completion Times (CT) for Required Actions to provide the option to calculate a longer, risk-informed CT. The methodology for using the new Risk-Informed Completion Time (RICT) Program is described in NEI 06-09-A, "Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines," Revision 0, which was approved by the NRC on May 17, 2007.

3. This subsequent renewed license is effective as of the date of issuance and shall expire at midnight on July 2, 2034.

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

/RA/

Ho K. Nieh, Director Office of Nuclear Reactor Regulation

Attachments:

Appendix A - Technical Specifications Peach Bottom Atomic Power Station Unit No. 3

Appendix B - Environmental Protection Plan

Date of Issuance: March 5, 2020

5.5.16. <u>Risk Informed Completion Time Program</u> (continued)

- d. For emergent conditions, if the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the Completion Time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
 - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation; or
 - 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, seismic hazards using penalty factors, and tornado missile hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.
- f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulator positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."
- g. A report shall be submitted in accordance with Specification 5.6.9 before a newly developed method is used to calculate a RICT.

5.6 Reporting Requirements (continued)

5.6.9 Risk Informed Completion Time (RICT) Program Upgrade Report

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

- a. The PRA models upgraded to include newly developed methods;
- b. A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review;"
- c. Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementations.



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

R. E. GINNA NUCLEAR POWER PLANT, LLC

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-244

R. E. GINNA NUCLEAR POWER PLANT

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 157 Renewed License No. DPR-18

- 1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Constellation Energy Generation, LLC dated April 12, 2024, as supplement by letters dated August 9, 2024, and November 26, 2024, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-18 is hereby amended to read as follows:

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 157, are hereby incorporated in the renewed license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Ilka Berrios, Acting Chief Plant Licensing Branch III Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical Specifications and Renewed Facility Operating License

Date of Issuance: December 18, 2024

ATTACHMENT TO LICENSE AMENDMENT NO. 157

RENEWED FACILITY OPERATING LICENSE NO. DPR-18

R. E. GINNA NUCLEAR POWER PLANT

DOCKET NO. 50-244

Replace the following pages of the Renewed Facility Operating License and Appendix A, Technical Specifications (TSs), with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	<u>Insert</u>
<u>License DPR-18</u>	<u>License DPR-18</u>
Page 4	Page 4
Page 9	Page 9
<u>TSs</u>	<u>TSs</u>
5.5 – 14	5.5 – 14
5.6 – 6	5.6 – 6

(2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 157, are hereby incorporated in the renewed license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications.

(3) Fire Protection

Constellation Energy Generation, LLC shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the licensee's amendment request dated March 28, 2013, supplemented by letters dated December 17, 2013; January 29, 2014; February 28, 2014; September 5, 2014; September 24, 2014; December 4, 2014; March 18. 2015; June 11, 2015; August 7, 2015; and as approved in the safety evaluation report dated November 23, 2015. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and provided no other regulation, technical specification, license condition or requirement would require prior NRC approval, the licensee may make changes to the fire protection program without prior approval of the Commission if those changes satisfy the provisions set forth in 10 CFR 50.48(a) and 10 CFR 50.48(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

(a) Risk-Informed Changes that May Be Made Without Prior NRC Approval

A risk assessment of the change must demonstrate that the acceptance criteria below are met. The risk assessment approach, methods, and data shall be acceptable to the NRC and shall be appropriate for the nature and scope of the change being evaluated; be based on the as-built, as-operated, and maintained plant; and reflect the operating experience at the plant. Acceptable methods to assess the risk of the change may include methods that have been used in the peer-reviewed fire PRA model, methods that have been approved by NRC through a plant-specific license amendment or NRC approval of generic methods specifically for use in NFPA 805 risk assessments, or methods that have been demonstrated to bound the risk impact.

1. Prior NRC review and approval is not required for changes that clearly result in a decrease in risk. The proposed change must also be consistent with the defense in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.

(17) Adoption of Risk Informed Completion Times TSTF-505, Revision 2, "Provide Risk-Informed Extended Completion Times -RITSTF Initiative 4b"

Constellation Energy Generation, LLC is approved to implement TSTF-505, Revision 2, modifying the Technical Specification requirements related to Completion Times (CT) for Required Actions to provide the option to calculate a longer, risk-informed CT (RICT). The methodology for using the new Risk-Informed Completion Time Program is described in NEI 06-09-A, "Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines," Revision 0, which was approved by the NRC on May 17, 2007.

- (18) Deleted
- (19) Constellation Energy Generation, LLC shall provide to the Director of the Office of Nuclear Reactor Regulation or the Director of the Office of Nuclear Material Safety and Safeguards, as applicable, a copy of any application, at the time it is filed, to transfer (excluding grants of security interests or liens) from Constellation Energy Generation, LLC to its direct or indirect parent, or to any other affiliate company, facilities for the production, transmission, or distribution of electric energy having a depreciated book value exceeding ten percent (10%) of Constellation Energy Generation, LLC's consolidated net utility plant, as recorded on Constellation Energy Generation, LLC's books of account.
- (20)Constellation Energy Generation, LLC is approved to implement 10 CFR 50.69 using the processes for categorization of Risk-Informed Safety Class (RISC)-1, RISC-2, RISC-3, and RISC-4 Structures, Systems, and Components (SSCs) using: Probabilistic Risk Assessment (PRA) models to evaluate risk associated with internal events, including internal flooding, and internal fire; the shutdown safety assessment process to assess shutdown risk; the Arkansas Nuclear One, Unit 2 (ANO-2) passive categorization method to assess passive component risk for Class 2 and Class 3 and non-Class SSCs and their associated supports; the results of the non-PRA evaluations that are based on the IPEEE Screening Assessment for External Hazards updated using the external hazard screening significance process identified in ASME/ANS PRA Standard RA-Sa-2009 for other external hazards except seismic; and the alternative seismic approach as described in Exelon's submittal letter dated May 20, 2021, and all its subsequent associated supplements as specified in License Amendment No. 151 dated June 22, 2022.

- c. When a RICT is being used, any change to the plant configuration, as defined in NEI 06-09-A, Appendix A, must be considered for the effect on the RICT.
 - 1. For planned changes, the revised RICT must be determined prior to implementation of the change in configuration.
 - 2. For emergent conditions, the revised RICT must be determined within the time limits of the Required Action Completion Time (i.e., not the RICT) or 12 hours after the plant configuration change, whichever is less.
 - 3. Revising the RICT is not required If the plant configuration change would lower plant risk and would result in a longer RICT.
- d. For emergent conditions, if the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the Completion Time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
 - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation; or
 - 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, seismic hazards using penalty factors, and configuration-specific tornado missile hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.
- f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."
- g. A report shall be submitted in accordance with Specification 5.6.8 before a newly developed method is used to calculate a RICT.

- d. An analysis summary of the tube integrity conditions predicted to exist at the next scheduled inspection (the forward-looking tube integrity assessment) relative to the applicable performance criteria, including the analysis methodology, inputs, and results;
- e. The number and percentage of tubes plugged to date, and the effective plugging percentage in each SG; and
- f. The results of any SG secondary side inspections.

5.6.8 Risk Informed Completion Time (RICT) Program Upgrade Report

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

- a. The PRA models upgraded to include newly developed methods;
- A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review;"
- Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementations.



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO

AMENDMENT NO. 236 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-72

AMENDMENT NO. 236 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-77

AMENDMENT NO. 235 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-37

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JAMES A. FITZPATRICK NUCLEAR POWER PLANT

LASALLE COUNTY STATION, UNITS 1 AND 2

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DOCKET NOS. 50-461, 50-237, 50-249, 50-373, 50-374,

50-410, 50-277, 50-278, 50-254, AND 50-265

DOCKET NOS. STN 50-456, STN 50-457, STN 50-454, STN 50-455,

<u>50-317, 50-318, 50-461, 50-333, 50-373, 50-374, 50-352, 50-353,</u>

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Application (i.e., initial and supplements)

- April 12, 2024, ML24103A204
- August 9, 2024, ML24222A677
- November 26, 2024, ML24331A279

Safety Evaluation Date

December 18, 2024

Principal Contributor to Safety

Evaluation

- Andrea Russell
- Adrienne Brown
- Scott Wall

1.0 PROPOSED CHANGES

Constellation Energy Generation, LLC (CEG, the licensee) requested changes to the technical specifications (TSs) for Braidwood Station (Braidwood), Units 1 and 2; Byron Station (Byron), Unit Nos. 1 and 2; Calvert Cliffs Nuclear Power Plant (Calvert Cliffs), Units 1 and 2; Clinton Power Station (Clinton), Unit 1; James A. Fitzpatrick Nuclear Power Plant (FitzPatrick); Lasalle County Station (Lasalle), Units 1 and 2; Limerick Generating Station (Limerick), Units 1 and 2; Nine Mile Point Nuclear Station (NMP), Units 1 and 2; Peach Bottom Atomic Power Station (Peach Bottom), Units 2 and 3; and R.E. Ginna Nuclear Power Plant (Ginna) (collectively, the CEG facilities), by license amendment request (LAR, application), as supplemented. The proposed changes would revise the TSs for each facility based on Technical Specifications

Task Force (TSTF) Traveler TSTF-591, Revision 0, "Revise Risk-Informed Completion Time (RICT) Program" (TSTF-591) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22081A224), and the associated U.S. Nuclear Regulatory Commission (NRC, the Commission) staff final safety evaluation (SE) of Traveler TSTF-591 (ML23262B230).

The proposed changes would revise the TSs listed in table 1 below for the RICT program, by referencing Regulatory Guide (RG) 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment [PRA] Results for Risk-Informed Activities," Revision 3, dated December 2020 (ML20238B871), instead of Revision 2, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment for Risk-Informed Activities," dated March 2009 (ML090410014). The proposed changes would also add a requirement in the TSs listed in Table 2 below for the licensee to submit a report to the NRC before calculating a RICT using a newly developed method (NDM).

Additionally, the proposed changes remove certain facility's Facility Operating License (FOL) condition sections associated with the implementation of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.69 (10 CFR 50.69), "Risk-informed categorization and treatment of structures, systems and components for nuclear power reactors," and RICT programs.

Description of Risk-Informed Completion Time Program

The TS limiting conditions for operations (LCOs) are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When an LCO is not met, the licensee must shut down the reactor or follow any remedial or required action (e.g., testing, maintenance, or repair activity) permitted by the TSs until the condition can be met. The remedial actions (i.e., ACTIONS) associated with an LCO contain Conditions that typically describe the ways in which the requirements of the LCO can fail to be met. Specified with each stated Condition are Required Action(s) and completion times (CTs). The CTs are referred to as the "front stops" in the context of this SE. For certain Conditions, the TS require exiting the Mode of Applicability of an LCO (e.g., shutdown the reactor).

Topical Report Nuclear Energy Institute (NEI) 06-09-A (ML12286A321) provides a methodology for extending existing CTs and thereby delay exiting the operational mode of applicability or taking Required Actions if risk is assessed and managed within the limits and programmatic requirements established by a RICT program.

1.1 Proposed TS Changes to Adopt TSTF-591

TS for the Risk Informed Completion Time Program

The TSs listed in Table 1 below, which describes the RICT program, would be revised. Existing paragraph e would be replaced with the paragraph e below. Paragraphs f and g would be added.

 Table 1: TSs Revised for the RICT Program

Facility	TSs Revised for the RICT Program		
Braidwood	TS 5.5.20: "Risk Informed Completion Time Program"		
	e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, and seismic hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.		
	f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."		
	g. A report shall be submitted in accordance with Specification 5.6.10 before a newly developed method is used to calculate a RICT.		
Byron	TS 5.5.20: "Risk Informed Completion Time Program"		
	e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, seismic hazards using penalty factors, and configuration-specific tornado missile hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.		
	f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."		
	g. A report shall be submitted in accordance with Specification 5.6.10 before a newly developed method is used to calculate a RICT.		
Calvert Cliffs	TS 5.5.18: "Risk Informed Completion Time Program"		
	e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, seismic hazards using penalty factors, and tornado missile hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.		
	f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."		
	g. A report shall be submitted in accordance with Specification 5.6.10 before a newly developed method is used to calculate a RICT.		

Facility	TSs Revised for the RICT Program		
Clinton	TS 5.5.17: "Risk Informed Completion Time Program"		
	e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, and seismic hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.		
	f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."		
	g. A report shall be submitted in accordance with Specification 5.6.6 before a newly developed method is used to calculate a RICT.		
FitzPatrick	TS 5.5.16: "Risk Informed Completion Time Program"		
	e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, and seismic hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.		
	f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."		
	g. A report shall be submitted in accordance with Specification 5.6.8 before a newly developed method is used to calculate a RICT.		
LaSalle	TS 5.5.17 "Risk Informed Completion Time Program"		
	e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, and seismic hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.		
	f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."		
	g. A report shall be submitted in accordance with Specification 5.6.8 before a newly developed method is used to calculate a RICT.		

Facility	TSs Revised for the RICT Program		
Limerick	TS 6.8.4.m "Risk Informed Completion Time Program"		
	e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, and seismic hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.		
	f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."		
	g. A report shall be submitted in accordance with Specification 6.9.3 before a newly developed method is used to calculate a RICT.		
NMP-1	TS 6.5.10 "Risk Informed Completion Time Program"		
	e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, seismic hazards using penalty factors, and configuration-specific straight wind and tornado wind pressure / tornado missile hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.		
	f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."		
	g. A report shall be submitted in accordance with Specification 6.6.8 before a newly developed method is used to calculate a RICT.		
NMP-2	TS 5.5.15 "Risk Informed Completion Time Program"		
	e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, and seismic hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.		
	f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."		
	g. A report shall be submitted in accordance with Specification 5.6.9 before a newly developed method is used to calculate a RICT.		

Facility	TSs Revised for the RICT Program		
Peach Bottom	TS 5.5.16: "Risk Informed Completion Time Program"		
	e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, seismic hazards using penalty factors, and tornado missile hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.		
	f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."		
	g. A report shall be submitted in accordance with Specification 5.6.9 before a newly developed method is used to calculate a RICT.		
Ginna	TS 5.5.18: "Risk Informed Completion Time Program"		
	e. A RICT calculation must include the following hazard groups: internal flood and internal events using a PRA model, internal fires using a PRA model, seismic hazards using penalty factors, and configuration-specific tornado missile hazards using penalty factors. Changes to these means of assessing the hazard groups require prior NRC approval.		
	f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."		
	g. A report shall be submitted in accordance with Specification 5.6.8 before a newly developed method is used to calculate a RICT.		

TS for the Risk Informed Completion Time Program Upgrade Report

 Table 2: TSs Added for the RICT Program Upgrade Report

Facility	TSs Added for the RICT Program Upgrade Report		
Braidwood	TS 5.6.10:	"Risk Informed Completion Time (RICT) Program Upgrade Report"	
Byron	TS 5.6.10:	"Risk Informed Completion Time (RICT) Program Upgrade Report"	
Calvert Cliffs	TS 5.6.10:	"Risk Informed Completion Time (RICT) Program Upgrade Report"	
Clinton	TS 5.6.6:	"Risk Informed Completion Time (RICT) Program Upgrade Report"	
FitzPatrick	TS 5.6.8:	"Risk Informed Completion Time (RICT) Program Upgrade Report"	
LaSalle	TS 5.6.8:	"Risk Informed Completion Time (RICT) Program Upgrade Report"	
Limerick	TS 6.9.3:	"Risk Informed Completion Time (RICT) Program Upgrade Report"	
NMP-1	TS 6.6.8:	"Risk Informed Completion Time (RICT) Program Upgrade Report"	

Facility	TSs Added for the RICT Program Upgrade Report	
NMP-2	TS 5.6.9:	"Risk Informed Completion Time (RICT) Program Upgrade Report"
Peach Bottom	TS 5.6.9: "Risk Informed Completion Time (RICT) Program Upgrade Report	
Ginna	TS 5.6.8:	"Risk Informed Completion Time (RICT) Program Upgrade Report"

Table 2 above lists the new specification that would be added to each of the facilities as follows:

Risk Informed Completion Time (RICT) Program Upgrade Report

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

- a. The PRA models upgraded to include newly developed methods;
- A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review,"
- c. Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and
- d. All changes to key assumptions related to newly developed methods or their implementation.

1.2 Additional Proposed TS Changes

In addition to the changes proposed consistent with the traveler discussed in section 1.1, the licensee proposed the variations below.

1.2.1 Editorial Variations

The licensee noted that all the facilities TSs listed in table 2, with the exception of Ginna, have different numbering and titles than standard technical specifications (STSs).

1.2.2 Other Variations

The licensee proposed changes to the FOL pages of several of the facilities. These differences do not affect the applicability of Traveler TSTF-591 to the proposed LAR, but are evaluated in section 3.2 of this SE.

Removal of Implementing Conditions for the RICT Program, in TSTF-505, Rev 2, Paragraph e

The LaSalle, NMP-2, Peach Bottom, and Ginna licenses each contain a condition that required certain implementation items be completed prior to the implementation of the RICT program, which also serves the same purpose as Paragraph e in Traveler TSTF-505, Revision 2, "Provide Risk-Informed Extended Completion Times – RITSTF Initiative 4b," dated July 2, 2018

(ML18183A493). The licensee proposed to remove the license condition since each of the stations listed have completed the required actions associated with implementing the RICT program and, therefore, the implementation conditions are no longer relevant.

Removal of Implementation Conditions for 10 CFR 50.69 Referencing RG 1.200, Revision 2

In section 2.2, "Variations," of the LAR, as supplemented, the licensee included proposed changes to specific FOL pages for Braidwood, Byron, LaSalle, NMP-2, Peach Bottom, and Ginna that would remove license conditions associated with implementation actions for the adoption of 10 CFR 50.69.

The licensee indicated that implementation conditions reference RG 1.200, Revision 2, and retaining them in the FOL pages would create a conflict with the adoption of Traveler TSTF-591, which references RG 1.200, Revision 3. Additionally, in table 1 of the August 9, 2024, supplement, the licensee demonstrated how the implementation actions have been completed and provided more detailed justification on how the license conditions are no longer relevant.

2.0 REGULATORY EVALUATION

2.1 Applicable Regulatory Requirements and Guidance

The regulation under 10 CFR 50.36(b) requires that:

Each license authorizing operation of a ... utilization facility ... will include technical specifications. The technical specifications will be derived from the analyses and evaluation included in the safety analysis report, and amendments thereto, submitted pursuant to [10 CFR] 50.34 ["Contents of applications; technical information"]. The Commission may include such additional technical specifications as the Commission finds appropriate.

The categories of items required to be in the TSs are listed in 10 CFR 50.36(c).

The regulation at 10 CFR 50.36(c)(5), states that administrative controls are the provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner.

NRC RGs provide one way to ensure that the regulations continue to be met. The NRC staff considered during its review of the proposed changes, along with industry guidance endorsed by the NRC, the guidance in RG 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities," December 2020 (ML20238B871).

- NUREG-0800, Revision 3, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR [light-water reactor] Edition" (SRP):
 - Chapter 19, Section 19.2, "Review of Risk Information Used to Support Permanent Plant-Specific Changes to the Licensing Basis: General Guidance," dated June 2007 (ML071700658).
 - Chapter 16, Section 16.0, "Technical Specifications," March 2010 (ML100351425).
 As described therein, as part of the regulatory standardization effort, the NRC staff has prepared STSs for each of the LWR nuclear designs. Accordingly, the NRC

staff's review includes consideration of whether the proposed changes are consistent with the applicable STSs, as modified by NRC-approved travelers. The applicable STSs to the facilities are:

- NRC NUREG-1431, "Standard Technical Specifications, Westinghouse Plants,"
 Volume 1, "Specifications," and Volume 2, "Bases," Revision 5, September 2021 (ML21259A155 and ML21259A159, respectively).
- NRC NUREG-1432, "Standard Technical Specifications, Combustion Engineering Plants," Volume 1, "Specifications," and Volume 2, "Bases," Revision 5, September 2021 (ML21258A421 and ML21258A424, respectively).
- NRC NUREG-1433, "Standard Technical Specifications, General Electric, BWR/4 Plants" Volume 1, "Specifications," and Volume 2, "Bases," Revision 5, September 2021 (ML21272A357 and ML21272A358, respectively).
- NRC NUREG-1434, "Standard Technical Specifications, General Electric, BWR/6 Plants" Volume 1, "Specifications," and Volume 2, "Bases," Revision 5, September 2021 (ML21271A582 and ML21271A596, respectively).
- Chapter 16, Section 16.1, "Risk-Informed Decision Making: Technical Specifications," March 2007 (ML070380228).
- NEI 06-09-A, Revision 0, "Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines" (ML063390639), provides guidance for risk-informed TS. The NRC staff issued a final SE approving NEI 06-09 on May 17, 2007 (ML071200238).
- NEI 17-07, Revision 2, "Performance of PRA Peer Reviews Using the ASME/ANS PRA Standard," provides guidance material for conducting and documenting a PRA peer review using the American Society of Mechanical Engineers (ASME)/American Nuclear Society (ANS) PRA Standard, issued August 2019 (ML19231A182).
- PWR Owners' Group (PWROG) topical report PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review," establishes the definitions, processes, and technical requirements necessary to implement newly developed methods, issued July 2020 (ML20213C660). RG 1.200, Revision 3, endorsed specified portions of PWROG-19027-NP.

3.0 <u>TECHNICAL EVALUATION</u>

3.1 Proposed TS Changes to Adopt TSTF-591

The NRC staff compared the licensee's proposed TS changes in section 1.1 of this SE against the changes approved in Traveler TSTF-591. The NRC staff finds that the licensee's proposed changes to the CEG facilities TSs in section 1.1 of this SE are consistent with those found acceptable in Traveler TSTF-591.

In the final SE for Traveler TSTF-591, the NRC staff concluded that the Traveler TSTF-591 proposed changes to STS 5.5.20, "Risk Informed Completion Time Program," and the proposed

addition of STS 5.6.8, "Risk Informed Completion Time (RICT) Program Upgrade Report," were acceptable. These modifications were acceptable because, as discussed in the traveler SE, they continued to ensure the PRA models used to calculate a RICT are maintained and upgraded by the licensee's appropriate use of endorsed guidance (i.e., the ASME/ANS PRA Standard requirements, and specific industry guidance that the NRC staff has determined are sufficient for determining the acceptability of PRA models and NDMs for use in the RICT program). Furthermore, as discussed in the traveler SE, the addition of reporting requirements does not preclude any NRC staff oversight of PRA changes performed to ensure the PRA model(s) continue to be maintained and upgraded consistent with RG 1.200, Revision 3. Therefore, the NRC staff found that the proposed changes to the RICT program and addition of the RICT Program Upgrade Report requirements were acceptable because they continued to meet the requirements of 10 CFR 50.36(c)(5) by providing administrative controls necessary to assure operation of the facility in a safe manner. For these same reasons, the NRC staff concludes that the corresponding proposed changes to the CEG facilities TSs in section 1.1 of this SE continue to meet the requirements of 10 CFR 50.36(c)(5).

3.2 Additional Proposed TS Changes

In addition to the changes proposed consistent with the traveler discussed in section 1.1, the licensee proposed the variations discussed in section 1.2, which are discussed below.

3.2.1 Editorial Variations

The licensee noted that all the facilities TSs listed in Table 2, with the exception of Ginna, have different numbering and titles than STSs. The NRC staff finds that the different TS numbering and titles changes proposed in the LAR are acceptable because they do not alter TS requirements.

3.2.2 Other Variations

RICT Program, Paragraph e

The licensee explained in its LAR, as supplemented, that the LaSalle, NMP-2, Peach Bottom, and Ginna license condition that serves the same purpose as paragraph e in Traveler TSTF-505, Revision 2, is no longer relevant as each of the stations listed has implemented the RICT program. The NRC staff reviewed the LAR, as supplemented and finds it acceptable to remove the license condition that serves the same purpose as paragraph e in Traveler TSTF-505, Revision 2. Additionally, the NRC staff finds that these implementation actions associated with the license conditions have been appropriately completed, therefore, can be removed.

Removal of Implementation Conditions Referencing RG 1.200, Revision 2

The licensee proposed to remove license conditions from the Braidwood, Byron, LaSalle, NMP-2, Peach Bottom, and Ginna, FOL pages associated with implementation actions for the adoption of 10 CFR 50.69 and/or Traveler TSTF-505. The licensee asserted these implementation actions have been completed, are no longer relevant, and do not affect the applicability of Traveler TSTF-591. Additionally, the licensee indicated that retaining reference to RG 1.200, Revision 2, in these implementation conditions would create a conflict with the adoption of Traveler TSTF-591, which references RG 1.200, Revision 3.

In RG 1.200, Revision 2, the NRC staff endorsed American Society of Mechanical Engineers (ASME)/American Nuclear Society (ANS) RA-Sa-2009, "Standard for Probabilistic Risk Assessment for Nuclear Power Plant Applications." The license conditions make reference to "the PRA standard (ASME/ANS RA-Sa-2009, as endorsed by RG 1.200, Revision 2)". RG 1.200, Revision 3, modifies this endorsement to reflect endorsement of terms and their definitions derived from PWROG19027NP, Revision 2. However, all other portions of the staff's endorsement of ASME/ANS RA-Sa-2009 from RG 1.200, Revision 2, were otherwise not changed by Revision 3. The NRC staff notes that are no technical differences between the staff's endorsement of either Revision 2 or Revision 3 that would impact the implementation of 10 CFR 50.69 or Traveler TSTF-505. However, the NRC staff finds that the removal of reference to RG 1.200, Revision 2, would reduce potential conflict by aligning the specific use of Revision 3 as the guidance across both the Traveler TSTF-505 and/or 10 CFR 50.69 programs.

In table 1 of the August 9, 2024, supplement, the licensee demonstrated how the implementation actions have been completed and provided more detailed justification on how the license conditions are no longer relevant. Based upon review of table 1, the NRC staff finds that these implementation actions associated with the license conditions have been appropriately completed, and therefore, can be removed.

3.3 TS Change Consistency

The NRC staff reviewed the proposed TS changes for technical clarity and consistency with the existing requirements for customary terminology and formatting. The NRC staff finds that the proposed changes are consistent with chapter 16.0 of the SRP and are therefore acceptable.

4.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

NOTICES AND ENVIRONMENTAL FINDINGS

RELATED TO

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Application (i.e., initial and supplements)

- April 12, 2024, ML24103A204
- August 9, 2024, ML24222A677
- November 26, 2024, ML24331A279

Safety Evaluation Date December 18, 2024

1.0 <u>INTRODUCTION</u>

Constellation Energy Generation, LLC (CEG) requested changes to the technical specifications (TSs) for Braidwood Station, Units 1 and 2; Byron Station, Unit Nos. 1 and 2; Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Clinton Power Station, Unit 1; James A. Fitzpatrick Nuclear Power Plant; Lasalle County Station, Units 1 and 2; Limerick Generating Station, Units 1 and 2; Nine Mile Point Nuclear Station, Units 1 and 2; Peach Bottom Atomic Power Station (Peach Bottom), Units 2 and 3; and R.E. Ginna Nuclear Power Plant (collectively, the CEG facilities), by license amendment request (application), as supplemented. The proposed changes would revise the TSs for each facility based on Technical Specifications Task Force (TSTF) Traveler TSTF-591, Revision 0, "Revise Risk-Informed Completion Time (RICT) Program" (TSTF-591) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22081A224), and the associated U.S. Nuclear Regulatory Commission (NRC, the Commission) staff final safety evaluation of Traveler TSTF-591 (ML23262B230).

On June 11, 2024, the NRC published a notice of consideration of approval of the application in the *Federal Register* (89 FR 49240). The supplemental letters dated August 9, 2024, and November 26, 2024, provided additional information that clarified the application, did not expand the scope of the application as noticed, and did not change the NRC staff proposed no

significant hazards consideration determination as published in the *Federal Register* on June 11, 2024 (89 FR 49240).

2.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Illinois, Maryland, New York State officials, and Commonwealth of Pennsylvania officials were notified of the proposed issuance of the amendments on October 17, 2024. The relevant officials had no comments.

3.0 <u>ENVIRONMENTAL CONSIDERATION</u>

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in Title 10 of the *Code of Federal Regulations* (10 CFR), part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, which was published in the *Federal Register* on June 11, 2024 (89 FR 49240), and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

D. Rhoades - 3 -

SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2; BYRON STATION, UNITS, 1 AND 2;

CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2; CLINTON POWER STATION, UNIT 1; JAMES A. FITZPATRICK NUCLEAR POWER

PLAN; LASALLE COUNTY STATION, UNITS 1 AND 2; LIMERICK

GENERATING STATION, UNITS 1 AND 2; NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2; PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3; AND R.E. GINNA NUCLEAR POWER PLANT – ISSUANCE OF AMENDMENTS TO ADOPT TECHNICAL SPECIFICATIONS TASK FORCE TRAVELER TSTF-591 (EPID L-2024-LLA-0046) DATED DECEMEBR 17, 2024

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Accession No.: ML24339B729 NRR-058

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DATE	09/05/2024	12/11/2024	12/17/2024
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