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

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-237

DRESDEN NUCLEAR POWER STATION, UNIT 2

SUBSEQUENT RENEWED FACILITY OPERATING LICENSE NO. DPR-19

1. The U.S. Nuclear Regulatory Commission (Commission) having previously made the findings set forth in license No. DPR-19 issued on February 20, 1991, has now found that:

   A. The application to subsequently renew license No. DPR-19 filed by the Exelon Generation Company, LLC* 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, and all required notifications to other agencies or bodies have been duly made;

   B. Construction of the Dresden Nuclear Power Station, Unit 2 (the facility) has been completed in conformity with Construction Permit No. CPPR-18 and the application, as amended, the provisions of the Act, and the regulations of the Commission, and has been operating under a provisional license since December 22, 1969;

   C. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the subsequent period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this subsequent renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for Dresden Nuclear Power Station, Unit 2 (facility or plant), and that any changes made to the plant's current licensing basis in order to comply with 10 CFR 54.29(a) are in accord with the Act and the Commission's regulations;

   D. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D below);

* The Nuclear Regulatory Commission approved the transfer of the license from Commonwealth Edison Company to Exelon Generation Company, LLC on August 3, 2000. The Nuclear Regulatory Commission approved a transaction on November 16, 2021, that resulted in Exelon Generation Company, LLC being renamed Constellation Energy Generation, LLC.

E. There is reasonable assurance: (i) that the activities authorized by this subsequent renewed operating license 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 set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.0 below);

F. Constellation Energy Generation, LLC is technically qualified to engage in the activities authorized by this subsequent renewed operating license in accordance with the rules and regulations of the Commission;

G. Constellation Energy Generation, LLC has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;

H. The issuance of this subsequent renewed operating license will not be inimical to the common defense and security or to the health and safety of the public;

I. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Subsequent Renewed Facility Operating License No. DPR-19 is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and

J. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this subsequent renewed operating license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.

2. On the basis of the foregoing findings regarding this facility, Facility Operating License No. DPR-19, issued February 20, 1991, is superseded by Subsequent Renewed Facility Operating License No. DPR-19, which is hereby issued to Constellation Energy Generation, LLC to read as follows:

A. This subsequent renewed operating license applies to the Dresden Nuclear Power Station, Unit 2, a boiling water reactor and associated equipment (the facility). The facility is located in Grundy County, Illinois, and is described in the licensee's Updated Final Safety Analysis Report, as supplemented and amended, and in the licensee's Environmental Report, as supplemented and amended.

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:

(1) Constellation Energy Generation, LLC, pursuant to Section 104b of the Act and 10 CFR Part 50, to possess, use, and operate the facility at the designated location in Grundy County, Illinois, in accordance with the procedures and limitations set forth in this subsequent renewed operating 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 materials 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) 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 special nuclear materials as may be produced by the operation of the facility.

C. This subsequent renewed operating 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; 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 steady state reactor core power levels not in excess of 2957 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. 285, are hereby incorporated into this subsequent renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Operation in the coastdown mode is permitted to 40% power.

(4) The valves in the equalizer piping between the recirculation loop shall be closed at all times during reactor operation.

(5) The licensee shall maintain the commitments made in response to the March 14, 1983, NUREG-0737 Order, subject to the following provision:

The licensee may make changes to commitments made in response to the March 14, 1983, NUREG-0737 Order without prior approval of the Commission as long as the change would be permitted without NRC approval, pursuant to the requirements of 10 CFR 50.59. Consistent with this regulation, if the change results in an Unreviewed Safety Question, a license amendment shall be submitted to the NRC staff for review and approval prior to implementation of the change.

(6) Surveillance Requirements

The Surveillance Requirements contained in Appendix A Technical Specifications and listed below are not required to be performed immediately upon implementation of Amendment No. 150:

a. Surveillance Requirement 4.1.A.2 - RPS Logic System Functional Test

b. Surveillance Requirement 4.2.A.2 - Primary & Secondary Containment Logic System Functional Test

c. Surveillance Requirement 4.2.J.2 - Feedwater Pump Trip Logic System Functional Test

d. Surveillance Requirement 4.6.F.1.b - Relief Valve Logic System Functional Test

e. Surveillance Requirement 4.9.A.9 - Simultaneous Diesel Generator Start

f. Surveillance Requirement 4.9.A.10 - Diesel Storage Tank Cleaning (Unit 3 and Unit 2/3 only)

Each of the above Surveillance Requirements shall be successfully demonstrated prior to entering into MODE 2 on the first plant startup following the fifteenth refueling outage (D2R15).

(7) Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 191, are hereby incorporated into this subsequent renewed operating license. The licensee shall operate the facility in accordance with the Additional Conditions.

(8) Deleted

(9) Deleted

(10) 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 affiliated 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.

(11) Deleted.

(12) Deleted.

(13) Deleted.

(14) The licensee shall relocate certain Technical Specification requirements to licensee-controlled documents upon implementation of the Amendment No. 185. The items and appropriate documents are as described in Table LA, "Removal of Details Matrix," and Table R, "Relocated Specifications," that are attached to the NRC's Safety Evaluation enclosed with Amendment No. 185.

(15) The schedule for performing Surveillance Requirements (SRs) that are new or revised in Amendment No. 185 shall be as follows:

For SRs that are new in this amendment, the first performance is due at the end of the first surveillance interval that begins on the date of implementation of Amendment No. 185.

For SRs that existed prior to this amendment whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of Amendment No. 185.

For SRs that existed prior to this amendment that have

modified acceptance criteria, the first performance is due at the end of the first surveillance interval that began on the date the surveillance was last performed prior to the implementation of Amendment No. 185.

For SRs that existed prior to this amendment whose intervals of performance are being extended, the first extended surveillance interval begins upon completion of the last surveillance performed prior to implementation of Amendment No. 185.

(16) Following implementation of Amendment No. 185, the reactor protection system trip setpoint for main steam isolation valve closure shall be maintained at the previous setpoint (less than or equal to 10% closed) until startup after the first outage of sufficient duration to change the setpoint.

(17) The license is amended to authorize changing the UFSAR to allow credit for containment overpressure as detailed below, to assure adequate Net Positive Suction Head is available for low pressure Emergency Core Cooling System pumps following a design-basis accident.

From (sec)	To (sec)	Credit (psig)
Accident start	290	9.5
290	5,000	4.8
5,000	30,000	6.6
30,000	40,000	6.0
40,000	45,500	5.4
45,500	52,500	4.9
52,500	60,500	4.4
60,500	70,000	3.8
70,000	84,000	3.2
84,000	104,000	2.5
104,000	136,000	1.8
136,000	Accident end	1.1

(18) Mitigation Strategy License Condition

Develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

(a) Fire fighting response strategy with the following elements:
1. Pre-defined coordinated fire response strategy and guidance
2. Assessment of mutual aid fire fighting assets
3. Designated staging areas for equipment and materials
4. Command and control
5. Training of response personnel

(b) Operations to mitigate fuel damage considering the following:
1. Protection and use of personnel assets

2. Communications
3. Minimizing fire spread
4. Procedures for implementing integrated fire response strategy
5. Identification of readily-available pre-staged equipment
6. Training on integrated fire response strategy
7. Spent fuel pool mitigation measures

(c) Actions to minimize release to include consideration of:
1. Water spray scrubbing
2. Dose to onsite responders

(19) The licensee shall implement and maintain all Actions required by Attachment 2 to NRC Order EA-06-137, issued June 20, 2006, except the last action that requires incorporation of the strategies into the site security plan, contingency plan, emergency plan and/or guard training and qualification plan, as appropriate.

(20) Upon implementation of Amendment No. 226 adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air inleakage as required by SR 3.7.4.4, in accordance with

TS 5.5.14.c.(i), the assessment of CRE habitability as required by Specification 5.5.14.c.(ii), and the measurement of CRE pressure as required by Specification 5.5.14.d, shall be considered met. Following implementation:

(a) The first performance of SR 3.7.4.4, in accordance with Specification 5.5.14.c.(i), shall be within the specified Frequency of 6 years, plus the 18-month allowance of SR 3.0.2, as measured from January 1997, the date of the most recent successful tracer gas test, as stated in the December 9, 2003 letter response to Generic Letter 2003-01, or within the next 18 months if the time period since the most recent successful tracer gas test is greater than 6 years.

(b) The first performance of the periodic assessment of CRE habitability, Specification 5.5.14.c.(ii), shall be within 3 years, plus the 9-month allowance of SR 3.0.2, as measured from January 1997, the date of the most recent successful tracer gas test, as stated in the December 9, 2003 letter response to Generic Letter 2003-01, or within the next 9 months if the time period since the most recent successful tracer gas test is greater than 3 years.

(c) The first performance of the periodic measurement of CRE pressure, Specification 5.5.14.d, shall be within 24 months, plus the 6 months allowed by SR 3.0.2, as measured from the date of the most recent successful pressure measurement test, or within 6 months if not performed previously.

(21) Upon implementation of Amendment No. 249 the licensee shall adhere to the following requirements as part of the DNPS unit 2 spent fuel pool coupon surveillance program to ensure that the B-10 areal density of the BORAL remains at or above its minimum credited value and that the regulatory requirement to maintain the Technical Specification value of $k_{eff} \leq 0.95$ continues to be met:

1. Ensure that coupon measurements of B-10 areal density are performed by a qualified laboratory;

2. Ensure that the coupons are removed for evaluation every 10 years;

3. Ensure that should any coupon be identified as failing the minimum certified B-10 areal density criterion based on coupon test results, the licensee will perform in-situ testing to confirm that the minimum B-10 areal density (0.02 g/cm^2) is met for the BORAL panels installed in the DNPS spent fuel pools; and,

4. Submit a report to the NRC within 90 days following the completion of evaluations associated with Item 3 above. The report shall include; a description of the testing results, the assessments performed, and the interim and long-term corrective actions for abnormal indications.

D. The facility has been granted certain exemptions from the requirements of Section III.G of Appendix R to 10 CFR Part 50, “Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979.” This section relates to fire protection features for ensuring the systems and associated circuits used to achieve and maintain safe shutdown are free of fire damage. These exemptions were granted and sent to the licensee in letters dated February 2, 1983, September 28, 1987, July 6, 1989, and August 15, 1989.

In addition, the facility has been granted certain exemptions from Sections II and III of Appendix J to 10 CFR Part 50, “Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors.” This section contains leakage test requirements, schedules and acceptance criteria for tests of the leak-tight integrity of the primary reactor containment and systems and components which penetrate the containment. These exemptions were granted and sent to the licensee in a letter dated June 25, 1982.

These exemptions granted pursuant to 10 CFR 50.12 are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. With these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

E. The licensee shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report for the facility and as approved in the Safety Evaluation Reports dated March 22, 1978 with supplements dated December 2, 1980, and February 12, 1981;

January 19, 1983; July 17, 1987; September 28, 1987; and January 5, 1989, 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.

F. The licensee 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 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 plans[1], which contain Safeguards Information protected under 10 CFR 73.21, is entitled: “Dresden Nuclear Power Station Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan, Revision 2,” 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. 238 as modified by License Amendment No. 246.

G. Deleted

H. The licensee shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

I. Updated Final Safety Analysis Report

The Updated Final Safety Analysis Report supplement, submitted pursuant

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

to 10 CFR 54.21(d), describes certain future activities to be completed prior to the period of extended operation. The licensee shall complete these activities no later than December 22, 2009, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

The Updated Final Safety Analysis Report supplement, as revised, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4) following issuance of this subsequent renewed license. Until that update is complete, the licensee may make changes to the programs and activities described in the supplement without prior Commission approval, provided that the licensee evaluates such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

J. All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of ASTM E 185-82 to the extent practicable for the configuration of the specimens in the capsule. Any changes to the capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion.

K. Adoption of Risk Informed Completion Times TSTF-505, Revision 2, "Provide Risk-Informed Extension Completion Times -RITSTF Initiative 4b"

Constellation is approved to implement TSTF-505, Revision 2, modifying the Technical Specifications requirements related to Completion Times (CTs) 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.

Constellation will complete the implementation items listed in Attachment 5 of Constellation Energy Generation, LLC letter to the NRC dated May 8, 2024, prior to implementation of the RICT Program for these systems. All issues identified in Attachment 5 will be addressed and any associated changes will be made, focused-scope peer reviews will be performed on changes that are PRA upgrades as defined in the PRA standard (ASME/ANS RA-Sa-2009, as endorsed by RG 1.200, Revision 3), and any findings will be resolved and reflected in the PRA of record prior to the implementation of the RICT Program

L. 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, seismic events; 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 external flooding and extreme winds and tornadoes; an external flood safe shutdown equipment list for external floods; and a high wind safe shutdown equipment list for extreme winds and tornadoes.

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 probabilistic risk assessment approach to seismic margins approach).

M. Subsequent License Renewal License Conditions

(1) The information in the Updated Final Safety Analysis Report Supplement submitted as required by 10 CFR 54.21(d), and revised during the application review process, and the licensee's commitments listed in Appendix A of the "Final Safety Evaluation to the Subsequent License Renewal of Dresden Nuclear Power Station, Units 2 and 3," dated September 9, 2025, are collectively the "Subsequent License Renewal Updated Final Safety Analysis Report Supplement." This supplement is henceforth part of the Updated Final Safety Analysis Report which will be updated in accordance with 10 CFR 50.71(e).

As such, the licensee may make changes to the programs, activities, and commitments described in the Subsequent License Renewal Updated Final Safety Analysis Report Supplement, provided the licensee evaluates such changes pursuant to 10 CFR 50.59, "Changes, Tests and Experiments," and otherwise complies with the requirements in that section.

(2) This Subsequent License Renewal Final Safety Analysis Report Supplement, as defined in subsequent renewed license condition (1) above, describes programs to be implemented and activities to be completed before the subsequent period of extended operation, which is the period following the December 22, 2029, expiration of the initial renewed license.

a. The licensee shall implement those new programs and enhancements to existing programs no later than the date 6 months before the subsequent period of extended operation.

b. The licensee shall complete those activities by the date 6 months 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.

c. The licensee shall notify the NRC in writing within 30 days after having accomplished item (2)a above and include the status of those activities that have been or remain to be completed in item (2)b above.

d. The programs and commitments described in the Subsequent License Renewal Final Safety Analysis Report Supplement shall continue in effect during the subsequent period of extended operation, to the extent set forth therein, unless modified in accordance with the process set forth in 10 CFR 50.59.

3. This subsequent renewed operating license is effective as of the date of issuance and shall expire at midnight on December 22, 2049.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Jeremy R. Groom, Acting Director
Office of Nuclear Reactor Regulation

Attachments:
1. Appendix A – Technical Specifications
2. Appendix B – Additional Conditions

Date of Issuance: December 16, 2025