



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

CONSTELLATION ENERGY GENERATION, LLC

DOCKET NO. 50-374

LASALLE COUNTY STATION, UNIT 2

RENEWED FACILITY OPERATING LICENSE

Renewed License No. NPF-18

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
  - A. The application for a renewed license filed by the applicant\* complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 LaSalle County Station, Unit 1 (the facility), has been substantially completed in conformity with Construction Permit No. CPPR-100 and the application, as amended, the provisions of the Act, and the regulations of the Commission;
  - C. 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);
  - D. There is reasonable assurance: (i) that the activities authorized by this 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;
  - E. Constellation Energy Generation, LLC is technically qualified to engage in the activities authorized by this renewed license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
  - F. 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;

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\*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.

- G. The issuance of this renewed license will not be inimical to the common defense and security or to the health and safety of the public;
  - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Renewed Facility Operating License No. NPF-18, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied;
  - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this renewed license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70; and
  - J. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the 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 renewed license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations.
2. Based on the foregoing findings regarding this facility, Renewed Facility Operating License NPF-18 is hereby issued to Constellation Energy Generation, LLC (the licensee) to read as follows:
- A. This renewed license applies to the LaSalle County Station, Unit 2, a boiling water nuclear reactor and associated equipment, owned by the licensee. The facility is located in Brookfield Township, LaSalle County, Illinois, and is described in the licensee's "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 Constellation Energy Generation, LLC:
    - (1) Pursuant to Section 103 of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility at the designated location in Brookfield Township, LaSalle County, Illinois, in accordance with the procedures and limitations set forth in this renewed license;

- (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) Maximum Power Level

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. 243  
12/28/22

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 243, 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. 181  
08/28/09

(3) DELETED

Am. 181  
08/28/09

(4) DELETED

Am. 181  
08/28/09

(5) DELETED

Am. 181  
08/28/09

(6) DELETED

Am. 181  
08/28/09

(7) DELETED

Am. 181  
08/28/09

(8) DELETED

Am. 181  
08/28/09

(9) DELETED

(10) DELETED

(11) DELETED

(12) DELETED

(13) DELETED

(14) DELETED

Am. 112  
06/10/98

(15) Fire Protection Program

The licensee shall implement and maintain all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for LaSalle County Station, and as approved in NUREG-0519, "Safety Evaluation Report related to the operation of LaSalle County Station, Units 1 and 2," dated March 1981; Supplement 2 dated February 1982; Supplement 3 dated April 1982; Supplement 5 dated August 1983; Supplement 7 dated December 1983; Supplement 8 dated March 1984; and SERs for the following:

LaSalle Unit 2 License Amendment 11, dated May 22, 1985;  
LaSalle Unit 2 License Amendment 14, dated October 2, 1985;  
LaSalle Unit 2 License Amendment 112, dated June 10, 1998; and  
NRC Evaluation of the Consequences of Postulated Failures of 1 Hour  
Fire Rated Darmatt KM-1 Fire Barrier under Seismic Loading at LaSalle  
County Station, dated March 29, 1996.

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.

(16) Industrial Security (Section 13.6, SER, SSER #3, SSER #5)

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 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<sup>1</sup>, which contain Safeguards  
Information protected under 10 CFR 73.21, is entitled: "LaSalle County  
Station Security Plan, Training and Qualification Plan, and Safeguards  
Contingency Plan, Revision 5," 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. 190 and modified by License Amendment No. 202.

(17) DELETED

(18) DELETED

(19) DELETED

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<sup>1</sup> The Training and Qualification Plan and Safeguards Contingency Plan are appendices to the Security Plan.

(20) DELETED

Am. 133  
03/30/01

(21) Deleted.

(22) 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.

Am. 229  
04/06/20

(23) Deleted.

Am. 229  
04/06/20

(24) Deleted.

Am. 229  
04/06/20

(25) Deleted.

(26) DELETED

(27) DELETED

Letter dated  
08/09/07

(28) 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 coordination 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 or 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

Am. 173  
10/31/07

- (29) Upon implementation of Amendment No. 173 adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air leakage as required by SR 3.7.4.5, in accordance with TS 5.5.15.c.(i), the assessment of CRE habitability as required by Specification 5.5.15.c.(ii), and the measurement of CRE pressure as required by Specification 5.5.15.d, shall be considered met. Following implementation:
  - (a) The first performance of SR 3.7.4.5, in accordance with Specification 5.5.15.c.(i), shall be within the specified Frequency of 6 years, plus the 18-month allowance of SR 3.0.2, as measured from 1998, 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 5.5.15.c.(ii), shall be within 3 years, plus the 9-month allowance of SR 3.0.2, as measured from 1998, 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 5.5.15.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.

Am. 194  
10/31/13

(30) DELETED

Am. 194  
10/31/13

(31) DELETED

Am. 194  
10/31/13

(32) DELETED



Am. 186  
01/28/11

- (33) The methodology in AREVA NP Inc Report No. ANP-2843(P), "LaSalle Unit 2 Nuclear Power Station Spent Fuel Storage Pool Criticality Safety Analysis with Neutron Absorbing Inserts and Without Boraflex," Revision 1, dated August 2009, as corrected by Attachment 3 to a letter dated June 10, 2010 from P. Simpson to the NRC, shall be used to perform required criticality calculations associated with the storage cells containing NETCO-SNAP-IN® inserts.

Am. 192  
02/27/13

- (34) Use of Global Nuclear Fuel – Americas, LLC, Report, NEDC-33106P, "GEXL97 Correlation for Atrium-10 Fuel," Revision 4, August 2012, for LaSalle Unit 2 shall be limited to the same range of applicability for calculations of Safety Limit Minimum Critical Power Ratios as documented in NRC letter from W.A. Macon, Jr. (NRC) to J. L. Skolds, "LaSalle County Station, Units 1 and 2 – Correction to Issuance of Amendments (TAC Nos. MB9888 and MB9889)," dated January 14, 2004 (ADAMS Accession Number ML040130278).

- (35) License Renewal License Conditions

- (a) The information in the UFSAR supplement, submitted pursuant to 10 CFR 54.21(d), as revised during the license renewal application review process, and licensee commitments as listed in Appendix A of the "Safety Evaluation Report Related to the License Renewal of LaSalle County Station, Units 1 and 2," are collectively the "License Renewal UFSAR Supplement." This Supplement is henceforth part of the UFSAR, 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 this 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 License Renewal UFSAR Supplement, as defined in license condition 35(a) above, describes certain programs to be implemented and activities to be completed prior to the period of extended operation (PEO).
  - 1. The licensee shall implement those new programs and enhancements to existing programs no later than 6 months prior to the PEO.
  - 2. The licensee shall complete those activities by the 6-month date prior to PEO or the end of the last refueling outage prior to the PEO, whichever occurs later.

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.

The licensee will complete the implementation items listed in Table APLA-01.2 in Attachment 1 of EGC letter to NRC dated October 29, 2020, prior to implementation of 10 CFR 50.69 program. All issues identified 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 2), and any findings will be resolved and reflected in the PRA of record prior to implementation of the 10 CFR 50.69 categorization process.

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.

The licensee will complete the implementation item listed in Attachment 5 of Exelon letter to the NRC dated January 31, 2020, prior to implementation of the RICT Program. All issues identified in the attachment 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 2), and any findings will be resolved and reflected in the PRA of record prior to implementation of the RICT Program.

- Am. 87  
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 to 10 CFR Part 50, and to 10 CFR Part 73 are described in the Safety Evaluation Report and Supplement Numbers 1, 2, 3, and 5 to the Safety Evaluation Report.
  - (b) DELETED
  - (c) DELETED
  - (d) DELETED
  - (e) An exemption was granted to remove the Main Steam Isolation Valves (MSIVs) from the acceptance criteria for the combined local leak rate test (Type B and C), as defined in the regulations of 10 CFR Part 50, Appendix J, Option B, Paragraph III.B. Exemption (e) is described in the safety evaluation accompanying Amendment No. 97 to this License.

These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. Therefore, these exemptions are hereby granted. The facility will operate, to the extent authorized herein, in conformity with the application, as amended, and the rules and regulations of the Commission (except as hereinafter exempted therefrom), and the provisions of the Act.

- E. Before engaging in additional construction or operational activities which may result in a significant adverse environmental impact that was not evaluated or that is significantly greater than that evaluated in the Final Environmental Statement and its Addendum dated November 1978, and the Final Supplemental Environmental Impact Statement dated September 2016, the licensee shall provide a written notification to the Director of the Office of Nuclear Reactor Regulation and receive written approval from that office before proceeding with such activities.

Am. 164  
06/14/06

F. Deleted

Am. 164  
06/14/06

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. This renewed license is effective as of the date of issuance and shall expire at Midnight on December 16, 2043.

FOR THE NUCLEAR REGULATORY COMMISSION

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WILLIAM M. DEAN, DIRECTOR  
OFFICE OF NUCLEAR REACTOR REGULATION

Attachments:

1. DELETED
2. DELETED
3. Appendix A – Technical Specifications (NUREG-1013)
4. Appendix B – Environmental Protection Plan

Date of Issuance: October 19, 2016

## Appendix A: Technical Specifications

LaSalle 2 uses the same Appendix A as LaSalle 1. Please refer to LaSalle 1 for Appendix A (ML052990324).

## Appendix B: Environmental Protection Plan

LaSalle 2 uses the same Appendix B as LaSalle 1. Please refer to LaSalle 1 for Appendix B (ML052990324).