



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

March 31, 2017

Mr. Bryan C. Hanson
Senior Vice President
Exelon Generation Company, LLC
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT – ISSUANCE OF AMENDMENT RE: APPLICATION FOR ORDER TO TRANSFER RENEWED FACILITY OPERATING LICENSE, INDEPENDENT SPENT FUEL STORAGE INSTALLATION GENERAL LICENSE, AND CONFORMING AMENDMENT FROM ENTERGY NUCLEAR FITZPATRICK, LLC. AND ENTERGY NUCLEAR OPERATIONS, INC., TO EXELON GENERATION COMPANY, LLC (CAC NO. MF8293)

Dear Mr. Hanson:

By order dated March 1, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17041A196), the U.S. Nuclear Regulatory Commission (NRC or the Commission) approved the transfer of the James A. FitzPatrick Nuclear Power Plant (FitzPatrick) Renewed Facility Operating License No. DPR-59 and the generally licensed FitzPatrick Independent Spent Fuel Storage Installation from Entergy Nuclear FitzPatrick, LLC and Entergy Nuclear Operations, Inc. (collectively referred to as Entergy) to Exelon Generation Company, LLC (Exelon). In order to facilitate this transfer, Entergy requested NRC approval of the proposed license amendment in its application dated August 18, 2016, as supplemented by letter dated November 29, 2016 (ADAMS Accession Nos. ML16235A081 and ML16335A104, respectively). The amendment modifies FitzPatrick's Renewed Facility Operating License to reflect this transfer.

Accordingly, the Commission has issued the enclosed Amendment No. 314 to Renewed Facility Operating License No. DPR-59 for FitzPatrick.

B. Hanson

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A copy of the related Safety Evaluation was enclosed with the letter dated March 1, 2017. A Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to read 'DLR', with a long horizontal flourish extending to the right.

Diane L. Render, Ph.D.
Project Manager
Plant Licensing Branch I
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-333

Enclosure:
Amendment No. 314 to DPR-59

cc: Listserv

Mr. Christopher H. Mudrick
Chief Operating Officer
Constellation Exelon Nuclear Group
Senior Vice President
Northeast Operations
Exelon Generation Company, LLC
200 Exelon Way, KSA-3N
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
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EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-333

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 314
License No. DPR-59

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Entergy Nuclear FitzPatrick, LLC, Entergy Nuclear Operations, Inc. and Exelon Generation Company, LLC (collectively, the applicants), dated August 18, 2016, as supplemented by letter dated November 29, 2016, 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.

Enclosure

2. Accordingly, the license is amended by changes as indicated in the attachment to this license amendment.
3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read 'W M Dean', with a long horizontal flourish extending to the right.

William M. Dean, Director
Office of Nuclear Reactor Regulation

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

Date of Issuance: March 31, 2017

JAMES A. FITZPATRICK NUCLEAR POWER PLANT
ATTACHMENT TO LICENSE AMENDMENT NO. 314
RENEWED FACILITY OPERATING LICENSE NO. DPR-59
DOCKET NO. 50-333

Replace the following pages of the renewed facility operating license with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

<u>Remove Page</u>	<u>Insert Page</u>
1	1
2	2
3	3
4	4
5	5
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7	7
8	8
9	9

Replace the following pages of Appendix C to the renewed facility operating license with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

<u>Remove Page</u>	<u>Insert Page</u>
1	1
2	2

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-333

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

RENEWED FACILITY OPERATING LICENSE

Renewed License No. DPR-59

1. The Nuclear Regulatory Commission (NRC or the Commission), having previously made the findings set forth in Facility Operating License No. DPR-59, dated November 21, 2000, has found that:
 - A. The application to renew Facility Operating License No. DPR-59 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. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. Actions have been identified and have been or will be taken with respect to: (1) managing the effects of aging on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1) during the period of extended operation, 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 operating 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;
 - 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;
 - E. Exelon Generation Company is financially and technically qualified to engage in the activities authorized by this renewed operating license;
 - F. Exelon Generation Company has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this renewed operating license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this renewed operating license will be in accordance

with the Commission's regulations; in 10 CFR Parts 30, 40, and 70, including 10 CFR Sections 30.33, 40.32, 70.23, and 70.31; and

- I. The issuance of this renewed operating license is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, Facility Operating License No. DPR-59 (previously issued to the Power Authority of the State of New York and Niagara Mohawk Power Corporation pursuant to the Atomic Safety and Licensing Board's Initial Decision and Supplemental Initial Decision dated November 12, 1973, and January 10, 1974, respectively; and the Atomic Safety and Licensing Appeal Board's Decision dated January 29, 1974) as previously amended and transferred to Entergy Nuclear FitzPatrick, LLC (ENF) and Entergy Nuclear Operations, Inc. (ENO) dated November 21, 2000, is superseded by Renewed Facility Operating License No. DPR-59, hereby issued to Exelon Generation Company to read as follows:
 - A. This renewed operating license applies to the James A. FitzPatrick Nuclear Power Plant, a boiling water nuclear reactor and associated equipment (the facility), owned and operated by Exelon Generation Company. The facility is located in Scriba, Oswego County, New York, and is described in the "Final Safety Analysis Report," as supplemented and amended, and the Environmental Report, as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," Exelon Generation Company to possess, use, and operate the facility at the designated location in Scriba, Oswego County, New York, in accordance with the procedures and limitations set forth in this renewed operating license;
 - (2) Exelon Generation Company 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) Exelon Generation Company 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) Exelon Generation Company 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) 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) Maximum Power Level

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

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 314, are hereby incorporated in the renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Fire Protection

Exelon Generation Company shall implement and maintain in effect all provisions of the approved fire protections program as described in the Final Safety Analysis Report for the facility and as approved in the SER dated November 20, 1972; the SER Supplement No. 1 dated February 1, 1973; the SER Supplement No. 2 dated October 4, 1974; the SER dated August 1, 1979; the SER Supplement dated October 3, 1980; the SER Supplement dated February 13, 1981; the NRC Letter dated February 24, 1981; Technical Specification Amendments 34 (dated January 31, 1978), 80 (dated May 22, 1984), 134 (dated July 19, 1989), 135 (dated September 5, 1989), 142 (dated October 23, 1989), 164 (dated August 10, 1990), 176 (dated January 16, 1992), 177 (dated February 10, 1992), 186 (dated February 19, 1993), 190 (dated June 29, 1993), 191 (dated July 7, 1993), 206 (dated February 28, 1994), and 214 (dated June 27, 1994); and NRC Exemptions and associated safety evaluations dated April 26, 1983, July 1, 1983, January 11, 1985,

April 30, 1986, September 15, 1986, and September 10, 1992, subject to the following provision:

Exelon Generation Company 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.

(4) Systems Integrity
Deleted by Amendment No. 274

(5) Iodine Monitoring
Deleted by Amendment No. 274

(6) New or Revised ITS Surveillance Requirements Applicability:

The schedule for performing Surveillance Requirements (SRs) that are new or revised in Amendment No. 274 shall be as follows:

- (a) 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 this amendment.
- (b) 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 this amendment.
- (c) 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 this amendment.
- (d) 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 this amendment.

D. Physical Protection

Exelon Generation Company 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 to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans¹,

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

which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "James A. FitzPatrick Nuclear Power Plant Physical Security, Training & Qualification and Safeguards Contingency Plan, Revision 0," submitted by letter dated October 26, 2004, as supplemented by letter dated May 17, 2006.

Exelon Generation Company 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). Exelon Generation Company CSP was approved by License Amendment No. 300, as supplemented by changes approved by License Amendment Nos. 303, 308, and 311.

Exelon Generation Company has been granted Commission authorization to use "stand alone preemption authority" under Section 161A of the Atomic Energy Act, 42 U.S.C. 2201a with respect to the weapons described in Attachment 1, Section II contained in its application submitted by letter dated August 30, 2013, as supplemented by letters dated November 12, 2013, and July 11, 2014. Exelon Generation Company shall fully implement and maintain in effect the provisions of the Commission-approved authorization.

E. Power Uprate License Amendment Implementation

The licensee shall complete the following actions as a condition of the approval of the power uprate license amendment.

(1) Recirculation Pump Motor Vibration

Perform monitoring of recirculation pump motor vibration during initial Cycle 13 power ascension for uprated power conditions.

(2) Startup Test Program

The licensee will follow a startup testing program, during Cycle 13 power ascension, as described in GE Licensing Topical Report NEDC-31897P-1, "Generic Guidelines for General Electric Boiling Water Reactor Power Uprate." The startup test program includes system testing of such process control systems as the feedwater flow and main steam pressure control systems. The licensee will collect steady-state operational data during various portions of the power ascension to the higher licensed power level so that predicted equipment performance characteristics can be verified. The licensee will do the startup testing program in accordance with its procedures. The licensee's approach is in conformance with the test guidelines of GE Licensing Topical Report NEDC-31897P-1, "Generic Guidelines for General Electric Boiling Water Reactor Power Uprate," June 1991 (proprietary), GE Licensing Topical Report NEDO-31897, "Generic Guidelines for General Electric Boiling Water Reactor Power Uprate," February 1992 (nonproprietary), and NEDC-31897P-AA, Class III (proprietary), May 1992.

(3) Human Factors

The licensee will review the results of the Cycle 13 startup test program to determine any potential effects on operator training. Training issues identified will be incorporated in Licensed Operator training during 1997. Simulator discrepancies identified will be addressed in accordance with simulator Configuration Management procedural requirements.

F. Additional Conditions

The Additional Conditions contained in Appendix C, as revised through Amendment No. 289, are hereby incorporated into this renewed operating license. Exelon Generation Company shall operate the facility in accordance with the Additional Conditions.

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P. For purposes of ensuring public health and safety, Exelon Generation Company, upon the transfer of this license to it, and upon transfer of decommissioning funds from ENF to Exelon Generation Company, shall provide decommissioning funding assurance for the facility, to be held in a decommissioning trust fund for the facility by the prepayment or equivalent method, of no less than the amount required under NRC regulations at 10 CFR 50.75. Any amount held in any decommissioning trust maintained by Exelon Generation Company for the facility after the transfer of the facility license to Exelon Generation Company may be credited towards the amount required under this paragraph.

Q. Exelon Generation Company shall take all necessary steps to ensure that the decommissioning trust is maintained in accordance with the application for the transfer of this license to Exelon Generation Company, and the requirements of the order approving the transfer and order approving the transfer of decommissioning funds from PASNY to ENO, and consistent with the safety evaluations supporting such orders.

R. 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

- S. 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.
- T. License Renewal – UFSAR supplement submitted pursuant to 10 CFR 54.21(d), as revised during the license renewal application review process, and as supplemented by Appendix A of NUREG-1905, "Safety Evaluation Report Related to the License Renewal of James A. FitzPatrick Nuclear Power Plant," dated April 2008, describes certain programs to be implemented and activities to be completed prior to the period of extended operation (PEO).
- a. The licensee shall implement those new programs and enhancements to existing programs no later than the PEO date.
 - b. The licensee shall complete those inspection and testing activities by the PEO date.

The licensee shall notify the NRC in writing within 10 days after having accomplished item (a) above and include the status of those activities that have been or remain to be completed in item (b) above.

- U. UFSAR Supplement Changes - The UFSAR supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the UFSAR required by the 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, Exelon Generation Company may make changes to the programs and activities described in the supplement without prior Commission approval, provided that Exelon Generation Company evaluate such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.
- V. Capsule withdrawal schedule - All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of the most recent NRC-approved version of the Boiling Water Reactor Vessel and Internals Project (BWRVIP) Integrated Surveillance Program (ISP) appropriate 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. Any changes to storage requirements must be approved by the NRC, as required by 10 CFR Part 50, Appendix H.

3. This renewed operating license is effective as of the date of issuance and shall expire at midnight on October 17, 2034.

FOR THE NUCLEAR REGULATORY COMMISSION

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Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:

1. Appendix A - Technical Specifications
2. Appendix B - Deleted
3. Appendix C - Additional Conditions

Date of Issuance: September 8, 2008

APPENDIX C
ADDITIONAL CONDITIONS
OPERATING LICENSE NO. DPR-59

Amendment Number	Additional Conditions
243	Exelon Generation Company shall describe snubber operation and surveillance requirements in the Final Safety Analysis Report such that future changes to those requirements will be subject to the provisions of 10 CFR 50.59.
250	Exelon Generation Company shall relocate operability and surveillance requirements for logic bus power monitors, core spray sparger differential pressure, and low pressure coolant injection cross-connect valve position instruments to an Exelon-controlled document where future changes to those relocated requirements are controlled under the provisions of 10 CFR 50.59.
274	Exelon Generation Company shall relocate the Technical Specification requirements identified in Table LA – “Removal of Details Matrix” and Table R – “Relocated Specifications” to licensee-controlled documents, as described in the application, as supplemented on June 12, 2002, and the NRC staff’s Safety Evaluation enclosed with Amendment No. 274, dated July 3, 2002. Further, relocations to the updated Final Safety Analysis Report (UFSAR) shall be reflected in the next UFSAR update required by 10 CFR 50.71(e) following implementation of this amendment.
289	<p>Control Room Envelope Habitability</p> <p>Upon Implementation of Amendment No. 289, adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air inleakage required by SR 3.7.3.3 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:</p> <p>(a) The first performance of SR 3.7.3.3 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 June 28, 2004, the date of the most recent successful tracer gas test, as stated in the licensee’s letter, “NRC Generic Letter 2003-01 Control Room Habitability Initial Action Summary Report” (JAFP-04-0159), dated September 27, 2004, or within 18 months if the time period since the most recent successful tracer gas test is greater than 6 years.</p>

Appendix C

- 2 -

(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 June 28, 2004, the date of the most recent successful tracer gas test, as stated in the licensee's letter, "NRC Generic Letter 2003-01 Control Room Habitability Initial Action Summary Report" (JAFP-04-0159), dated September 27, 2004, or within 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 18 months, plus the 138-day allowance of SR 3.0.2 as measured from the date of the most recent successful pressure measurement test or within 138 days if not performed previously.

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