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

August 4, 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 RELIEF REQUEST NO. RR-001 – ALTERNATIVE TO CERTAIN REQUIREMENTS OF THE ASME CODE FOR EXTENSION OF THE FOURTH 10-YEAR INSERVICE TESTING INTERVAL (CAC NO. MF9819)

Dear Mr. Hanson:

By letter dated June 7, 2017 (Agencywide Documents Access and Management System Accession No. ML17158B295), Exelon Generation Company, LLC (the licensee) submitted an alternative to the requirements of the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code) associated with extending the fourth 10-year inservice testing (IST) interval at the James A. FitzPatrick Nuclear Power Plant (FitzPatrick).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(z)(2), the licensee requested to use the proposed alternative in Relief Request No. RR-001 (RR-001) on the basis that the ASME OM Code requirements present an undue hardship, without a compensating increase in the level of quality and safety. The licensee is requesting an 8-month extension of the fourth 10-year IST interval. The end date of the fourth interval would be extended from September 30, 2017, to May 31, 2018.

The U.S. Nuclear Regulatory Commission (NRC) staff has determined that for RR-001 for FitzPatrick, the proposed alternative provides reasonable assurance that the affected components are operationally ready. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(z)(2) for RR-001. Therefore, the NRC staff authorizes the use of the alternative in RR-001 for FitzPatrick for the fourth 10-year IST program interval, which began on October 1, 2007, and is scheduled to end on May 31, 2018.

All other ASME OM Code requirements for which relief was not specifically requested and approved in this proposed alternative, RR-001, remain in effect.

If you have any questions, please contact the Project Manager, Booma Venkataraman, at 301-415-2934 or Booma.Venkataraman@nrc.gov.

Sincerely,

James G. Danna, Chief
Plant Licensing Branch I
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-333

Enclosure:
Safety Evaluation

cc w/encl: Distribution via Listserv

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELIEF REQUEST NO. RR-001 FOR ALTERNATIVE TO

FOURTH 10-YEAR INTERVAL INSERVICE TESTING PROGRAM

EXELON GENERATION COMPANY, LLC

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

DOCKET NO. 50-333

1.0 INTRODUCTION

By letter dated June 7, 2017 (Agencywide Documents Access and Management System Accession No. ML17158B295), Exelon Generation Company, LLC (the licensee) submitted an alternative to the requirements of the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code), associated with extending the fourth 10-year inservice testing (IST) interval at James A FitzPatrick Nuclear Power Plant (FitzPatrick).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(z)(2), the licensee requested to use the proposed alternative in Relief Request No. RR-001 (RR-001) on the basis that the ASME OM Code requirements present an undue hardship, without a compensating increase in the level of quality or safety.

2.0 REGULATORY REQUIREMENTS

Section 50.55a(f) of 10 CFR states that IST of certain ASME Code Class 1, 2, and 3 pumps and valves be performed in accordance with the specified ASME OM Code and applicable addenda incorporated by reference in the regulations.

Section 50.55a(z) of 10 CFR states that alternatives to the requirements of paragraph (f) of 10 CFR 50.55a may be used when authorized by the U.S. Nuclear Regulatory Commission (NRC or the Commission) if the licensee demonstrates (1) the proposed alternatives would provide an acceptable level of quality and safety or (2) compliance with the specified requirements would result in hardship or unusual difficulty, without a compensating increase in the level of quality and safety.

Based on the above, and subject to the following technical evaluation, the NRC staff finds that regulatory authority exists for the licensee to request, and the Commission to authorize, the alternative requested by the licensee.

3.0 TECHNICAL EVALUATION

3.1 ASME OM Code Components Affected

The licensee has requested to use the proposed alternative described below for all IST components.

3.2 ASME OM Code Requirements

The applicable ASME OM Code edition and addenda for the FitzPatrick fourth 10-year IST program interval is the 2001 Edition through the 2003 Addenda.

3.3 Licensee's Reason for Request

FitzPatrick, which was operated by Entergy Operations, Inc. (Entergy), was expected to shut down prior to the start of the fifth 10-year IST interval and be decommissioned. Therefore, no IST program was developed for the fifth 10-year IST interval, which is scheduled to begin on October 1, 2017. The licensee purchased FitzPatrick in April 2017. This allowed approximately 6 months to prepare for the fifth 10-year IST interval, develop a new IST program, and submit any necessary relief and alternative requests for NRC review and approval. Entergy had previously made two extensions of past IST intervals totaling 1 year, which is the maximum extension time allowed by the ASME OM Code. The FitzPatrick fourth 10-year IST program interval began on October 1, 2007, and is scheduled to end on September 30, 2017.

3.4 Licensee's Proposed Alternative

The licensee requested an alternative to the IST interval duration requirement of the ASME OM Code.

ISTA-3120, "Inservice Test Interval," paragraph (c), states, in part:

> The inservice test intervals shall comply with the following, except as modified by ISTA-3120(d) and ISTA-3120(e): ...
>
> (2) *Successive Test Intervals:* 10 years following the previous test intervals.

The licensee is requesting an 8-month extension of the fourth 10-year IST interval in order to prepare for the fifth 10-year IST interval, develop a new IST program that is applicable to the latest edition of the ASME OM Code, and submit any applicable relief requests to the NRC to review and approve. The end date for the fourth interval would be extended from September 30, 2017, to May 31, 2018.

The requested 8-month extension will be recovered by ending the fifth 10-year IST interval on September 30, 2027. The fifth interval will start on June 1, 2018, if the fourth interval is extended 8 months.

All the alternatives and relief requests that were approved by the NRC for the fourth 10-year IST interval (see Table 1) will be extended until May 31, 2018, the proposed end date of the interval. The licensee will comply with the requirements specified in the ASME OM Code, 2001 Edition through the 2003 Addenda, and the approved alternatives and relief requests listed in Table 1.

Table 1
Alternatives and Relief Requests Approved for the Fourth 10-Year IST Interval

Request No.	Description
VRR-01	Withdrawn
VRR-02	Traversing In-Core Probe Containment Isolation Valve Stroke Time
VRR-03	Excess Flow Check Valve Exercise Testing During Refueling Outages
VRR-04	High Pressure Coolant Injection Check Valve Online Testing
VRR-05	Power-Operated System Control Valves With Safety Function
VRR-06	Safety Relief Valve Testing Interval
VRR-07	Pressure Isolation Valve Testing at Appendix J Frequency
VRR-08	Solenoid Operated Valve Position Indication Testing At Appendix J Frequency
PRR-01	Withdrawn
PRR-02	Core Spray Pump Suction Pressure Gauge Range
PRR-03	Emergency Service Water Pumps Use Of A Pump Curve
PRR-04	Residual Heat Removal Service Water And Emergency Service Water Smooth Running Pumps
PRR-05	Residual Heat Removal Pump Vibration Alert Range

3.5 NRC Staff Evaluation of the Alternative

An IST program was not developed for the fifth 10-year IST interval for FitzPatrick because Entergy, the owner at the time, was planning to shut down and decommission the plant. However, the licensee bought the plant in April 2017. With the fifth 10-year IST interval scheduled to begin on October 1, 2017, the licensee has approximately 6 months to develop a new IST program that is applicable to the latest edition of the ASME OM Code, 2004 Edition through the 2006 Addenda, and submit any applicable alternatives and relief requests to the NRC for review and approval. A time period of 6 months is not enough to perform these tasks. The typical turnaround time on alternatives and relief requests submitted to the NRC is 1 year. The NRC staff considers it a hardship for the licensee to perform these tasks in 6 months.

The licensee proposed to extend the current fourth 10-year IST interval by approximately 6 months, to May 31, 2018, in order to make the necessary preparations for the fifth 10-year IST interval. The fifth interval would end on September 30, 2027, which would recover the 8-month extension of the fourth 10-year IST interval. Because Entergy previously extended the Fitzpatrick IST interval for a total of 12 months, which is the maximum extension allowed by the ASME OM Code, the end date of the fifth 10-year IST interval will keep the future IST intervals a year off the initial schedule. The currently NRC-approved alternatives and relief requests for the fourth interval will be in effect until the end of the extended fourth interval. The extended fourth 10-year IST interval will not affect the testing of the IST components. Given that there are no substantial differences in the IST requirements of the licensee's current Code of Record for the fourth 10-year IST interval and the Code of Record that will be adopted in the fifth 10-year IST interval, the NRC staff finds that there will be no significant difference in the quality or safety as a result of the proposed extension.

4.0 CONCLUSION

As set forth above, the NRC staff determined that for the alternative in RR-001 for FitzPatrick, the proposed alternative provides reasonable assurance that the affected components are operationally ready. Accordingly, the NRC staff concludes that the licensee has adequately

addressed all of the regulatory requirements set forth in 10 CFR 50.55a(z)(2) for RR-001. Therefore, the NRC staff authorizes the use of the alternative in RR-001 for FitzPatrick for the fourth 10-year IST program interval, which began on October 1, 2007, and is scheduled to end on May 31, 2018.

All other ASME OM Code requirements for which relief was not specifically requested and approved in this proposed alternative, RR-001, remain in effect.

Principal Contributor: Robert Wolfgang

Date: August 4, 2017

SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT – ALTERNATIVE TO THE REQUIREMENTS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS CODE FOR OPERATION AND MAINTENANCE OF NUCLEAR POWER PLANTS (CAC NO. MF9819) DATED AUGUST 4, 2017

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