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

May 30, 2019

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: CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2 – USE OF A PROVISION IN A LATER EDITION OF THE ASME CODE (EPID L-2019-LLR-0008)

Dear Mr. Hanson:

By letter dated January 24, 2019 (Agencywide Documents Access and Management System Accession No. ML19024A322), Exelon Generation Company, LLC (Exelon, the licensee) submitted a request to the U.S. Nuclear Regulatory Commission (NRC) for the use of provisions of a later edition of the American Society of Mechanical Engineers Boiler & Pressure Vessel Code (ASME Code), Section XI requirements at the Calvert Cliffs Nuclear Power Plant, Units 1 and 2 (Calvert Cliffs).

Pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(4)(iv), the licensee requested to use later ASME Code editions and addenda for inservice inspection items, subject to the limitations and modifications listed in 10 CFR 50.55a(b). Specifically, Exelon requested to replace the 2004 Edition examination requirements for Category B-L-1 for Class 1 and Category C-G for Class 2 with the 2013 Edition examination requirements.

The NRC staff determines, as set forth in the enclosed safety evaluation, that the use of the requirements of the 2013 Edition of the ASME Code, Section XI, is acceptable. Accordingly, the NRC staff concludes that the licensee adequately addressed all the regulatory requirements set forth in 10 CFR 50.55a(g)(4)(iv). Therefore, the NRC staff approves the use of the 2013 Edition of the ASME Code, Section XI, for Examination Categories B-L-1 and B-M-1 for Class 1 and Category C-G for Class 2 at Calvert Cliffs for the remainder of the current fourth 10-year inservice inspection interval, which started on October 10, 2009, and is currently scheduled to end on June 30, 2019.

All other ASME Code, Sections XI requirements for which the request was not specified remain applicable, including a third-party review by the Authorized Nuclear Inservice Inspector.

If you have any questions, please contact the Calvert Cliffs Project Manager, Michael L. Marshall, Jr., at (301) 415-2871 or Michael.Marshall@nrc.gov.

Sincerely,

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

Docket Nos. 50-317 and 50-318

Enclosure:
Safety Evaluation

cc: Listserv

UNITED STATES
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST FOR USE OF A PROVISION IN A LATER EDITION OF THE ASME CODE

EXELON GENERATION COMPANY, LLC

CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2

DOCKET NOS. 50-317 AND 50-318

1.0 INTRODUCTION

By letter dated January 24, 2019 (submittal) (Agencywide Documents Access and Management System Accession No. ML18354A431), Exelon Generation Company, LLC (Exelon, the licensee) submitted a request to the U.S. Nuclear Regulatory Commission (NRC or the Commission) for the use of provisions of a later edition of the American Society of Mechanical Engineers Boiler & Pressure Vessel Code (ASME Code), Section XI requirements at Calvert Cliffs Nuclear Power Plant, Units 1 and 2 (Calvert Cliffs).

Pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(4)(iv), the licensee requested to use later ASME Code editions and addenda for inservice inspection (ISI) items, subject to the limitations and modifications listed in 10 CFR 50.55a(b).

2.0 REGULATORY EVALUATION

In its request, the licensee proposed the use of a later edition of the ASME Code, Section XI, in accordance with 10 CFR 50.55a(g)(4)(iv). Specifically, 10 CFR 50.55a(g)(4)(iv) states:

> Inservice examination of components and system pressure tests may meet the requirements set forth in subsequent editions and addenda that are incorporated by reference in paragraph (a) of this section, subject to the conditions listed in paragraph (b) of this section, and subject to Commission approval. Portions of editions or addenda may be used, provided that all related requirements of the respective editions or addenda are met.

Regulations promulgated by 10 CFR 50.55a(g)(4)(iv) specifically permit the use of later editions of the ASME Code, subject to technical criteria that will be considered in Section 3 of this safety evaluation. Accordingly, the NRC staff finds that regulatory authority exists for the licensee to request, and the NRC to authorize, the use of a subsequent editions of the ASME Code, subject to the conditions stated above.

3.0 TECHNICAL EVALUATION

3.1 Proposed Subsequent Code Edition and Addenda

In its submittal, the licensee identified the affected components as ASME Code Class 1 and 2 components that are subject to ASME Code, Section XI, Examination Categories B-L-1, B-M-1 and Category C-G. Examination Categories B-L-1 and B-M-1 are for ASME Code Class 1 components and are related to the examinations of pressure-retaining welds in pump casings and pressure-retaining welds in valve bodies, respectively. Examination Category C-G is for ASME Code Class 2 components and covers examinations of pressure-retaining welds in pumps and valves.

The Code of record for the current ISI interval at Calvert Cliffs for Code Class 1, 2, and 3, components is the 2004 Edition of the ASME Code, Section XI. The examinations would not be required to be performed under the Code of record for the affected components until the last period of the current inspection interval. In lieu of using the Code of record, Exelon proposed to use the 2013 Edition of the ASME Code, Section XI, for Categories B-L-1, B-M-1, and C-G components. The licensee noted that beginning with the 2007 Edition through the 2008 Addenda of the ASME Code, Section XI examination categories for pump casings and valve body welds B-L-1, B-M-1, and C-G were removed. The provision to use the later edition of the ASME Code in the proposed request will be used for the remainder of the current ISI interval at Calvert Cliffs, which started on October 10, 2009, and is scheduled to end on June 30, 2019.

3.2 NRC Staff Evaluation

The regulations in 10 CFR 50.55a(g)(4)(iv) contain four criteria that must be met prior to the use of a subsequent edition of the ASME Code. The criteria are as follows:

1. The proposed edition/addendum of the ASME Code is incorporated by reference in 10 CFR 50.55a(a).

2. The proposed edition/addendum of the ASME Code is subject to the conditions listed in 10 CFR 50.55a(b).

3. The licensee shall request Commission approval to use the proposed edition/addendum of the ASME Code.

4. If only portions of editions or addenda are to be used, all related requirements of the respective editions or addenda must be met.

In evaluating the first criterion (i.e., that the proposed edition/addendum of the ASME Code has been incorporated by reference in 10 CFR 50.55a(a)), the NRC staff notes that the regulation in10 CFR 50.55a(a)(ii) incorporates by reference the ASME Code, Section XI, from the 1970 Edition through the 1976 Winter Addenda, and the 1977 Edition through the 2013 Edition, which Exelon has proposed to use. Therefore, the NRC staff finds that the first criterion has been satisfied.

In evaluating the second criterion (i.e., the conditions listed in 10 CFR 50.55a(b) are satisfied for the specific proposed subsequent edition and addenda of the ASME Code, Section XI), the NRC staff notes that 10 CFR 50.55a(b) sets no conditions on Examination Categories B-L-1,

B-M-1 and Category C-G of the 2013 Edition of the ASME Code, Section XI. Therefore, the NRC staff finds that the second criterion has been satisfied.

In evaluating the third criterion (i.e., the licensee shall request Commission approval to use the proposed edition/addendum of the ASME Code), the NRC staff notes that the licensee's proposal constitutes a request to the Commission for approval to use a subsequent edition/addendum of the ASME Code. Therefore, the NRC staff finds that the third criterion has been satisfied.

In evaluating the fourth criterion (i.e., if portions of subsequent editions or addenda of the ASME Code, Section XI, are used, all related requirements of the respective editions or addenda must be met), the NRC staff is satisfied that the licensee has listed all related requirements for Examination Categories B-L-1, B-M-1 and Category C-G of the 2013 Edition of the ASME Code, Section XI. Specifically, these are the volumetric examinations associated with pump and valve components required by Examination Categories B-G-1 and C-D, the surface examinations of associated pump and valve components required by Examination Categories B-K and C-C, and the visual examinations associated with pump and valve components required by Examination Categories B-G-1, B-G-2, B-L-2, and B-M-2. Because all the related requirements will be met by the licensee, the NRC staff finds that the fourth criterion has been satisfied.

The NRC staff finds that the four criteria contained in 10 CFR 50.55a(g)(4)(iv) are satisfied, and the licensee's request to use the 2013 Edition of the ASME Code, Section XI, for Examination Categories B-L-1 and B-M-1 for Class 1 and Category C-G for Class 2 at Calvert Cliffs is acceptable.

4.0 CONCLUSION

The NRC staff determines, as set forth above, that the use of the requirements of a subsequent edition of the ASME Code, Section XI, is acceptable. Accordingly, the NRC staff concludes that the licensee adequately addressed all the regulatory requirements set forth in 10 CFR 50.55a(g)(4)(iv). Therefore, the NRC staff approves the use of the 2013 Edition of the ASME Code, Section XI, for Examination Categories B-L-1 and B-M-1 for Class 1 and C-G for Class 2 at Calvert Cliffs for the remainder of the current fourth 10-year ISI interval, which started on October 10, 2009, and is currently scheduled to end on June 30, 2019.

All other ASME Code, Sections XI requirements for which the request was not specified remains applicable, including a third-party review by the Authorized Nuclear Inservice Inspector.

Principal Contributor: Roger Kalikian

Date: May 30, 2019

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