



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

February 3, 2021

Mr. David P. Rhoades
Senior Vice President
Exelon Generation Company, LLC
President and Chief Nuclear Officer (CNO)
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2; BYRON STATION, UNIT NOS. 1 AND 2; CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2; CLINTON POWER STATION, UNIT NO. 1; DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3; JAMES A. FITZPATRICK NUCLEAR POWER PLANT; LASALLE COUNTY STATION, UNITS 1 AND 2; LIMERICK GENERATING STATION, UNITS 1 AND 2; NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2; PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3; QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2; AND R. E. GINNA NUCLEAR POWER PLANT – REQUEST TO USE A PROVISION OF A LATER EDITION OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS BOILER AND PRESSURE VESSEL CODE, SECTION XI (EPID L-2020-LLR-0118)

Dear Mr. Rhoades:

By application dated September 2, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20246G739), as supplemented by letter dated September 24, 2020 (ADAMS Accession No. ML20268A984), Exelon Generation Company, LLC (Exelon) submitted a request to use a provision of a later edition of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code, Section XI, at Braidwood Station (Braidwood), Units 1 and 2; Byron Station (Byron), Unit Nos. 1 and 2; Calvert Cliffs Nuclear Power Plant (Calvert Cliffs), Units 1 and 2; Clinton Power Station (Clinton), Unit No. 1; Dresden Nuclear Power Station (Dresden), Units 2 and 3; James A. FitzPatrick Nuclear Power Plant (FitzPatrick); LaSalle County Station (LaSalle), Units 1 and 2; Limerick Generating Station (Limerick), Units 1 and 2; Nine Mile Point Nuclear Station (NMP), Units 1 and 2; Peach Bottom Atomic Power Station (Peach Bottom), Units 2 and 3; Quad Cities Nuclear Power Station (Quad Cities), Units 1 and 2; and R. E. Ginna Nuclear Power Plant (Ginna). Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(4)(iv), Exelon proposed to use the periodic system pressure test exemptions in paragraph IWA-5120 of the 2017 Edition of the ASME BPV Code, Section XI, at each of these facilities.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the subject request and concludes, as set forth in the enclosed safety evaluation, that Exelon has adequately addressed the requirements in 10 CFR 50.55a(g)(4)(iv). Therefore, the NRC staff approves the use of paragraph IWA-5120 of the 2017 Edition of the ASME BPV Code, Section XI, for Braidwood

Units 1 and 2, Byron Unit Nos. 1 and 2, Calvert Cliffs Units 1 and 2, Clinton Unit No. 1, Dresden Units 2 and 3, FitzPatrick, LaSalle Units 1 and 2, Limerick Units 1 and 2, NMP Units 1 and 2, Peach Bottom Units 2 and 3, Quad Cities Units 1 and 2, and Ginna. For each facility, this approval is for the remainder of the current 10-year inservice inspection interval, as specified in the application and as supplemented by the September 24, 2020, letter.

If you have any questions, please contact Blake Purnell at 301-415-1380 or via e-mail at Blake.Purnell@nrc.gov.

Sincerely,

Nancy L. Salgado, Chief
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-456, STN 50-457,
STN 50-454, STN 50-455, 50-317, 50-318,
50-461, 50-237, 50-249, 50-333, 50-373,
50-374, 50-352, 50-353, 50-220, 50-410,
50-277, 50-278, 50-254, 50-265, and 50-244

Enclosure:
Safety Evaluation

cc: Listserv



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST TO USE A PROVISION OF A LATER EDITION OF

THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

BOILER AND PRESSURE VESSEL CODE

EXELON GENERATION COMPANY, LLC

BRAIDWOOD STATION, UNITS 1 AND 2

BYRON STATION, UNIT NOS. 1 AND 2

CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2

CLINTON POWER STATION, UNIT NO. 1

DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

LASALLE COUNTY STATION, UNITS 1 AND 2

LIMERICK GENERATING STATION, UNITS 1 AND 2

NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2

PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3

QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2

R. E. GINNA NUCLEAR POWER PLANT

DOCKET NOS. STN 50-456, STN 50-457, STN 50-454, STN 50-455,

50-317, 50-318, 50-461, 50-237, 50-249, 50-333, 50-373, 50-374, 50-352,

50-353, 50-220, 50-410, 50-277, 50-278, 50-254, 50-265, AND 50-244

1.0 INTRODUCTION

By application dated September 2, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20246G739), as supplemented by letter dated September 24, 2020 (ADAMS Accession No. ML20268A984), Exelon Generation Company, LLC (Exelon, the licensee) submitted a request to use a provision of a later edition of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code, Section XI, at Braidwood Station (Braidwood), Units 1 and 2; Byron Station (Byron), Unit Nos. 1 and 2; Calvert Cliffs Nuclear Power Plant (Calvert Cliffs), Units 1 and 2; Clinton Power Station (Clinton), Unit No. 1; Dresden Nuclear Power Station (Dresden), Units 2 and 3; James A. FitzPatrick Nuclear Power Plant (FitzPatrick); LaSalle County Station (LaSalle), Units 1 and 2; Limerick Generating Station (Limerick), Units 1 and 2; Nine Mile Point Nuclear Station (NMP), Units 1 and 2; Peach Bottom Atomic Power Station (Peach Bottom), Units 2 and 3; Quad Cities Nuclear Power Station (Quad Cities), Units 1 and 2; and R. E. Ginna Nuclear Power Plant (Ginna). Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(4)(iv), Exelon proposed to use the periodic system pressure test exemptions in paragraph IWA-5120 of the 2017 Edition of the ASME BPV Code, Section XI, at each of these facilities.

2.0 REGULATORY EVALUATION

Specific editions and addenda, or portions thereof, of the ASME BPV Code, Section XI, have been incorporated by reference into 10 CFR 50.55a(a)(1)(ii). The editions and addenda of the ASME BPV Code, Section XI, are subject to the limitations in 10 CFR 50.55a(b)(2).

The regulations in 10 CFR 50.55a(g)(4) state, in part, that ASME Code Class 1, 2, and 3 components (including supports) must meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in Section XI of the applicable editions and addenda of the ASME Code to the extent practical within the limitations of design, geometry, and materials of construction of the components. Paragraph 50.55a(g)(4)(iv) of 10 CFR 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 [10 CFR 50.55a], 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.

3.0 TECHNICAL EVALUATION

3.1 Exelon's Request

3.1.1 Components for Which the Subsequent Code Edition is Requested

All Class 1, 2, and 3 items located in the ASME BPV Code, Section XI, boundaries subject to periodic system pressure tests.

3.1.2 Current Code Edition and Addenda of Record

The application, as supplemented, identified the currently applicable editions and addenda of the ASME BPV Code, Section XI, for each plant, as shown in Table 1 below. In addition, Table 1 shows the associated 10-year inservice inspection (ISI) interval, including the start and end dates, for each plant.

Table 1: Current ASME BPV Code, Section XI, Code of Record

PLANT	ISI INTERVAL	ASME BPV CODE, SECTION XI	START	END
Braidwood Unit 1	4th	2013 Edition	8/29/2018	7/28/2028
Braidwood Unit 2	4th	2013 Edition	11/5/2018	10/16/2028
Byron Units 1 and 2	4th	2007 Edition, through 2008 Addenda	7/16/2016	7/15/2025
Calvert Cliffs Units 1 and 2	5th	2013 Edition	7/1/2019	6/30/2029
Clinton	4th	2013 Edition	7/1/2020	6/30/2030
Dresden Units 2 and 3	5th	2007 Edition, through 2008 Addenda	1/20/2013	1/19/2023
FitzPatrick	5th	2007 Edition, through 2008 Addenda	8/1/2017	6/15/2027
LaSalle Units 1 and 2	4th	2007 Edition, through 2008 Addenda	10/1/2017	9/30/2027
Limerick Units 1 and 2	4th	2007 Edition, through 2008 Addenda	2/1/2017	1/31/2027
NMP Unit 1	5th	2013 Edition	8/23/2019	8/22/2029
NMP Unit 2	4th	2013 Edition	8/23/2018	8/22/2028
Peach Bottom Units 2 and 3	5th	2013 Edition	1/1/2019	12/31/2028
Quad Cities Units 1 and 2	5th	2007 Edition, through 2008 Addenda	4/2/2013	4/1/2023
Ginna	6th	2013 Edition	1/1/2020	12/31/2029

3.1.3 Proposed Subsequent Code Edition

The proposed subsequent Code edition to be used is paragraph IWA-5120 of the 2017 Edition of the ASME BPV Code, Section XI, in place of the requirements in subparagraph IWA-5110(c) in the currently applicable editions and addenda of the ASME BPV Code, Section XI, for each facility (see Table 1 above). Subparagraph IWA-5110(c) in the current code of record (Table 1) states: "Piping that penetrates a containment vessel is exempt from the periodic system pressure test when the piping and isolation valves perform a containment function and the balance of the piping system is outside the scope of this Division." Subparagraph IWA-5110(c) was relocated to the new paragraph IWA-5120 in the 2017 Edition of the ASME BPV Code, Section XI. However, paragraph IWA-5120 also exempts additional systems and components from the periodic pressure test requirement.

3.1.4 Duration of the Use of the Later Code Edition

The duration of this request is for the remainder of the current 10-year ISI interval for each plant, as shown in Table 1 above.

3.2 Staff Evaluation

Based on the requirements in 10 CFR 50.55a(g)(4)(iv), the U.S. Nuclear Regulatory Commission (NRC or Commission) staff considered the following criteria in its review of Exelon's application:

1. The proposed edition or addenda of the ASME BPV Code are incorporated by reference in 10 CFR 50.55a(a).
2. The proposed edition or addenda of the ASME BPV Code are subject to the conditions listed in 10 CFR 50.55a(b).
3. The licensee requested NRC approval to use the subsequent edition or addenda of the ASME BPV Code.
4. If only portions of editions or addenda are to be used, all related requirements of the respective editions or addenda are met.

Exelon requested to use specific provisions in the 2017 Edition of the ASME BPV Code, Section XI, which has been incorporated by reference in 10 CFR 50.55a(a). Therefore, the first criterion above has been satisfied.

The NRC staff determined that there are no conditions on paragraph IWA-5120 of the 2017 Edition of the ASME BPV Code, Section XI, listed in 10 CFR 50.55a(b). Therefore, the second criterion above has been satisfied.

The NRC staff determined that Exelon's request dated September 2, 2020, constitutes a request to the Commission for approval to use a subsequent edition or addendum of the ASME BPV Code, Section XI. Therefore, the third criterion above has been satisfied.

The NRC staff reviewed Article IWA-5000, which includes paragraph IWA-5120, of the 2017 Edition of the ASME Code, Section XI, to determine whether other relevant provisions would affect the proposed use of paragraph IWA-5120 at Exelon's facilities. The pressure testing exemption provisions of paragraph IWA-5120 were added to Section XI with the 2017 Edition. The NRC staff determined that no other related changes were added to Section XI, Article IWA-5000, with the 2017 Edition that would need to be implemented as part of Exelon's request. Therefore, the fourth criterion above has been satisfied.

The NRC staff finds that the licensee has adequately addressed all regulatory requirements set forth in 10 CFR 50.55a(g)(4)(iv) since the four criteria above have been satisfied.

4.0 CONCLUSION

As set forth above, the NRC staff finds that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(g)(4)(iv). Therefore, the NRC staff concludes that the use of paragraph IWA-5120 of the 2017 Edition of the ASME BPV Code, Section XI, is acceptable. The NRC staff approves the use of paragraph IWA-5120 of the 2017 Edition of the ASME BPV Code, Section XI, at Braidwood Units 1 and 2, Byron Unit Nos. 1 and 2, Calvert Cliffs Units 1 and 2, Clinton Unit No. 1, Dresden Units 2 and 3, FitzPatrick, LaSalle Units 1 and 2, Limerick Units 1 and 2, NMP Units 1 and 2, Peach Bottom Units 2 and 3,

Quad Cities Units 1 and 2, and Ginna. For each facility, this approval is for the remainder of the current 10-year ISI interval, as listed in Table 1 above.

Principal Contributor: John Tsao, NRR/DNRL/NVIB
Keith Hoffman, NRR/DNRL/NPHP

Date: February 3, 2021

SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2; BYRON STATION, UNIT NOS. 1 AND 2; CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2; CLINTON POWER STATION, UNIT NO. 1; DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3; JAMES A. FITZPATRICK NUCLEAR POWER PLANT; LASALLE COUNTY STATION, UNITS 1 AND 2; LIMERICK GENERATING STATION, UNITS 1 AND 2; NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2; PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3; QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2; AND R. E. GINNA NUCLEAR POWER PLANT – REQUEST TO USE A PROVISION OF A LATER EDITION OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS BOILER AND PRESSURE VESSEL CODE, SECTION XI (EPID L-2020-LLR-0118) DATED FEBRUARY 3, 2021

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ADAMS Accession No.: ML21028A673

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