



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

September 22, 2021

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

SUBJECT: R.E. GINNA NUCLEAR POWER PLANT – ISSUANCE OF  
ALTERNATIVE REQUEST GR-03, VALVE POSITION VERIFICATION  
TESTING EXTENSION SIXTH 10-YEAR INSERVICE TESTING  
PROGRAM INTERVAL (EPID L-2020-LLR-0027)

Dear Mr. Hanson:

By letter dated April 12, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21102A260), as supplemented by a revision dated April 19, 2021 (ADAMS Accession No. ML21109A209), Exelon Generation Company, LLC (Exelon, the licensee) submitted Alternative Request GR-03 to the U.S. Nuclear Regulatory Commission (NRC) regarding specific Inservice Testing (IST) Program requirements in the 2012 Edition of the American Society of Mechanical Engineers (ASME) *Operation and Maintenance of Nuclear Power Plants*, Division 1, OM Code: Section IST (OM Code) as incorporated by reference in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a at R.E. Ginna Nuclear Power Plant (Ginna) associated with the sixth 10-year IST program interval.

Specifically, pursuant to 10 CFR 50.55a(z)(2), the licensee requested to use the proposed alternative in request GR-03, on the basis that complying with the requirements of the OM Code would result in hardship without a compensating increase in the level of quality and safety. On April 26, 2021, the NRC provided a verbal authorization (ADAMS Accession No. ML21117A031) of Alternative Request GR-03 for Ginna. The verbal authorization documentation provides a summary of the NRC staff evaluation for this proposed alternative. Although the licensee submitted its request under 10 CFR 50.55a(z)(2), the staff evaluated this alternative request under 10 CFR 50.55a(z)(1) consistent with review precedent.

The NRC staff finds that the implementation of Alternative Request GR-03 at Ginna provides an acceptable level of quality and safety until December 28, 2021. Accordingly, the NRC staff concludes that the licensee has adequately addressed the regulatory requirements set forth in 10 CFR 50.55a(z)(1). Therefore, the NRC authorizes the use of Alternative Request GR-03 at Ginna until December 28, 2021.

All other ASME OM Code requirements for which relief was not specifically requested and approved remain applicable.

If you have any questions, please contact the Limerick Project Manager, V. Sreenivas, at 301-415-2597 or [V.Sreenivas@nrc.gov](mailto:V.Sreenivas@nrc.gov).

Sincerely,

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

Docket No. 50-244

Enclosure:  
Safety Evaluation

cc: Listserv



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

ALTERNATIVE REQUEST GR-03, VALVE POSITION VERIFICATION TESTING EXTENSION

SIXTH 10-YEAR INSERVICE TESTING PROGRAM INTERVAL

EXELON GENERATION COMPANY, LLC

R. E. GINNA NUCLEAR POWER PLANT

DOCKET NO. 50-244

1.0 INTRODUCTION

By letter dated April 12, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21102A260), as supplemented by a revision dated April 19, 2021 (ADAMS Accession No. ML21109A209), Exelon Generation Company, LLC (Exelon, the licensee) submitted Alternative Request GR-03 to the U.S. Nuclear Regulatory Commission (NRC) regarding specific Inservice Testing (IST) Program requirements in the 2012 Edition of the American Society of Mechanical Engineers (ASME) *Operation and Maintenance of Nuclear Power Plants*, Division 1, OM Code: Section IST (OM Code) as incorporated by reference in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a at R.E. Ginna Nuclear Power Plant (Ginna) associated with the Sixth 10-Year IST Program interval.

Specifically, pursuant to 10 CFR 50.55a(z)(2), the licensee requested to use the proposed alternative in request GR-03, on the basis that complying with the requirements of the OM Code would result in hardship without a compensating increase in the level of quality and safety. Although the licensee submitted its request under 10 CFR 50.55a(z)(2), the staff evaluated this alternative request under 10 CFR 50.55a(z)(1) consistent with review precedent.

On April 26, 2021, the NRC provided a verbal authorization (ADAMS Accession No. ML21117A031) of Alternative Request GR-03 for Ginna. The verbal authorization documentation provides a summary of the NRC staff evaluation for this proposed alternative. This safety evaluation (SE) provides the details of the NRC staff review of Alternative Request GR-03 for Ginna.

2.0 REGULATORY EVALUATION

The NRC regulations in 10 CFR 50.55a(f), "Inservice Testing Requirements," require, in part, that inservice testing of certain ASME Code Class 1, 2, and 3 components meet the requirements of the ASME OM Code and applicable addenda, except where alternatives have been authorized pursuant to paragraph 10 CFR 50.55a(z)(1) or 10 CFR 50.55a(z)(2).

The NRC regulations in 10 CFR 50.55a(b)(3)(xi), "OM condition: Valve Position Indication," state the following:

When implementing paragraph ISTC-3700, "Position Verification Testing," in the ASME OM Code, 2012 Edition through the latest edition and addenda of the ASME OM Code incorporated by reference in paragraph (a)(1)(iv) of this section, licensees shall verify that valve operation is accurately indicated by supplementing valve position indicating lights with other indications, such as flow meters or other suitable, to provide assurance of proper obturator position for valves with remote position indication within the scope of Subsection ISTC including its mandatory appendices and their verification methods and frequencies.

In proposing alternatives, a licensee must demonstrate that the proposed alternatives provide an acceptable level of quality and safety (10 CFR 50.55a(z)(1)) or compliance would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety (10 CFR 50.55a(z)(2)).

### 3.0 TECHNICAL EVALUATION

#### 3.1 Licensee's Alternative Request GR-03

The IST requirements of the ASME OM Code as incorporated by reference in 10 CFR 50.55a related to this alternative request are as follows:

ASME OM Code, Subsection ISTC-3700, "Position Verification Testing," states, in part, that:

Valves with remote position indicators shall be observed locally at least once every 2 yr [years] to verify that valve operation is accurately indicated. Where practicable, this local observation should be supplemented by other indications such as use of flow meters or other suitable instrumentation to verify obturator position. These observations need not be concurrent. Where local observation is not possible, other indications shall be used for verification of valve operation.

In its submittal dated April 12, 2021, as supplemented by a revision dated April 19, 2021, the licensee requested a one-time extension of the testing interval for the following 15 valves at Ginna:

| <u>Valve ID</u> | <u>Description</u>  | <u>Code Class</u> | <u>Category</u> | <u>Type</u> |
|-----------------|---|-------------------|-----------------|-------------|
| 310             | Excess Letdown Loop A Coldto Heat Exchanger Valve                               | 1                 | B               | AOV         |
| 371             | Letdown Isolation Valve Residual Heat Removal toNon-Regenerative Heat Exchanger | 2                 | A               | AOV         |
| 386             | Reactor Coolant Pump A andB Seal Bypass Valve                                   | 2                 | B               | AOV         |

|      |  |   |   |     |
|------|--|---|---|-----|
| 5392 | Instrument Air to Containment Isolation Valve              | 2 | A | AOV |
| 835A | Safety Injection Accumulator A Fill Valve                  | 2 | B | AOV |
| 835B | Safety Injection Accumulator B Fill Valve                  | 2 | B | AOV |
| 839A | Safety Injection Accumulator A Test Valve                  | 2 | B | AOV |
| 840A | Safety Injection Accumulator B Test Valve                  | 2 | B | AOV |
| 844A | Safety Injection Accumulator A Drain Valve                 | 2 | B | AOV |
| 844B | Safety Injection Accumulator B Drain Valve                 | 2 | B | AOV |
| 875A | Upper Containment Spray Charcoal Filter Dousing Valve      | 2 | B | MOV |
| 875B | Upper Containment Spray Charcoal Filter Dousing Valve      | 2 | B | MOV |
| 876A | Lower Containment Spray Charcoal Filter Dousing Valve      | 2 | B | MOV |
| 876B | Lower Containment Spray Charcoal Filter Dousing Valve      | 2 | B | MOV |
| 966A | Pressurizer Steam Space Sample Containment Isolation Valve | 2 | A | AOV |

Reason for Request

In its submittal, the licensee proposed that compliance with the provisions in ASME OM Code, Subsection ISTC, paragraph ISTC-3700, as incorporated by reference in 10 CFR 50.55a and supplemented by 10 CFR 50.55a(b)(3)(xi), to perform obturator position verification testing of specific valves during the spring 2021 at Ginna would result in a hardship without a compensating increase in the level of quality and safety in accordance with 10 CFR 50.55a(z)(2). The most-limiting supplemental position indication (SPI) testing interval for these valves would end on April 28, 2021, based on the 2-year interval that came into effect on January 1, 2020, and considering the use of the 6-month interval extension allowed by ASME OM Code Case OMN-20, "Inservice Test Frequency." The ISTC-3700 position verification requirement as supplemented by 10 CFR 50.55a(b)(3)(xi) requires the valves to be exercised in the open and closed direction and the valve obturator position verified by other indications, such as use of flow meters or other suitable instrumentation. The licensee stated that the position verification testing would require a forced plant shutdown at Ginna.

Although the licensee submitted its request under 10 CFR 50.55a(z)(2), the staff evaluated this alternative request under 10 CFR 50.55a(z)(1) consistent with review precedent. In its request dated April 12, 2021, as supplemented by a revision dated April 19, 2021, the licensee proposed a one-time extension of eight months (to December 28, 2021) for position verification testing of 15 valves listed above at Ginna to allow the testing to be performed during the next refueling outage, which is scheduled to begin on October 4, 2021.

### 3.2 NRC Staff Evaluation

As incorporated by reference in 10 CFR 50.55a, ASME OM Code (2012 Edition), Subsection ISTC-3700, requires, in part, that valves with remote position indicators shall be observed locally at least once every 2 years to verify that valve operation is accurately indicated. Where practicable, this local observation should be supplemented by other indications such as use of flow meters or other suitable instrumentation to verify obturator position. The NRC regulations in 10 CFR 50.55a(b)(3)(xi) require that licensees implementing the ASME OM Code (2012 or later Editions) verify that valve operation is accurately indicated by supplementing valve position indicating lights with other indications, such as flow meters or other suitable instrumentation to provide assurance of proper obturator position for valves with remote position indication within the scope of Subsection ISTC including its mandatory appendices and their verification methods and frequencies.

In lieu of performing the ASME OM Code valve position testing requirements as supplemented by 10 CFR 50.55a(b)(3)(xi), the licensee requested a one-time extension of eight months to the next refueling outage currently scheduled for October 2021 for the valve position testing of the 15 valves listed in the above table. The eight-month extension includes the six-month grace period allowed by ASME OM Code Case OMN-20. The NRC staff notes that ASME OM Code Case OMN-20 is accepted in Regulatory Guide 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code," as incorporated by reference in 10 CFR 50.55a.

In its request dated April 12, 2021, the licensee stated that these valves have demonstrated exceptional performance and reliability, and have satisfactorily passed their IST tests for the past 10 years. Additionally, the licensee indicated that these valves have no history of stem-disk separation. In a revision dated April 19, 2021, the licensee provided additional information regarding the specific tests or operations that have been performed on the individual valves listed in its submittal to provide confidence in the open or closed obturator positions. For example, the open position of some of the 15 valves has been verified by flow during normal operation or IST testing, while the closed position of some of these valves has been verified by maintaining system pressure or water level during normal operations or IST testing.

Based on the information described above for these 15 valves, the NRC staff finds that (1) previous IST testing including position verification testing of these valves indicates their acceptable historical performance; (2) no current concerns with the performance of these valves have been identified; (3) periodic maintenance activities are not modified by this request; and (4) the alternative provides an acceptable level of quality and safety for the short extension of the valve position indication testing interval requested in the licensee's submittal.

### 4.0 CONCLUSION

On April 26, 2021, the NRC provided a verbal authorization of Alternative Request GR-03 for Ginna. As described in this SE, the NRC staff finds that the implementation of Alternative Request GR-03 for the 15 valves at Ginna will provide an acceptable level of quality and safety until December 28, 2021. Accordingly, the NRC staff concludes that the licensee has adequately addressed the regulatory requirements set forth in 10 CFR 50.55a(z)(1). Therefore, the NRC authorizes the use of Alternative Request GR-03 at Ginna until December 28, 2021.

All other ASME Code requirements for which relief or an alternative was not specifically requested, and granted or authorized (as appropriate), in the subject request remain applicable.

Principal Contributors: M. Farnan  
T. Scarbrough  
Y. Wong

Dated: September 22, 2021

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\*by e-mail

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