

VERBAL AUTHORIZATION BY THE NRC OFFICE OF NUCLEAR REACTOR REGULATION
FOR RELIEF REQUEST GVRR-9 ASSOCIATED WITH PANDEMIC-RELATED ISSUES –
INSERVICE TESTING INTERVAL EXTENSION MOTOR-OPERATED VALVES
LIMERICK GENERATING STATION, UNIT 1
EXELON GENERATION
DOCKET NO. 50-352
MARCH 31, 2020

Technical Evaluation read by Thomas G. Scarbrough, Acting Chief, Mechanical Engineering and Inservice Testing Branch, Division of Engineering and External Hazards, NRC Office of Nuclear Reactor Regulation

By letter dated March 29, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20089A008), Exelon Generation (the licensee) proposed an alternative to specific 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), for Limerick Generating Station, Unit 1 (Limerick Unit 1), pursuant to Title 10 of the *Code of Federal Regulations*, Part 50, Section 55a (10 CFR 50.55a).

In particular, the licensee submitted “Relief Request GVRR-9 Associated with Pandemic Related Issues – Inservice Testing Interval Extension for Motor Operated Valves” on March 29, 2020, requesting NRC authorization for a one-time Inservice Testing (IST) Program interval extension to the next refueling outage for diagnostic testing of 17 motor-operated valves (MOVs) at Limerick Unit 1. The licensee provided justification that compliance with the requirements in the ASME OM Code, Mandatory Appendix III, to conduct diagnostic testing of the specific MOVs at this time 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).

In its alternative request, the licensee stated that the performance of diagnostic testing of the 17 specified MOVs at this time at Limerick Unit 1 would represent a hardship during this COVID-19 outbreak, because performing the MOV diagnostic tests would require work in close spaces which could be detrimental to the occupational health and safety of plant personnel. To support its request for a one-time extension of the diagnostic testing interval for these MOVs until the next refueling outage in the spring of 2022, the licensee provided the calculated functional margin, after accounting for uncertainties and degradation factors, for each specific MOV based on the most current diagnostic test data. The licensee’s calculations indicate that each of the MOVs has a functional margin of at least 10 percent. The licensee reports that its evaluation in preparing the alternative request included a review of the maintenance history of each MOV. The licensee states that no deficiencies, adverse trends, or open maintenance work orders were identified that would impact or degrade the performance capability of these MOVs. The licensee reports that each MOV is undergoing the standard testing interval with acceptable performance. The licensee considers that the current acceptable performance and high functional margin supports reasonable assurance that each MOV will continue to be capable of performing its design function during the time interval of this alternative request.

Based on the information described above for the 17 specific MOVs at Limerick Unit 1 identified in the licensee’s submittal, the NRC staff finds that (1) previous diagnostic testing of those MOVs indicates their acceptable historical performance; (2) ongoing IST activities have not identified MOV performance concerns; (3) periodic maintenance activities will continue; and (4) a hardship exists for the performance of diagnostic testing of these MOVs at this time that would be contrary to the health and safety of plant personnel.

Therefore, the NRC finds that the licensee's proposed alternative for a one-time extension of the diagnostic testing interval for the specified 17 MOVs at Limerick Unit 1 is acceptable. The proposed alternative will provide reasonable assurance that the MOVs will be operationally ready to perform their safety functions until the next refueling outage currently scheduled for the spring of 2022.

Authorization read by James Danna, Chief of the Plant Licensing Branch I, Office of Nuclear Reactor Regulation

As Chief of the Plant Licensing Branch I, Office of Nuclear Reactor Regulation, I agree with the conclusions of the Mechanical Engineering and Inservice Testing Branch.

The NRC staff concludes that the proposed alternative will provide reasonable assurance that the MOVs will be operationally ready to perform their safety functions until the next refueling outage currently scheduled for the spring of 2022. The NRC staff finds that complying with the requirements of the ASME OM Code for diagnostic testing of the specified MOVs at Limerick Unit 1 at this time would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. 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).

Therefore, effective March 31, 2020, the NRC authorizes the use of the proposed alternative at Limerick Unit 1 until restart from the next refueling outage for Limerick Unit 1 in the spring of 2022. The licensee's testing plans for these MOVs may be adjusted as appropriate by any subsequent NRC-authorized alternative requests.

All other ASME OM Code requirements as incorporated by reference in 10 CFR 50.55a for which relief or an alternative was not specifically requested and approved in this subject request remain applicable. If the licensee identifies a performance issue with any of these MOVs, the licensee will be expected to take action to implement the requirements of its technical specifications.

This verbal authorization does not preclude the NRC staff from asking additional clarification questions regarding the proposed alternative while subsequently preparing the written safety evaluation.