



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

May 12, 2013

Mr. Michael J. Pacilio
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: THREE MILE ISLAND NUCLEAR STATION, UNIT 1 – APPROVAL OF REQUEST TO USE A PROVISION OF A LATER ADDENDA OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS CODE FOR OPERATION AND MAINTENANCE OF NUCLEAR POWER PLANTS (TAC NO. ME9510)

Dear Mr. Pacilio:

By letter dated September 10, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12254A177), as supplemented by letter dated February 12, 2013 (ADAMS Accession No. ML130430779), Exelon Generation Company, LLC (Exelon, the licensee) submitted a request to use a provision of a later edition and addenda of the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code) for the fourth 10-year inservice testing (IST) program interval at Three Mile Island, Unit 1 (TMI-1). Specifically, Exelon proposed to use a portion of a later edition of the ASME OM Code that allows pump inservice testing reference values to be up to 90 percent of the test instrument range when using digital instruments.

The NRC staff has reviewed the licensee's request, LE-01, to use Subparagraph ISTB-3510(b) of the 2004 Edition through 2006 Addenda of the ASME OM Code for testing all pumps in the IST program for the remainder of the fourth 10-year IST interval at TMI-1, and has concluded that it is acceptable, as documented in the enclosed safety evaluation. Further, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(f)(4)(iv), and is in compliance with the ASME OM Code's requirements as they relate to this request. Therefore, the NRC staff approves the request, LE-01, for the remainder of the TMI-1 fourth 10-year IST interval, which commenced on September 23, 2004, and ends on October 14, 2013.

M. Pacilio

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Please contact Peter Bamford at 301-415-2833, if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Meena Khanna', with a long horizontal flourish extending to the right.

Meena Khanna, Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-289

Enclosure:
Safety Evaluation

cc: Distribution via Listserv



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

REGARDING USE OF A LATER ADDENDA OF AMERICAN SOCIETY OF
MECHANICAL ENGINEERS CODE FOR OPERATION AND MAINTENANCE
OF NUCLEAR POWER PLANTS

REQUEST NO. LE-01

THREE MILE ISLAND NUCLEAR STATION, UNIT 1

DOCKET NO. 50-289

1.0 INTRODUCTION

By letter dated September 10, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12254A177), as supplemented by letter dated February 12, 2013 (ADAMS Accession No. ML130430779), Exelon Generation Company, LLC (Exelon, the licensee) submitted a request to use a provision of a later edition and addenda of the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code) for the fourth 10-year inservice testing (IST) program interval at Three Mile Island, Unit 1 (TMI-1). Specifically, the licensee proposed to use a specific portion of a later edition of the ASME OM Code that allows pump inservice testing reference values to be up to 90 percent of the test instrument range when using digital instruments.

Pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(f)(4)(iv), the licensee requested in LE-01 to use a specific portion of the 2004 Edition through 2006 Addenda of the ASME OM Code, which was incorporated by reference into 10 CFR 50.55a in 2012. The current code of record for the TMI-1 IST Program is the 1998 Edition through 2000 Addenda of the ASME OM Code.

2.0 REGULATORY EVALUATION

Paragraph 50.55a(f) of 10 CFR, "Inservice testing requirements," requires, in part, that IST of certain ASME Code Class 1, 2, and 3 components must meet the requirements of the ASME Code and applicable addenda, except where alternatives have been authorized by the U.S. Nuclear Regulatory Commission (NRC) pursuant to paragraph (a)(3)(i), (a)(3)(ii) or (f)(4)(iv). In accordance with 10 CFR 50.55a(f)(4)(ii), licensees are required to comply with the requirements of the latest edition and addenda of the ASME Code incorporated by reference in the regulations 12 months prior to the start of each 120-month IST program interval. In accordance with 10 CFR 50.55a(f)(4)(iv), IST of pumps and valves may meet the requirements set forth in subsequent editions and addenda that are incorporated by reference in 10 CFR 50.55a(b), subject to NRC approval. Portions of editions or addenda may be used provided that all related requirements of the respective editions and addenda are met. Regulatory Issue Summary (RIS)

Enclosure

2004-12, "Clarification on Use of Later Editions and Addenda to the ASME OM Code and Section XI," provides guidance for use of later code editions.

3.0 TECHNICAL EVALUATION

3.1 Licensee's Request LE-01

In accordance with 10 CFR 50.55a, "Codes and standards," paragraph (f)(4)(iv) and the guidance provided in RIS 2004-12, Exelon requested NRC approval to use a specific provision of a later addenda of the ASME OM Code for TMI-1. Specifically, the licensee proposed to use the ASME OM Code, 2004 Edition through the 2006 Addenda, Paragraph ISTB-3510, "General" requirements for pump data collection. Subparagraph ISTB-3510(b)(2) allows pump inservice testing reference values up to 90 percent of the calibrated range of digital instruments. ASME Code Case OMN-6, "Alternate Rules for Digital Instruments," allows the reference value to be up to 90 percent of the instrument range and was issued by ASME and approved by the NRC in Regulatory Guide (RG) 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code," dated June 2003. However, the code case is applicable to the 1990-1997 Editions of the OM Code, whereas TMI-1 uses the 1998 Edition through the 2000 Addenda. Therefore, this code case does not apply to the fourth IST program interval at TMI-1. RG 1.192 has not yet been revised to approve an updated version of OMN-6. The provisions of Code Case OMN-6 have since been incorporated into the OM Code, beginning in the Omb-2006 Addenda which has been approved for use by the NRC.

3.2 NRC Staff Evaluation

The current code of record for the TMI-1 IST Program is the 1998 Edition through 2000 Addenda of the ASME OM Code. Subparagraph ISTB-3510(b) of the current code requires that digital instruments for pump testing shall be selected such that the reference value does not exceed 70 percent of the calibrated range of the instrument. Subparagraph ISTB-3510(b) was revised in the 2006 Addenda of the OM Code, which allows the reference value to be up to 90 percent of the instrument range. In 2012, the 2004 Edition through 2006 Addenda of the ASME OM Code was incorporated by reference into 10 CFR 50.55a.

The licensee has requested approval to test all pumps in the IST program at TMI-1 in accordance with Subparagraph ISTB-3510(b)(2) of the 2004 Edition through 2006 Addenda of the ASME OM Code. The NRC staff has determined that there are no limitations or modifications imposed by 10 CFR 50.55a(b)(3) on the use of the 2004 Edition through 2006 Addenda of the ASME OM Code for Subparagraph ISTB-3510(b). Additionally, the NRC staff has not identified any additional related requirements in the 2004 Edition through 2006 Addenda of the OM Code that need to be met in order to implement Subparagraph ISTB-3510(b). Based on the NRC's approval via 10 CFR 50.55a of this provision of the OM Code, and the absence of any related requirements, the request presented in LE-01 for testing all pumps in the TMI-1 IST program is acceptable.

4.0 CONCLUSION

As set forth above, the NRC staff has determined that the licensee's request, LE-01, to use Subparagraph ISTB-3510(b) of the 2004 Edition through 2006 Addenda of the ASME OM Code for testing all pumps in the IST program for the remainder of the fourth 10-year IST interval at TMI-1 is acceptable. Further, the NRC staff concludes that the licensee has adequately

addressed all of the regulatory requirements set forth in 10 CFR 50.55a(f)(4)(iv), and is in compliance with the ASME OM Code's requirements, as they relate to this request. Therefore, the NRC staff approves the request, LE-01, for the remainder of the TMI-1 fourth 10-year IST interval, which commenced on September 23, 2004, and ends on October 14, 2013.

Principal Contributor: J. Huang

Date: May 12, 2013

M. Pacilio

- 2 -

Please contact Peter Bamford at 301-415-2833, if you have any questions.

Sincerely,

/ra/

Meena Khanna, Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-289

Enclosure:
Safety Evaluation

cc: Distribution via Listserv

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