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10 CFR 50.55a

TMI-09-036
March 6, 2009

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Three Mile Island, Unit 1
Facility Operating License No. DPR-50
NRC Docket No. 50-289

Subject:: Request to Use a Provision of a Later Addenda of the ASME Boiler and Pressure Vessel Code, Section XI

Reference: NRC Regulatory Issue Summary 2004-12, "Clarification on Use of Later Editions and Addenda to the ASME OM Code and Section XI," dated July 28, 2004

In accordance with 10 CFR 50.55a, "Codes and standards," paragraph (g)(4)(iv), and the guidance provided in the reference document, Exelon Generation Company, LLC (EGC) requests NRC approval to use a specific provision of a later addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, for Three Mile Island (TMI), Unit 1. Specifically, EGC desires to use the ASME Code, Section XI, 1995 Edition including Addenda through 1997, IWA-4461, "Thermal Removal Processes," where thermal removal methods can be used without subsequent mechanical processing being required. Similar provisions do not exist in IWA-4611.2, "Thermal Removal Processes," of ASME B&PV Code, Section XI, 1995 Edition, including 1996 Addenda, which is the current code of record for TMI-1.

The use of the later addenda of the ASME B&PV Code Section XI is requested for the specific project to mitigate the current Alloy 600/82/182 thermowell and install a new equivalent thermowell at another location on the TMI, Unit 1 pressurizer.

EGC requests approval of this request by September 15, 2009 in order to support Fall 2009 outage work on the TMI, Unit 1 pressurizer.

There are no regulatory commitments in this letter.

If you have any questions concerning this letter, please contact Tom Loomis at (610) 765-5510.

Respectfully,

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Pamela B. Cowan
Director - Licensing & Regulatory Affairs
Exelon Generation Company, LLC

Attachment: Request to Use a Provision of a Later Addenda of the ASME B&PV Code, Section XI

cc: S. J. Collins, Regional Administrator, Region I, USNRC
D. M. Kern, USNRC Senior Resident Inspector, TMI
P. J. Bamford, USNRC Project Manager

ATTACHMENT

Request to Use a Provision of a Later Addenda of the ASME B&PV Code, Section XI

In accordance with 10 CFR 50.55a, "Codes and standards," paragraph (g)(4)(iv) and the guidance provided in Reference 6a, Exelon Generation Company, LLC (EGC) requests NRC approval to use specific provisions of a later addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, for Three Mile Island (TMI), Unit 1. Specifically, EGC proposes to use the ASME B&PV Code, Section XI, 1995 Edition including Addenda through 1997, IWA-4461, "Thermal Removal Processes."

During the upcoming Fall 2009 refueling outage, TMI, Unit 1 is currently planning to mitigate the pressurizer thermowell. Access to the existing partial penetration welded Alloy 600/82/182 thermowell is very limited, and complete replacement of the existing thermowell from the exterior of the pressurizer is not currently possible. Due to ALARA dose concerns it is highly desirable to perform all work from the exterior of the pressurizer. The current thermowell will be cut at the outside surface of the pressurizer and capped on the exterior with Primary Water Stress Corrosion Cracking (PWSCC) resistant material. A new PWSCC-resistant thermowell will be installed at a more accessible location.

The existing and new thermowell locations will require use of Electrodischarge Machining (EDM) because of the limited access at the existing thermowell and the need to prevent possible introduction of foreign material into the Reactor Coolant System (RCS) at the new thermowell location. The 1995 Edition with Addenda through 1996 requires mechanical metal removal subsequent to EDM metal removal processes. Mechanical metal removal of the EDM surface at the new thermowell location would likely result in the introduction of foreign material into the RCS. IWA-4461 of the 1997 Addenda of ASME Section XI provides an alternative to mechanical metal removal based on process qualification (IWA-4461.4). The 1997 Addenda of Section XI was chosen to assure all related requirements could be met, as required by IWA-4150(b).

1. ASME Code Component(s) Affected:

   The TMI, Unit 1 pressurizer and associated thermowell are ASME Class 1 components.

2. Applicable Code Edition and Addenda:

   The current code of record for the TMI, Unit 1 Inservice Inspection Program is the ASME B&PV Code, Section XI, 1995 Edition, including 1996 Addenda.

3. Proposed Subsequent Code Edition and Addenda (or Portion):

   EGC proposes to use the ASME B&PV Code, Section XI, 1995 Edition including 1997 Addenda, IWA-4461, "Thermal Removal Processes."

4. Related Requirements:

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 (b) of this section, subject to the limitations and modifications 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."*

10 CFR 50.55a(b)(2) incorporated by reference Section XI, Division 1, of the ASME B&PV Code, 1997 Addenda, 1998 Edition, 1999 Addenda, and 2000 Addenda as approved in Reference 6b. There are no limitations or modifications in 10 CFR 50.55a(b)(2) related to IWA-4461, "Thermal Removal Processes," for the 1995 Edition, including 1997 Addenda of Section XI.

5. Duration of Proposed Request:

The 1997 Addenda of ASME Section XI, IWA-4461 will be limited to modification of the existing pressurizer thermowell and installation of the new pressurizer thermowell only.

6. References:

a. NRC Regulatory Issue Summary 2004-12, "Clarification on Use of Later Editions and Addenda to the ASME OM Code and Section XI," dated July 28, 2004

b. Federal Register, 67 FR 60520, dated September 26, 2002