

December 18, 2001

Mr. Oliver D. Kingsley, President  
and Chief Nuclear Officer  
Exelon Nuclear  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION - ALTERNATIVE TO  
AMERICAN SOCIETY OF MECHANICAL ENGINEERS BOILER AND  
PRESSURE VESSEL CODE (ASME CODE), SECTION XI INSERVICE  
INSPECTION PROGRAM RELATED TO THE QUALIFICATION OF VT-2  
EXAMINATION PERSONNEL (TAC NO. MB1746)

Dear Mr. Kingsley:

By letter dated April 11, 2001, as supplemented on July 2, 2001, AmerGen Energy Company, LLC (AmerGen) submitted a proposed alternative related to the qualification of VT-2 examination personnel for the Inservice Inspection (ISI) program at the Oyster Creek Nuclear Generating Station (Oyster Creek).

AmerGen proposes to use Code Case N-546, "Alternative Requirements for Qualification of VT-2 Examination Personnel," instead of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," 1986 Edition, Subarticle IWA-2300. The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the alternative request.

Based on the information provided, the NRC staff concludes that the alternative proposed by AmerGen to ASME Code, Section XI, 1986 Edition, Subarticle IWA-2300 will provide an acceptable level of quality and safety. Therefore, pursuant to 10 CFR 50.55a(a)(3)(i), the NRC staff authorizes the ISI program alternative proposed in Code Case N-546. The NRC staff's safety evaluation is enclosed.

If you have any questions, please contact Helen N. Pastis, Senior Project Manager, at (301) 415-1261.

Sincerely,

/RA/

L. Raghavan, Acting Chief, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-219

Enclosure: Safety Evaluation  
cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

INSERVICE INSPECTION RELIEF REQUEST NO. 26

AMERGEN ENERGY COMPANY, LLC

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

1.0 INTRODUCTION

The inservice inspection (ISI) of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Class 1, Class 2, and Class 3 components is to be performed in accordance with Section XI of the ASME Code and applicable editions and addenda as required by Title 10 of the *Code of Federal Regulations*, (10 CFR) Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55a(g)(6)(i). Pursuant to 10 CFR 50.55a(a)(3), alternatives to the requirements of paragraph (g) may be used, when authorized by the U.S. Nuclear Regulatory Commission (NRC), if the licensee demonstrates that: (i) the proposed alternatives would provide an acceptable level of quality and safety, or (ii) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Pursuant to 10 CFR 50.55a(g)(4), 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 the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during the first 10-year interval and subsequent intervals comply with the requirements in the latest edition and addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b) on the date twelve months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein. The inservice inspection Code of record for Oyster Creek Nuclear Generating Station's (Oyster Creek) third 10-year ISI interval is the 1986 Edition of Section XI of the ASME Code.

By letter dated April 11, 2001, as supplemented July 2, 2001, the AmerGen Energy Company, LLC, (AmerGen or the licensee), requested relief (Relief Request No. 26) from the training and experience requirements (qualifications) for visual examiners for leak tests (VT-2). The letter dated July 2, 2001, provided additional clarification to two aspects of the relief request.

Enclosure

## 2.0 RELIEF REQUEST NO. 26, QUALIFICATIONS FOR VT-2 PERSONNEL PERFORMING LEAK TESTS ON ASME CLASS 1, 2, AND 3 PRESSURE RETAINING COMPONENTS

### 2.1 ASME Code Requirements for which Relief is Requested (as stated)

ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," 1986 Edition, Subarticle IWA-2300, requires that personnel performing VT-2 and VT-3 visual examinations be qualified in accordance with comparable levels of competency as defined in ANSI N45.2.6. Additionally, the examination personnel shall have natural or corrected near distance vision acuity, in at least one eye equivalent to a Snellen fraction of 20/20. For far vision, personnel shall have natural or corrected far distance visual acuity of 20/30 or equivalent.

### 2.2 Licensee's Proposed Alternative to ASME Code

AmerGen requests to implement Code Case N-546, "Alternative Requirements for Qualification of VT-2 Examination Personnel," which is not yet approved by the NRC in 10 CFR 50.55a. AmerGen includes as part of the alternative qualification requirements of Code Case N-546, initial testing and subsequent periodic testing on a 2- to 3-year frequency.

### 2.3 Licensee's Basis for Relief (as stated)

Pursuant to 10 CFR 50.55a(a)(3)(i), relief is requested on the basis that the proposed alternative provides an acceptable level of quality and safety. Section XI currently requires personnel conducting VT-2 inspections to be qualified and certified to comparable levels of qualifications as defined in SNT-TC-1A and the Employer's written practice. However, unlike the nondestructive testing methods addressed within SNT-TC-1A, or VT-1 and VT-3 examination methods, VT-2 examinations do not require a special knowledge of underlying technical principals [principles] to perform the examination. It is a straightforward examination to look for evidence of leakage or structural distress. No special skills or technical training are required in order to observe water dripping from a component or bubbles forming on a wetted joint. As such, VT-2 personnel need not be subjected [subject] to the same qualification and certification requirements that were established for nondestructive testing personnel. Code Case N-546 provides appropriate requirements for the qualification and certification of VT-2 examination personnel. Code Case N-546 requires that personnel performing VT-2 visual inspections have at least forty (40) hours of plant walkdown experience, receive a minimum of four (4) hours of training on Section XI requirements, and pass the vision test requirements of IWA-2321, 1995 [IWA-2300, 1986] Edition. This alternative to existing Code requirements reduces the administrative burden on maintaining a Section XI certification program for VT-2 examiners. This allows the use of personnel most familiar with walkdowns of plant systems, such as licensed and non-licensed operators, local leak rate test personnel, system engineers and examination

personnel. The qualification of VT-2 examinations will be maintained by using the alternative qualification criteria in the Code Case N-546.

## 2.4 Evaluation

10 CFR 50.55a(a)(3)(i) allows alternatives to be authorized by the NRC provided the proposed alternative provides an acceptable level of quality and safety. Code Case N-546 is proposed by the licensee in lieu of the requirements of IWA-2300 for nondestructive examination personnel. This Code Case is provided as an alternative methodology to ANSI/ASNT CP-189 for qualification of VT-2 examination personnel only.

For the purpose of performing VT-2 visual examinations, the alternate qualification requirements in Code Case N-546 plus the licensee's commitments are comparable to those of the ASME Code, Section XI, paragraph IWA-2300, for VT-2 visual examination personnel qualification for the following reasons: the far distance visual acuity capability required by the Code is reflected within Code Case N-546, the 4 hours of periodic training and 40 hours of plant walkdown experience is appropriate training/experience for an individual to perform only VT-2 leak examinations, the licensee has clarified their request for relief to comply with the 1995 Edition of ASME Section XI for eye examination of personnel and the licensee has committed to initial qualification testing and to requalify personnel on a 2- to 3-year cycle.

ANSI/ASNT CP-189 does not make a distinction for VT-2 examination personnel qualification. This document lists the qualification requirements for all visual examination personnel which include VT-2. As such, the ANSI/ASNT CP-189 cumulative hours are listed as 20 hours training and 195 hours experience required to attain Level II status which is necessary to perform any nondestructive test in the field without direct supervision. This gives an individual the certification to perform visual examinations (VT-1, 2, 3, and 4) for a variety of needs and components such as hangers, valves, snubbers, welds and leak examinations. This required training is in excess of the needs of the licensee to have individuals qualified only to perform VT-2 leak examinations.

The Code Case states that licensed and non-licensed operators, local leak rate personnel, system engineers, inspection and nondestructive examination personnel may be eligible if they possess at least 40 hours of plant walkdown experience. In this case, the 40 hours of plant walkdown experience and 4 hours of training is a reasonable amount of background in qualifications for an individual to be certified to perform an unsupervised VT-2 examination in the field.

AmerGen's letter dated July 2, 2001, further clarifies that the licensee will comply with the year and addenda stated in the Code Case for the personnel vision test requirement and that after initial qualification testing, they will be retesting their individuals every 2 to 3 years. This clarification provides the assurance that the testing personnel will remain current in their visual acuity and nondestructive testing skills.

## 3.0 CONCLUSION

Based on the discussion above, the staff concludes that the alternate qualification requirements in Code Case N-546, along with AmerGen's commitment to perform initial qualification testing and periodic recertification of VT-2 personnel, are acceptable for the purpose of performing VT-2 examinations only. AmerGen's commitment in their July 2, 2001, letter provides assurance that the training and visual acuity of the personnel will remain current and consequently will provide an acceptable level of quality and safety. Therefore, pursuant to 10 CFR 50.55a(a)(3)(i), the proposed alternative Relief Request No. 26 is authorized for the third 10-year ISI interval.

Principal Contributors: T. K. Steingass  
H. N. Pastis

Date: December 18, 2001