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

January 24, 2012

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

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION - RELIEF FROM THE REQUIREMENTS OF THE ASME CODE, RELIEF REQUEST NO. VR-02 FOR FIFTH INSERVICE TESTING INTERVAL (TAC NO. ME7618)

Dear Mr. Pacilio:

By letter dated November 17, 2011 (Agencywide Documents and Access Management System Accession No. ML113250626), Exelon Nuclear submitted relief request VR-02 for Oyster Creek Nuclear Generating Station (OCNGS) during the fifth Inservice Testing (IST) interval, requesting the use of an alternative to certain requirements of the American Society of Mechanical Engineers (ASME) *Code for Operation and Maintenance of Nuclear Power Plants* (OM Code).

Specifically, pursuant to Title 10 of the *Code Federal Regulations* (10 CFR) Section 50.55a(a)(3)(i), the licensee requested to use the proposed alternative on the basis that the alternative provides an acceptable level of quality and safety.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the subject request and has concluded, as set forth in the enclosed safety evaluation, that the proposed alternative described in Request VR-02 provides an acceptable level of quality and safety for the valves listed in the enclosed safety evaluation. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(a)(3)(i), and is in compliance with the ASME OM Code's requirements. All other ASME OM Code requirements for which relief was not specifically requested and approved in the subject request remain applicable.

Therefore, the NRC staff authorizes the alternative described in Relief Request VR-02 for the fifth IST interval at OCNGS, which will begin on October 14, 2012, and ends on October 13, 2022.

If you have any questions regarding this matter, please contact Senior Project Manager, John G. Lamb at (301) 415-3100 or by e-mail at John.Lamb@nrc.gov.

Sincerely,

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

Docket No. 50-219

Enclosure: Safety Evaluation

cc w/enclosure: Distribution via Listserv

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST FOR RELIEF, VR-02

FIFTH INSERVICE TESTING INTERVAL

OYSTER CREEK NUCLEAR GENERATING STATION

EXELON NUCLEAR

DOCKET NO. 50-219

1.0 INTRODUCTION

By letter dated November 17, 2011 (Agencywide Documents and Access Management System Accession No. ML113250626), Exelon Nuclear (Exelon or licensee) submitted relief request VR-02 for Oyster Creek Nuclear Generating Station (OCNGS) during the fifth Inservice Testing (IST) interval, requesting the use of an alternative to certain requirements of the American Society of Mechanical Engineers (ASME) *Code for Operation and Maintenance of Nuclear Power Plants* (OM Code).

The licensee proposed an alternative testing method and acceptance criteria for the following containment isolation valves (CIVs):

- V-23-13, Drywell Nitrogen Purge Inlet Pressure Control Valve
- V-23-14, Drywell Nitrogen Purge Inlet Pressure Control Valve
- V-23-15, Torus Nitrogen Purge Inlet Pressure Control Valve
- V-23-16, Torus Nitrogen Purge Inlet Pressure Control Valve
- V-23-18, Drywell Make-up Nitrogen Purge Inlet Valve
- V-23-20, Drywell Nitrogen Relief Vent Valve
- V-23-21, Drywell Nitrogen Relief Vent Valve
- V-27-1, Drywell Ventilation Isolation Valve
- V-27-2, Drywell Ventilation Isolation Valve
- V-27-3, Drywell Purge Isolation Valve
- V-27-4, Drywell Purge Isolation Valve
- V-28-17, Torus Vent Exhaust Valve
- V-28-18, Torus Vent Exhaust Valve
- V-28-47, Torus Vent Exhaust Bypass Valve
- V-5-147, Drywell Inlet Isolation Valve for Reactor Building Closed Cooling Water System
- V-5-166, Drywell Cooler Outlet Header and Recirculation Pump Isolation Valve

- V-5-167, Drywell Outlet Isolation Valve

Specifically, pursuant to Title 10 of the *Code Federal Regulations* (10 CFR) Section 50.55a(a)(3)(i), the licensee requested to use the proposed alternative on the basis that the alternative provides an acceptable level of quality and safety.

2.0 REGULATORY EVALUATION

Section 50.55a(f) of 10 CFR, "Inservice Testing Requirements," requires in part, that IST of certain ASME Code Class 1, 2, and 3 pumps and valves be performed in accordance with the specified ASME Code and applicable addenda incorporated by reference in the regulations. In proposing alternatives or requesting relief under 10 CFR 50.55a(a)(3)(i), the licensee must demonstrate that the proposed alternatives provide an acceptable level of quality and safety. Section 50.55a allows the U.S. Nuclear Regulatory Commission (NRC) to authorize alternatives and to grant relief from ASME OM Code requirements upon making necessary findings. NRC guidance contained in Generic Letter (GL) 89-04, "Guidance on Developing Acceptable Inservice Testing Programs," provides acceptable alternatives to ASME Code requirements. Further guidance is given in GL 89-04, Supplement 1, and NUREG-1482, Revision 1, "Guidance for Inservice Testing at Nuclear Power Plants." ASME OM Code cases that are approved for use by the NRC are listed in Regulatory Guide (RG) 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code," dated June 2003 (10 CFR 50.55a(b)(6)).

The Code of Record for OCNGS is the ASME OM Code, 2004 Edition with Addenda through OMb-2006, as required by 10 CFR 50.55a(f)(4)(ii). The OCNGS fifth IST interval will begin on October 14, 2012, and ends on October 13, 2022.

The NRC's findings with respect to authorizing the proposed alternative to the ASME OM Code are given below in the Technical Evaluation and Conclusion.

3.0 TECHNICAL EVALUATION

3.1 Alternative Request VR-02

3.1.1 Licensee's Relief Request and Proposed Alternative

According to OM Code ISTC-3700, valves with remote position indicators shall be observed locally at least once every 2 years to verify that valve operation is accurately indicated.

The licensee proposed that the position indicators for the above valves will be verified at least once every 2 years; however, in lieu of local observation, the following method will be used to verify accurate position indication: (1) Proper system operation will verify accurate open position indication, and (2) successful leak rate test results each refueling outage (RFO) will verify accurate closed indication. These containment isolation valves are not on an extended 10 CFR 50, Appendix J, Option B test frequency.

According to the licensee, using the provisions of this relief request as an alternative to local observation of valve position per ISTC-3700 is consistent with Section 4.2.7 of NUREG-1482, Rev. 1 and provides an acceptable level of quality and safety without needlessly exposing plant personnel to high levels of radiation. Furthermore, using measurable system parameters to confirm valve position often provides better assurance of stem-disc integrity, according to the licensee.

3.1.2 NRC Staff Evaluation

OM Code ISTC-3700 requires that valves with remote position indicators be observed locally at least once every 2 years to verify that valve operation is accurately indicated. However, for the above CIVs at OCNGS, it would be difficult for the licensee to verify the remote position indication by local observation because these valves are located in high radiation areas and this means testing would result in unnecessary radiation exposure to personnel. In order to reduce unnecessary radiation exposure to plant personnel, the licensee proposed to verify valve open position by system operation and close position by leak rate test.

As discussed in Section 4.2.7 of NUREG-1482, methods other than local observation, such as nonintrusive techniques, causing the flow to begin or cease, leak testing, and pressure testing can also yield a positive indication of the valve position. As such, the NRC staff considers that observation of operational parameters such as leakage, pressure, and flow is an acceptable approach and consistent with OM Code ISTC-3700. The licensee's proposed alternative of verifying the valve's open position by system operation and its closed position by leak-rate test is consistent with NUREG-1482, provides an acceptable level of safety and quality, and is, therefore, acceptable.

4.0 CONCLUSION

As set forth above, the NRC staff finds that the proposed alternative described in Relief Request VR-02 provides an acceptable level of quality and safety for the CIVs listed above. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(a)(3)(i), and is in compliance with the ASME OM Code's requirements. All other ASME OM Code requirements for which relief was not specifically requested and approved in the subject request remain applicable.

Therefore, the NRC staff authorizes the alternative described in Relief Request VR-02 for the OCNGS fifth IST program interval, which will begin on October 14, 2012, and ends on October 13, 2022.

Principle Contributor: John Billerbeck

Date: January 24, 2012

If you have any questions regarding this matter, please contact Senior Project Manager, John G. Lamb at (301) 415-3100 or by e-mail at John.Lamb@nrc.gov.

Sincerely,

/RA/

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

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