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

September 24, 2009

Vice President, Operations
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NO. 3 - RELIEF FROM THE REQUIREMENTS OF THE ASME CODE (TAC NO. ME1573)

Dear Sir or Madam:

By letter dated June 24, 2009, Entergy Nuclear Operations, Inc. (the licensee) submitted a request to the Nuclear Regulatory Commission (NRC) for the use of an alternative to certain American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI requirements at Indian Point Nuclear Generating Unit No. 3 (IP3). The licensee submitted Relief Request IP3-ISI-RR-01 for IP3 to use ASME Code Case N-753, "Vision Tests," to permit health care professionals who administer vision tests to perform vision tests which demonstrate visual acuity of nondestructive examination personnel. Pursuant to Title 10 of the *Code of 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 NRC staff has reviewed the licensee's submittal and, as set forth in the enclosed safety evaluation, determined that the proposed alternative provides equivalent measures of visual acuity examinations and an acceptable level of quality and safety. Therefore, pursuant to 10 CFR 50.55a(a)(3)(i), the NRC staff authorizes the use of Relief Request IP3-ISI-RR-01.

If you have any questions, please contact the Indian Point project manager, John Boska, at (301) 415-2901.

Sincerely,

Nancy L. Salgado

Nancy L. Salgado, Chief
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosure:
As stated

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UNITED STATES
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELIEF REQUEST NO. IP3-ISI-RR-01

ENTERGY NUCLEAR OPERATIONS, INC.

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

DOCKET NO. 50-286

1.0 INTRODUCTION

By letter dated June 24, 2009, Agencywide Documents Access and Management System (ADAMS) Accession No. ML091820325, Entergy Nuclear Operations, Inc. (the licensee) submitted a request to the Nuclear Regulatory Commission (NRC) for the use of an alternative to certain American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI requirements at Indian Point Nuclear Generating Unit No. 3 (IP3). The licensee submitted Relief Request IP3-ISI-RR-01 for IP3 to use ASME Code Case N-753, "Vision Tests," to permit health care professionals who administer vision tests to perform vision tests which demonstrate visual acuity of nondestructive examination (NDE) personnel. Pursuant to Title 10 of the *Code of 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 REQUIREMENTS

The inservice inspection (ISI) of the ASME Code Class 1, 2, and 3 components must meet the requirements of Section XI of the ASME Code and Addenda as required by 10 CFR 50.55a(g), "Inservice inspection requirements." Section 50.55a(g)(4) of 10 CFR Part 50 states that throughout the service life of a nuclear power facility, components (including supports) which are classified as ASME Code Class 1, 2, and 3 must meet the requirements, except design and access provisions and preservice examination requirements, set forth in Section XI of the ASME Code, to the extent practical within the limitations of design, geometry and materials of construction of the components. Pursuant to 10 CFR 50.55a(g)(4)(ii), inservice examination of components and system pressure tests conducted during successive 120-month inspection intervals must comply with the requirements in the latest edition and addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(b), 12 months before the start of the 120-month inspection interval, subject to the limitations and modifications listed therein. In accordance with this requirement, the ASME Code of record for the fourth 10-year ISI interval at IP3, which began on July 21, 2009, and extends through July 20, 2019, is the ASME Code, Section XI, 2001 Edition with the 2003 Addenda.

Enclosure

Pursuant to 10 CFR 50.55a(g)(6)(i), a licensee may obtain relief from these ISI requirements when written relief is granted by the NRC. Pursuant to 10 CFR 50.55a(a)(3), alternatives to the requirements of paragraph (g) may be used, when authorized by the NRC, if (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.

3.0 LICENSEE'S PROPOSED ALTERNATIVE

3.1 ASME Code Requirements from which Relief is Requested

ASME Code, Section XI, 2001 Edition through 2003 Addenda, paragraph IWA-2321(a) requires that the following test be administered annually to NDE personnel:

"Personnel shall demonstrate natural or corrected near-distance acuity of 20/25 or greater Snellen fraction, with at least one eye, by reading words or identifying characters on a near-distance test chart, such as a Jaeger chart, that meets the requirements of IWA-2322. Equivalent measures of near-distance acuity may be used. In addition, personnel performing VT-2 or VT-3 visual examinations shall demonstrate natural or corrected far-distance acuity of 20/30 or greater Snellen fraction or equivalent with at least one eye."

3.2 Licensee's Reason for Request (as stated by the licensee)

The use of ASME Code Case N-753 alternative requirements allows the flexibility for utilities to accept visual acuity testing performed by outside health care professional in lieu of the visual acuity testing performed by in-house personnel. In many instances, this flexibility will eliminate duplicate testing and thus provide a reduction in the costs and manpower associated with qualifying NDE personnel.

3.3 Licensee's Proposed Alternative and Basis for use (as stated by the licensee)

Code Case N-753 provides an alternative to the visual acuity demonstration requirements of IWA-2321(a) that will allow the testing to be administered and documented by an optometrist, ophthalmologist, or other health care professional who administers vision tests.

The visual acuity testing for NDE personnel performing ASME Code, Section XI examinations is required to be administered annually. In addition to this visual acuity testing, which is typically administered by utility personnel, many NDE personnel also have annual visual acuity testing in conjunction with routine eye examinations administered by an optometrist, an ophthalmologist, or other health care professional who administers vision tests.

Optometrists, ophthalmologists, and other health care professionals who administer vision tests are typically educated and experienced in the proper techniques for vision testing, such as the Snellen fraction or Jaeger-chart methods required by ASME Code, Section XI. This training and expertise provides a sound level of confidence that the visual acuity testing administered will be a reliable indicator that the tested NDE personnel can satisfactorily perform Section XI NDEs.

The testing performed by optometrists, ophthalmologists, and other health care professionals who administer vision tests will satisfy IWA-2321(a) requirements, including documentation which details the tests performed, compliance with IWA-2321(a) criteria and the date the testing was administered.

Because Code Case N-753 does not change the qualification criteria in IWA-2321(a), the implementation of the included alternative requirements does not affect the level of quality or safety provided by NDE personnel.

3.4 Duration of the Alternative

Entergy requested approval of this alternative for the fourth 10-year ISI interval at IP3, which began July 21, 2009, and ends July 20, 2019.

4.0 NRC STAFF EVALUATION OF ALTERNATIVE

The requirements of ASME Code, Section XI, paragraph IWA-2321(a) call for personnel performing NDE examinations to have an annual visual acuity examination. The NDE personnel taking the visual acuity examination shall be able to demonstrate natural or corrected near-distance acuity of 20/25 or greater Snellen fraction with at least one eye. In addition, personnel performing VT-2 or VT-3 visual examinations shall demonstrate natural or corrected far-distance acuity of 20/30 or greater Snellen fraction or equivalent with at least one eye.

The visual acuity examinations can be performed in-house by the licensee's NDE Level III personnel in order to meet the Code requirements. Pursuant to ASME Code, Section XI, Appendix VI, paragraph 3300, an outside agency, defined as an organization or individual that provides NDE Level III or Instructor services, may be used to administer visual acuity examinations when the organization that engages the outside agency qualifies that agency. An independent optometrist or ophthalmologist performing visual acuity tests as routine eye examinations would not, in general, satisfy these requirements. ASME Code Case N-753 allows a vision test administered by an optometrist, ophthalmologist, or other health care professional who administers vision tests and documents compliance with the acuity requirements of IWA-2321(a), to satisfy the visual acuity examination requirement for NDE personnel. The code case does not change the visual acuity requirements of IWA-2321(a), but provides an alternative qualified practitioner to perform the required visual acuity examinations. The NRC has not yet accepted ASME Code Case N-753 in Regulatory Guide (RG) 1.147. Revisions to RG 1.147, after incorporation by reference in 10 CFR 50.55a, provide the list of NRC-approved ISI Code Cases.

A typical near-distance acuity test requires a person to cover one eye and read words or identify characters on a near-distance test chart, such as a Jaeger chart, that meets the requirements of IWA-2322. The eye-to-chart test distances, and corresponding character heights, provide a visual angle of 6.25 minutes. The ability to read these characters or words demonstrates a near-distance acuity of 20/25 or greater Snellen fraction. A typical far-distance acuity test requires a person to cover one eye, and identify characters on a far-distance test chart, such as a Snellen chart. The ability to recognize the characters on the 20/30 line of the Snellen chart from the specified distance, usually 20 feet, demonstrates a far-distance visual acuity of 20/30 or greater Snellen fraction. Each of these visual acuity tests is highly standardized, and the appropriate charts and test protocols are readily available.

The licensee stated that many NDE personnel take annual visual acuity tests as routine eye examinations performed by an optometrist, ophthalmologist, or other health care professional who administers vision tests. The NRC staff considered the fact that eye care professionals must go through education, certification, and are subject to regulated practice that has requirements for training on the standards of eye care. In addition, these visual acuity tests are highly standardized, and the appropriate charts and test protocols are readily available. The staff finds that there is sufficient evidence to support the licensee's statement that health care professionals who perform such vision acuity examinations have the education and experience in the proper techniques to perform such examinations with an acceptable level of quality and safety.

5.0 CONCLUSION

Based on the above evaluation, the NRC staff concludes that the licensee's proposed alternative, to use the provisions of ASME Code Case N-753 to allow vision tests administered by an optometrist, ophthalmologist, or other health care professional who administers vision tests, and documents compliance with the acuity requirements of IWA-2321(a), will provide an acceptable level of safety and quality. Therefore, pursuant to 10 CFR 50.55a(a)(3)(i), the proposed alternative is authorized for the fourth 10-year ISI interval at IP3 or until Code Case N-753 is approved for general use by reference in RG 1.147. After that time, if the licensee wishes to continue to use Code Case N-753, the licensee must follow all conditions and limitations placed on the use of the code case, if any, that are specified in RG 1.147.

All other ASME Code requirements for which relief was not specifically requested and approved in this relief request remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

Principal Contributor: Jay Wallace

Date: September 24, 2009

If you have any questions, please contact the Indian Point project manager, John Boska, at (301) 415-2901.

Sincerely,

/RA/

Nancy L. Salgado, Chief
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
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