

July 27, 2001

Mr. A. Alan Blind  
Vice President, Nuclear Power  
Consolidated Edison Company  
of New York, Inc.  
Broadway and Bleakley Avenue  
Buchanan, NY 10511

SUBJECT: RELIEF REQUEST NO. 56 FROM AMERICAN SOCIETY OF MECHANICAL  
ENGINEERS BOILER AND PRESSURE VESSEL CODE SECTION XI, INDIAN  
POINT NUCLEAR GENERATING UNIT NO. 2 (TAC NO. MA9897)

Dear Mr. Blind:

In a letter dated August 30, 2000, as supplemented on October 30, 2000, and May 30, 2001, Consolidated Edison Company of New York, Inc. (Con Edison), submitted Relief Request No. 56 from the requirements of Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) for the third 10-year inservice inspection (ISI) interval at the Indian Point Nuclear Generating Unit No. 2 (IP2). Specifically, Con Edison requested authorization to use the alternative requirements of ASME Code Case N-546, "Alternative Rules for Qualification of VT-2 Examination Personnel."

The NRC staff reviewed the proposed alternative in Relief Request No. 56. The results are provided in the enclosed safety evaluation.

The NRC staff has concluded that the proposed alternative to the ASME Code requirements in Relief Request No. 56, supplemented by the additional provisions pertaining to testing and recertification of VT-2 examination personnel, provides an acceptable level of quality and safety and is acceptable. Pursuant to 10 CFR 50.55a(a)(3)(i), the proposed alternative is authorized for the third 10-year ISI interval at IP2.

If you should have any questions, please contact Patrick Milano at 301-415-1457. This completes the NRC staff's action on TAC No. MA9897.

Sincerely,

**/RA/**

Richard P. Correia, Acting Chief, Section 1  
Project Directorate 1  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-247

Enclosure: Safety Evaluation

cc w/encl: See next page

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Accession Number: ML011910362

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

THIRD 10-YEAR INTERVAL INSERVICE INSPECTION PROGRAM PLAN

REQUEST FOR RELIEF NO. 56

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

INDIAN POINT NUCLEAR GENERATING UNIT NO. 2

DOCKET NO. 50-247

1.0 INTRODUCTION

Inservice inspection (ISI) of the American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components is performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code (ASME Code) and applicable addenda as required by 10 CFR 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55a(g)(6)(i). 10 CFR 50.55a(a)(3) states that 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.

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the requirements, except the design and access provisions and the pre-service examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection (ISI) 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) twelve months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein. The Code of record for the third 10-year ISI interval at the Indian Point Nuclear Generating Unit No. 2 (IP2) is the 1989 Edition of the ASME Code.

By letter dated August 30, 2000, as supplemented on October 30, 2000, and May 30, 2001, Consolidated Edison Company (the licensee) requested relief from certain nondestructive examination requirements in ASME Code, Section XI, for IP2. The licensee requested that the U.S. Nuclear Regulatory Commission (NRC) authorize the use of an alternative as stated in its Request for Relief No. 56 to certain ISI requirements for the third 10-year ISI interval. The staff has reviewed and evaluated the information provided by the licensee.

## 2.0 LICENSEE'S RELIEF REQUEST NO. 56

### The components for which relief is requested:

ASME Code Class 1, 2, and 3 components subject to VT-2 visual examinations.

### Applicable Code requirement from which relief is requested:

Subsection IWA-2300 of ASME Code Section XI requires personnel performing VT-2 visual examinations to be qualified in accordance with ASNT SNT-TC-1A.

### Licensee's Proposed Alternative Examination:

The licensee proposes to use the alternative requirements of Code Case N-546, supplemented with additional specific requirements, in lieu of the requirements of IWA-2300 for qualification of VT-2 visual examination personnel. The alternative requirements of Code Case N-546 are:

- a. At least 40 hours plant walkdown experience, such as that gained by licensed and non-licensed operators, local leak rate personnel, system engineers, and inspection and nondestructive examination personnel,
- b. At least four (4) hours of training on ASME Section XI requirements and plant-specific procedures for VT-2 visual examinations, and
- c. Vision test requirements of IWA-2321, 1995 Edition of ASME Section XI.

In a letter dated May 30, 2001, the licensee added the following supplemental provisions when qualifying personnel in accordance with Code Case N-546:

- Qualify examination personnel by test to demonstrate knowledge of Section XI and plant-specific procedures for VT-2 visual examination.
- Re-qualify examination personnel in accordance with the frequency specified in IWA-2314, 1995 Edition with 1996 Addenda.

### Licensee's Basis for Relief Request (as stated):

ASME Section XI, 1989 Edition, Subsection IWA-2300 requires that VT-2 examination personnel be qualified to and certified in accordance with ASNT SNT-TC-1A. The Code also requires that the examination personnel be qualified for near and far distance vision acuity. This relief request proposes to use ASME Code Case N-546 which contains alternate requirements for the certification and qualification of VT-2 visual examination personnel. In addition to the 4 hours of training specified in Code Case N-546, subsequent testing to demonstrate knowledge of Section XI requirements and plant specific procedures for VT-2 visual examination shall be required. Furthermore, in order to maintain this qualification, these examination personnel shall be re-certified every 3 years. Consolidated Edison believes that this alternative is acceptable pursuant to 10 CFR 50.55a(a)(3)(i) as it will provide an acceptable level of quality and safety.

As stated in Code Case N-546, plant personnel (e.g., licensed and non-licensed operators, system engineers, and testing technicians) with the specific training and plant walkdown experience need not be qualified nor certified to ASNT SNT-TC-1A or ASNT CP-189 requirements. Experience in identifying equipment problems and knowledge of operating conditions will enhance the ability of plant personnel to locate leakage during VT-2 examinations. With the specified 4 hours of training, followed by subsequent testing to demonstrate knowledge of Section XI requirements and plant specific procedures for VT-2 examinations, the designated plant personnel will understand how leaks should be identified and documented and be fully capable of performing VT-2 examinations. In order to maintain this qualification, examination personnel shall be re-certified every 3 years.

Qualifying personnel for VT-2 examinations under Code Case N-546 is less burdensome than qualifying and maintaining the present VT-2 certification. Adopting this Code Case makes it feasible to train more people to perform these tasks. Furthermore, using personnel who are already required to perform functions in the plant will reduce the number of people required to enter into those areas that have radiological restrictions, resulting in fewer plant workers being exposed to potential radiation dose and keeping radiation exposure as low as reasonably achievable. Additionally, use of on-shift personnel will improve the process of returning systems to service. Prompt return of the safety systems to service will improve the safety of the plant and reduce risk to the public.

### 3.0 EVALUATION

The ASME Code, Section XI, IWA-2300, requires that personnel performing VT-2 visual examinations be qualified and certified in accordance with ASNT SNT-TC-1A. The ASME Code also requires that the examination personnel meet near and far distance vision acuity requirements. Pursuant to 10 CFR 50.55a(a)(3)(i), the licensee proposed to use Code Case N-546 in lieu of the requirements of IWA-2300 for VT-2 visual examination personnel.

The NRC staff considers the qualification requirements in Code Case N-546, along with the two supplemental provisions, to be comparable to those of the ASME Code, Section XI, paragraph IWA-2300, for VT-2 visual examination personnel. With regard to the selection of examination personnel, 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 certain plant walkdown experience. The staff agrees that personnel fulfilling these responsibilities and positions typically have a sound working knowledge of plant systems and components, and of piping layouts, making them knowledgeable candidates for performing VT-2 visual examinations. The Code Case also requires a vision test for examination personnel that is in accordance with the 1995 edition of the Code. The licensee also proposed that VT-2 visual examination personnel be required to demonstrate knowledge of Section XI and plant-specific procedures for VT-2 visual examinations and to demonstrate continued proficiency through periodic re-qualification every 3 years. The staff believes that periodic recertification is necessary to demonstrate continued qualification, and finds that recertification every 3 years is consistent with the frequency specified in IWA-2314 of the ASME Code 1995 Edition to 1996 Addenda. Therefore, for the purpose of performing VT-2 examinations, the staff finds the licensee's proposed alternative provides an acceptable level of quality and safety.



#### 4.0 CONCLUSION

On the basis of the above, the staff has determined that the proposed alternative in Relief Request No. 56 provides an acceptable level of quality and safety as compared to the requirements of the 1989 Edition of the ASME Code, Section XI, Subsection IWA-2300, when performing VT-2 examinations. Therefore, the staff concludes that the use of the licensee's alternative to implement Code Case N-546, supplemented with the additional provisions pertaining to testing and recertification of VT-2 examination personnel, for the performance of VT-2 examinations, is authorized pursuant to 10 CFR 50.55a(a)(3)(i) for the third 10-year ISI interval at IP2 or until such time Code Case N-546 is referenced in a future revision of Regulatory Guide (RG) 1.147, "Inservice Inspection Code Case Acceptability -- ASME Section XI, Division 1." At that time, if the licensee intends to continue to implement Code Case N-546, the licensee should follow all provisions in the subject code case with limitations (if any), listed in RG 1.147.

Principal Contributor: Z. Fu

Date: July 27, 2001