



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO A REQUEST TO USE AN ALTERNATIVE TO ASME CODE SECTION XI
SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3
DOCKET NOS. 50-361 AND 50-362

1.0 INTRODUCTION

The technical specifications for the San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 state that the inservice inspection of the American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel 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). Section 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 difficulties 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 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) 12 months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein. The applicable edition of Section XI of the ASME Code for SONGS Units 2 and 3 is the 1989 Edition with no addenda and the plants are in their second interval. If a licensee determines that conformance with certain code requirements is impractical for its facility, it may submit information pursuant to 10 CFR 50.55a(g)(5)(iii) to support the determination. Pursuant to 10 CFR 50.55a(g)(6)(i), the Commission will evaluate determinations of impracticality and may grant relief and impose alternative requirements as it determines are authorized by law and will not endanger life or property giving due consideration to the burden upon the licensee that could result if the requirements were imposed.

The components (including supports) may meet the requirements set forth in subsequent editions and addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(b) subject to the limitations and modifications listed therein and subject to Commission approval.

In a letter dated November 13, 1996, Southern California Edison (SCE) submitted to the NRC a request for relief related to the respective 10-year interval inservice inspection to implement Code Case N-546 "*Alternative Requirements for Qualification of VT-2 Examination Personnel, Section XI, Division 1,*" for SONGS Units 2 and 3. This request was supplemented by a letter dated June 9, 1998.

2.0 LICENSEE'S REQUEST FOR RELIEF

Code Requirement: Section XI, 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.

Licensee's Code Relief Request: The licensee has requested approval to implement alternatives to the Code requirements contained in Code Case N-546, *Alternative Requirement for Qualification of VT-2 Examination Personnel*, which is not yet approved by the NRC by reference in Regulatory Guide 1.147.

Licensee's Basis for Requesting Relief (as stated):

"By code Case N-546, the ASME committee has established alternative qualifications to current industry standards (i.e., ANSO N45.2.6, ANSI SNT-TC-1A, or ASNT CP-189) for VT-2 visual examination personnel. The proposed alternative qualifications provide an acceptable level of quality and safety. Specifically, the examination personnel will have at least 40 hours of plant walkdown experience, receive a minimum of four hours of training on Section XI requirements and plant specific procedures for VT-2 visual examinations, and will pass the vision test requirements of IWA-2321, 1995 edition.

This alternative to the requirements allows the Station to utilize other experienced plant personnel to perform VT-2 Examinations. The Code Case is offering specific relief in the certification process. Under the provisions of this Code Case, experienced plant personnel may be qualified as VT-2 examiners and the certification program administered in a simpler, routine manner. Additionally, the code currently requires 8 hours of training administered every three years. The Code Case requires that experienced plant personnel be trained for 4 hours. This is a sufficient amount of time to train experienced plant personnel in the special aspects of ASME Section XI."

Licensee's Proposed Alternative Examination (as stated):

"As specified in Code Case N-546, personnel shall be qualified in accordance with the following requirements:

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

3.0 EVALUATION

The Code requires that VT-2 visual examination personnel be qualified to comparable levels of competency as defined in ANSI N45.2.6. The Code also requires that the examination personnel be qualified for near and far distance vision acuity.

The qualification requirements in Code Case N-546 are comparable to those qualifications required for VT-2 visual examiner certification. Licensed and nonlicensed operators, local leak rate personnel, system engineers, and inspection and nondestructive examination personnel typically have a sound working knowledge of plant components and piping layouts. This knowledge makes them acceptable candidates for performing VT-2 visual examinations.

The licensee is implementing a program that documents the qualifications, training, and visual acuity of persons selected to perform the VT-2 visual examinations. In addition, in its June 9, 1998, submittal, the licensee stated that it would develop and implement formal procedures to ensure that consistent VT-2 examinations are performed and that evaluations of program effectiveness will be conducted by persons other than those that performed the VT-2 examinations. The licensee also indicated that it would document and maintain records to verify that the persons selected to conduct the examinations are qualified.

Based on a review of Code Case N-546, the staff believes that the alternatives to the Code qualification requirements for examination personnel, will provide an acceptable level of quality and safety in that persons will possess qualifications acceptable for performing VT-2 visual examinations. Therefore, SCE's request to implement alternatives contained in Code is acceptable.

4.0 CONCLUSION

The staff has reviewed the licensee's request to implement alternatives to Code requirements contained in Code Case N-546, "Alternative Requirement for Qualification of VT-2 Examination Personnel." The alternatives contained in Code Case N-546 will provide an acceptable level of quality and safety. Therefore, the licensee's request to implement alternatives contained in Code Case N-546 is hereby authorized pursuant to 10 CFR 50.55a(a)(3)(i). Use of Code Case N-546 is authorized for the current interval at the San Onofre Nuclear Generating Station, Units 2 and 3, until such time as the Code Case is approved by reference in Regulatory Guide 1.147. At that time, if the licensee intends to continue to implement this Code Case, the licensee is to follow all provisions in Code Case N-546 with limitations issued in Regulatory Guide 1.147, if any.

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Date: October 1, 1998