

September 29, 2006

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

**Subject: Docket Nos. 50-361 and 50-362
10 CFR 50.55a(a)(3)(i) Request For Authorization To
Utilize Code Case N-513-2; ISI-3-26
San Onofre Nuclear Generating Station (SONGS) Units 2 and 3**

Dear Sir or Madam:

Pursuant to 10 CFR 50.55a(a)(3)(i), Southern California Edison Company (SCE) requests Nuclear Regulatory Commission (NRC) approval of the enclosed relief request for the In-service Inspection Program for SONGS Units 2 and 3. Approval is requested to use the alternative requirements of Code Case N-513-2, "Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping," in lieu of certain American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, IWA-4000 requirements. The use of the proposed alternative will provide an acceptable level of quality and safety, as described in the Enclosure.

SCE is requesting to use Code Case N-513-2 under relief request ISI-3-26 until such time as the code case is published in Regulatory Guide 1.147. Upon incorporation into the Regulatory Guide, SCE will review and follow the conditions specified.

This letter contains no new commitments and no revisions to existing commitments. If you have any questions, please contact me.

Sincerely,



Enclosure:

cc: B. S. Mallett, Regional Administrator, NRC Region IV
N. Kalyanam, NRC Project Manager, San Onofre Units 2 and 3
C. C. Osterholtz, NRC Senior Resident Inspector, San Onofre Units 2 and 3

Enclosure

ISI-3-26

10 CFR 50.55a(a)(3)(i)

Request For Authorization To Utilize Code Case N-513-2

10 CFR 50.55a(a)(3)(i) Request For Authorization To Utilize Code Case N-513-2

1. **ASME Code Component(s) Affected:**

San Onofre Nuclear Generating Station (SONGS) Units 2 and 3, ASME Section XI, Moderate Energy Class 2 and Class 3 Piping

2. **Applicable ASME Section XI Code Edition and Addenda:**

1995 Edition through the 1996 Addenda

3. **Applicable Code Requirements**

CLASS 3

IWD-3000 states, "This Article is in course of preparation. The rules of IWB-3000 may be used."

IWB-3132 provides three ways in which an inservice volumetric or surface examination may be accepted.

1. IWB-3132.1, "Acceptance by Volumetric or Surface Examination",
2. IWB-3132.2, "Acceptance by Repair/Replacement Activity", or
3. IWB-3132.3, "Acceptance by Analytical Evaluation".

IWB-3132.2 states, "A component whose volumetric or surface examination detects flaws that exceed the acceptance standards of Table IWB-3410-1 is unacceptable for continued service until the additional examination requirements of IWB-2430 are satisfied and the component is corrected by a repair/replacement activity to the extent necessary to meet the acceptance standards of IWB-3000."

IWB-3142 provides four ways in which an inservice visual examination may be accepted.

1. IWB-3142.1, "Acceptance by Visual Examination"
2. IWB-3142.2, "Acceptance by Supplemental Examination"
3. IWB-3142.3, "Acceptance by Corrective Measures or Repair/Replacement Activity"
4. IWB-3142.4, "Acceptance by Analytical Evaluation"

IWB-3142.3 states, "A component containing relevant conditions is acceptable for continued service if the relevant conditions are corrected by a repair/replacement activity or by corrective measure to the extent necessary to meet the acceptance standards of Table IWB-3410-1."

10 CFR 50.55a(a)(3)(i) Request For Authorization To Utilize Code Case N-513-2**CLASS 2**

IWC-3122 provides three ways in which an Inservice Volumetric and Surface Examinations may be accepted.

1. IWC-3122.1, "Acceptance by Examination"
2. IWC-3122.2, "Acceptance by Repair/Replacement Activity"
3. IWC-3122.3, "Acceptance by Analytical Evaluation"

IWC-3122.2 states, "A component whose examination detects flaws that exceed the acceptance standards of Table IWC-3410-1 is unacceptable for continued service until the additional examination requirements of IWC-2430 are satisfied and the component is corrected by a repair/replacement activity to the extent necessary to meet the acceptance standards of IWC-3000." IWC-3132 provides four ways in which an inservice visual examination may be accepted.

1. IWC-3132, "Acceptance"
2. IWC-3132.1, "Acceptance by Supplemental Examination"
3. IWC-3132.2, "Acceptance by Corrective Measures or Repair/Replacement Activity"
4. IWC-3132.3, "Acceptance by Analytical Evaluation"

IWC-3132.2 states, "A component containing relevant conditions is acceptable for continued service if the relevant conditions are corrected by a repair/replacement activity or by corrective measures to the extent necessary to meet the acceptance standards of Table IWC-3410-1."

4. Reason for Request:

Relief is requested from replacement or internal weld repair of wall thinning conditions resulting from various wall thinning degradation mechanisms such as erosion, corrosion, cavitations, and pitting in moderate energy Class 2 and 3 piping systems in accordance with the design specification and the original construction code. The use of Code Case N-513-2 will provide an acceptable method to evaluate flaws on a temporary basis until the next scheduled outage.

5. Proposed Alternative and Basis for Use:

The Nuclear Regulatory Commission in Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability," Revision 14, has accepted Code Case N-513-1 with the following limitations:

1. Specific safety factors in paragraph 4.0 must be satisfied.
2. Code Case N-513 may not be applied to:
 - i. Components other than pipe and tube.
 - ii. Leakage through a gasket

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- iii. Threaded connections employing nonstructural seal welds for leakage prevention (through seal weld leakage is not a structural flaw; thread integrity must be maintained).
- iv. Degraded socket welds

Code Case N-513-1 permits flaws in Class 2 and 3 moderate energy piping on a temporary basis until the next outage if it can be demonstrated that adequate pipe integrity and leakage containment are maintained. The Code Case is currently applicable to part-through and through wall planar flaws and part-through nonplanar flaws. Service experience has shown that some piping can suffer degradation from nonplanar flaws, such as pitting and microbiological attack, where local inconsequential leakage can occur.

The Code Case can be used for nonplanar through-wall flaws but in a restrictive situation where nonplanar geometry is dominant in one plane. Some plants have used the intent of N-513 for nonplanar leaking flaws; however, relief requests from code requirements are still required because of the stated limited scope of N-513 in section 3.0 of the Code Case. The Code Case was revised (N-513-2) to extend the application to cover all types of nonplanar flaws. The analysis procedures were expanded to address the general case of through-wall degradation. Code Case N-513-2 has broader applications and therefore has a real direct benefit for operating plants.

Code Case N-513-2 includes the incorporation of the improved flaw evaluation procedures for piping that are provided in the new Appendix C of Section XI in the 2002 Addenda.

Code Case N-513-2 addresses the limitations posed in Regulatory Guide 1.147 as follows:

1. Paragraph 4.0 was revised to incorporate references to Appendix C.
2. 1.0(a) was revised to limit the application of the code case as specified in the limitation applied in Regulatory Guide 1.147.

Southern California Edison (SCE) considers the proposed alternative of using Code Case N-513-2 to provide an acceptable level of quality and safety in accordance with 10 CFR 50.55a (a)(3)(i).

6. Duration of Proposed Alternative:

SCE requests approval of Code Case N-513-2 to be used for the remainder of the current SONGS Units 2 and 3 third 10-year ISI interval that started on August 18, 2003, and will end on August 17, 2013 or until the NRC publishes Code Case N-513-2 in a future revision of Regulatory Guide 1.147. Upon incorporation into the Regulatory Guide, SCE will review and follow the conditions specified. All other ASME Code, Section XI requirements for which relief was not specifically requested and authorized by the NRC staff will remain applicable including third party review by the Authorized Nuclear Inservice Inspector.

10 CFR 50.55a(a)(3)(i) Request For Authorization To Utilize Code Case N-513-2**7. Precedents:**

Tennessee Valley Authority (TVA) submitted a relief request pursuant to 10 CFR 50.55a(a)(3)(i), for Browns Ferry Nuclear Plant, Units 1, 2 and 3; Sequoyah Nuclear Plant, Units 1 and 2; and Watts Bar Nuclear Plant, Unit 1, dated November 23, 2003 (ADAMS Accession #ML033320222). TVA requested relief from using the specific formula in Code Case N-513, for the maximum allowable flaw width when planar flaw evaluation rules may be applied. As an alternative, TVA proposed the use of the formula for maximum allowable flaw width from Code Case N-513-1, with applicable errata while retaining the use of all the other provisions and requirements in Code Case N-513. The NRC approved this relief request by letter October 6, 2004 (ADAMS Accession #ML042150438).

Nuclear Management Company (NMC) submitted a relief request for Duane Arnold Energy Center, Point Beach Nuclear Plant Units 1 and 2, Prairie Island Nuclear Generating Plant Units 1 and 2, Palisades Nuclear Plant, and Monticello Nuclear Generating Plant dated December 12, 2005 (ADAMS Accession #ML053470476). The NMC relief request was similar to the TVA request except that the NMC requested relief to use Code Case N-513-2, which incorporates the limitations specified in Regulatory Guide 1.147 on Code Case N-513-1. In addition, Code Case N-513-2 added a procedure for evaluating non-planar through-wall flaws in moderate energy piping. This revision also includes the improved flaw evaluation procedures for piping added to Section XI, Appendix C, in the 2002 Addenda. The NRC approved this relief request by letter dated July 3, 2006 (ADAMS Accession #ML061710364).

Similar to NMC, SCE is requesting relief to use Code Case N-513-2.