

10 CFR 50.55a

April 17, 2012

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

**SUBJECT: San Onofre Nuclear Generating Station, Units 2 and 3
Docket Nos. 50-361 and 50-362
Third Ten-Year In-service Inspection (ISI) Interval Relief
Request: ISI-3-36, Pressure Testing Boundary**

Dear Sir or Madam:

Pursuant to 10 CFR 50.55a(a)(3)(ii), Southern California Edison (SCE) requests Nuclear Regulatory Commission (NRC) approval of the following request for San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 Third Ten-Year In-service Inspection (ISI) Interval: Alternatives to testing requirements for the Reactor Coolant Pressure Boundary (RCPB). Approval of this request would result in a reduction in man-rem exposure.

SCE requests NRC approval by August 17, 2013, the scheduled expiration date of the Third Ten-Year ISI Interval. The details of the 10 CFR 50.55a request are enclosed.

This letter and the Enclosure contain no new commitments.

Should you have any questions, please contact Ms. Linda T. Conklin at (949) 368-9443.

Sincerely,



Enclosure: Request ISI-3-36 in Accordance with 10CFR50.55a(a)(3)(ii) for Relief for Hardship or Unusual Difficulty Without Compensating Increase In Level of Quality or Safety

cc: E.E Collins, Regional Administrator, NRC Region IV
R. Hall, NRC Project Manager, San Onofre Units 2 and 3
G.G. Warnick, NRC Senior Resident Inspector, San Onofre Units 2 and 3

ENCLOSURE

Request ISI-3-36

**10CFR50.55a(a)(3)(ii) for Relief for Hardship or Unusual Difficulty Without
Compensating Increase In Level of Quality or Safety**

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In accordance with 10 CFR 50.55a(a)(3)(ii)
Relief for Hardship or Unusual Difficulty Without Compensating Increase In Level
of Quality or Safety

1.0 ASME CODE COMPONENTS AFFECTED:

Code Class: 1

Reference: IWB-2500, Table IWB-2500-1

Examination Category: B-P

Item Number: B15.50 and B15.70

Description: Pressure Testing Boundary

Component Number: Class 1 Pressure Retaining Components

Drawing Number: Various

2.0 APPLICABLE CODE EDITION AND ADDENDA:

The In-service Inspection program is based on the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, 1995 Edition through the 1996 Addenda.

3.0 APPLICABLE CODE REQUIREMENT:

Table IWB-2500-1, Examination Category B-P, Item Numbers B15.50 and B15.70, requires all Class 1 pressure retaining components be subject to a system leakage test with a VT-2 visual examination in accordance with IWB-5220. This pressure test is to be conducted prior to plant startup following each reactor refueling outage. The pressure retaining boundary for the test conducted at or near the end of each inspection interval shall be extended to all Class 1 pressure retaining components within the system boundary per IWB-5222(b).

4.0 REASON FOR REQUEST:

Pursuant to 10CFR50.55a(a)(3)(ii), relief is requested on the basis that compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The many vent, drain, and branch (VTDB) connections 1-inch nominal pipe size (NPS) and smaller off the reactor coolant pressure boundary and four 2 inch drain lines from cold leg to reactor coolant drain tank have double manual isolation valves.

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The requirement to extend the system leakage test boundary for the leakage test conducted at or near the end of each inspection interval to the outboard valve on these VTDB connections results in a hardship without a compensating increase in the level of quality and safety. Repositioning the inboard manual valves before and after the test will take considerable time and will result in an unnecessary increase in dose to plant personnel. Manual operation (opening and closing) of the VTDB valves is estimated to expose plant personnel to 1.2 man-rem per test of all required valves. These off-normal configurations may also contribute to the risk of delaying normal plant start-up because of the critical path time and effort required to ensure system configuration is restored.

The purpose of the required extended pressure boundary condition is to detect evidence of leakage resulting in a validation of the integrity of the RCS pressure boundary beyond the first isolation valve. While in Mode 3 during plant start-up, the system leakage test is performed with the Reactor Coolant System (RCS) at full pressure, approximately 2250 psig at elevated temperature. Testing these VTDB connections would require an operator to change valve positions with the RCS at 2250 psig. Furthermore, due to the location of these valves, it would be necessary to erect scaffolding for this evolution. Finally, in Mode 3 during plant start-up the system leakage test is conducted as a critical path evolution. The valve manipulations necessary to pressurize the isolated portions of the vent, drain, and instrument connections, and then to return them to normal position would directly impact the start-up activity sequence and outage duration. Meeting those requirements involves considerable time to establish and return from the required temporary configuration resulting in both risk of delaying normal plant startup following a refueling outage and an increase in personnel radiation exposure and safety concern.

5.0 PROPOSED ALTERNATIVE AND BASIS FOR USE:

Reactor coolant pressure boundary VTDB connections 1-inch NPS and smaller and four 2 inch drain lines from cold leg to reactor coolant drain tank will be visually examined for leakage with the inboard isolation valve in the normally closed position during the system leakage test conducted at the end or near the end of each inspection interval per IWB-5222(b). This test provides reasonable assurance of structural integrity.

The 1-inch NPS and smaller and four 2 inch drain lines from cold leg to reactor coolant drain tank VTDB connections are normally closed during plant operation. The outboard

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valves would only see pressure if the inboard valve is open or leaks by the seat. Seat leakage, although undesirable, is not indicative of a flaw in the pressure boundary. The nonisolable portion of these VTDB connections is pressurized and VT-2 visually examined during the test. The VT-2 visual examination performed each refueling outage extends to the outboard valve, even though it is not pressurized. San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 technical specifications for reactor coolant pressure boundary leakage monitoring requires appropriate actions, including plant shutdown if leakage exceeded specified limits. Based on the above criteria, SONGS requests authorization to use the proposed alternative in lieu of the ASME Section XI, IWB-5222(b) requirements.

6.0 DURATION OF PROPOSED ALTERNATIVE:

Relief is requested for the Third Ten-Year Inspection Interval for SONGS.

7.0 PRECEDENTS:

Similar relief requests have been approved for:

Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2 Third Inspection Interval Relief Request PT-3-01 was authorized per SER dated February 12, 2009.
(Adams Accession Number ML090280282)

Shearon Harris Nuclear Power Plant, Unit 1 Second Inspection Interval Relief Request 2R1-015 was authorized per SER dated April 17, 2006.
(Adams Accession Number ML060870387)

Cooper Nuclear Station Fourth Inspection Interval Relief Request PR-11 was authorized per SER dated October 2, 2006.
(Adams Accession Number ML062260203)