

August 10, 2009

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

**Subject: Docket No. 50-361 and 50-362
Inservice Inspection of Structural Weld Overlays
San Onofre Nuclear Generating Station
Units 2 and 3**

Reference: Letter from A. E. Scherer (SCE) to Document Control Desk (NRC) dated March 17, 2006; Subject: Docket No. 50-361, Additional Information Supporting the Third Ten-Year Inservice Inspection (ISI) Interval Relief Request ISI-3-18 Use of Structural Weld Overlay and Associated Alternative Repair Techniques, San Onofre Nuclear Generating Station, Unit 2

Dear Sir or Madam:

This letter is to inform the NRC of a commitment change in advance of an upcoming American Society of Mechanical Engineers (ASME) Code Inservice Inspection on structural weld overlays performed at San Onofre Nuclear Generation Station (SONGS) Units 2 and 3.

By letter dated March 17, 2006 (Reference), Southern California Edison (SCE) submitted a response to a Request for Additional Information (RAI) related to Relief Request ISI-3-18. That relief request was related to the weld overlay repair over cast stainless steel material. In the SCE response to Question 11 of the RAI, SCE committed to work with the industry to demonstrate the Ultrasonic Testing (UT) technique has the ability to detect flaws in the cast material. SCE proposed to complete this demonstration within the next two cycles of operation (approximately four (4) years).

Since making the commitment, SCE has worked with the Electric Power Research Institute (EPRI) Non-Destructive Examination (NDE) Center in an attempt to develop techniques and a qualification process to address UT examination of cast material. The EPRI NDE Center is responsible for administering the industry-funded Performance Demonstrated Initiative (PDI) program which was established to provide a uniform approach to meeting Appendix VIII qualification issues.

The EPRI NDE Center fabricated several samples that match the SONGS configurations and evaluated the available UT inspection techniques. Unfortunately, none were successful.

The Materials Reliability Program (MRP) has recognized this issue and has revised MRP-139 guidance with regards to the cast material. These changes are included in MRP-139, Revision 1 (Section 5, page 5-2), and exclude the cast material from the required examination volume for Alloy 600 butt welds as follows.

"For DM [dissimilar metal] butt welds joining to cast stainless steel components (CASS), for which no ASME Section XI, Appendix VIII supplement exists, volumetric interrogation of the cast stainless steel material is not required (CASS is not known to be susceptible to PWSCC [primary water stress corrosion cracking] or any other service-related cracking degradation mechanism that is relevant within the RCS [reactor coolant system] operation environment)."

As a result, despite SCE's efforts with the industry, SCE has been unable to demonstrate a UT inspection technique that has the ability to reliably detect or size flaws in cast stainless steel material.

In January of 2010, SONGS Unit 2 is scheduled to complete the second cycle of operation since making the above commitment. Because efforts to date have not produced a technique capable of detecting or sizing flaws in cast stainless steel material, all required Inservice Inspections of the weld overlays in SONGS Units 2 and 3 covered by Relief Request ISI-3-18 and Relief Requests submitted subsequent to ISI-3-18) will continue to be performed using the best-available technique, as described in the reference letter.

If you have any questions or would like additional information concerning this subject, please call Ms. L. T. Conklin at (949) 368-9443.

Sincerely,



Enclosure

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