April 21, 2006

Mr. Richard M. Rosenblum Senior Vice President and Chief Nuclear Officer Southern California Edison Company San Onofre Nuclear Generating Station P.O. Box 128 San Clemente, CA 92674-0128

SUBJECT: SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3 -REQUEST FOR ADDITIONAL INFORMATION ON THE PROPOSED TECHNICAL SPECIFICATION IMPROVEMENT REGARDING STEAM GENERATOR TUBE INTEGRITY BASED ON TECHNICAL SPECIFICATION TASK FORCE (TSTF)-449, "STEAM GENERATOR TUBE INTEGRITY" (TAC NOS. MC9236 AND MC9237)

Dear Mr. Rosenblum:

By letter dated November 30, 2005 (Agencywide Documents Access and Management System Accession No. ML053390294), Southern California Edison submitted an application to change the San Onofre Nuclear Generating Station, Units 2 and 3, technical specifications (TS) related to steam generator (SG) tube inspection. The proposed amendment would revise the TS requirements related to SG tube integrity, based on the NRC-approved Revision 4 to Standard Technical Specification Change Traveler TSTF-449, "Steam Generator Tube Integrity."

After reviewing your request, the Nuclear Regulatory Commission staff has determined that additional information is required to complete the review. We discussed this information with your staff by telephone and they agreed to provide the additional information requested in the enclosure by June 2, 2006.

If you have any questions, please contact me at (301) 415-1480.

Sincerely,

/**RA**/

N. Kalyanam, Project Manager Plant Licensing Branch IV Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket Nos. 50-361 and 50-362

Enclosure: Request for Additional Information

cc w/encl: See next page

Mr. Richard M. Rosenblum Senior Vice President and Chief Nuclear Officer Southern California Edison Company San Onofre Nuclear Generating Station P.O. Box 128 San Clemente, CA 92674-0128

SUBJECT: SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3 -REQUEST FOR ADDITIONAL INFORMATION ON THE PROPOSED TECHNICAL SPECIFICATION IMPROVEMENT REGARDING STEAM GENERATOR TUBE INTEGRITY BASED ON TECHNICAL SPECIFICATION TASK FORCE (TSTF)-449, "STEAM GENERATOR TUBE INTEGRITY" (TAC NOS. MC9236 AND MC9237)

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ACCESSION NO:	ML06 1140165
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* No major change from Staff provided RAI

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DATE	4/20/06	04/20/06	4/14/06	04/21/06

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REQUEST FOR ADDITIONAL INFORMATION ON THE

PROPOSED TECHNICAL SPECIFICATION IMPROVEMENT REGARDING

STEAM GENERATOR TUBE INTEGRITY BASED ON

TECHNICAL SPECIFICATION TASK FORCE (TSTF)-449,

"STEAM GENERATOR TUBE INTEGRITY"

SOUTHERN CALIFORNIA EDISON

SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3

DOCKET NOS. 50-361 AND 50-362

By letter dated November 30, 2005 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML053390294), Southern California Edison (SCE, the licensee), submitted a request to amend the technical specifications (TS) for the San Onofre Nuclear Generating Station, Units 2 and 3 (SONGS 2 and 3). The proposed change is based on Standard Technical Specification Change Traveler TSTF-449, "Steam Generator Tube Integrity," Revision 4 (ADAMS Accession No. ML051090200), approved by the Nuclear Regulatory Commission (NRC). Variations from TSTF-449 are listed in Section 2.1 of Enclosure 3 to the November 30, 2005, application.

The NRC staff has reviewed the application consistent with the model safety evaluation published in the *Federal Register* March 2, 2005 (70 FR 10298), and determined the need to request additional information (RAI) to complete its review.

1. By letter dated November 3, 2005 (ADAMS Accession No. ML053110284), the licensee submitted a request to change its TS to define the extent of the required tube inspections and repair criteria within the tubesheet regions. This amendment is currently under review by the staff. The changes proposed in this amendment are not included the current proposal to incorporate TSTF-449. Therefore, the staff requests the licensee to clarify whether it intends to have TSTF-449 approved prior to the November 3, 2005, request. If so, the November 3, 2005, request will need to be modified to reflect the adoption of TSTF-449. If not, the staff requests the licensee to discuss its plans to modify the current proposal to reflect the November 3, 2005, request.

The following RAIs are based on the proposed TS changes found in Attachments C and D of the November 30, 2005, application.

- 2. Page 3.4-51, TS 3.4.17, "Steam Generator (SG) Tube Integrity," has a typographical error. Condition B should read, "Required Action and associated Completion Time of Condition A not met."
- 3. On Page 5.0-14, TS 5.5.2.11.b.3 describes the inspection of sleeves prior to initial

operation and is proposed for deletion. The staff requests the licensee to discuss the basis for not including this requirement in its proposal or to modify its proposal to include the inspection of sleeves prior to initial operation.

4. On Page 5.0-14a, TS 5.5.2.11.c describes the provisions for SG tube repair criteria and the removal of sleeves from service upon detection of service-induced degradation. Since the definition of an SG tube includes any repairs to the tube, the provisions in this TS may be misinterpreted. Therefore, the staff requests the licensee to discuss its plans to more clearly define the repair criteria in this TS.

An example of this modification is as follows:

c. Provisions for SG tube repair criteria. The non-sleeved region of a tube found by inservice inspection to contain flaws with a depth equal to or exceeding 44 percent of the nominal tube wall thickness shall be plugged or repaired except if the flaws are permitted to remain in service through application of an alternate tube repair criteria discussed below.

Tubes shall be plugged if the sleeved region of a tube is found by inservice inspection to contain flaws in the (a) sleeve or (b) pressure boundary portion of the original tube wall in the sleeve tube assembly (i.e., the sleeve-to-tube joint).

- 5. On Page 5.0-14a, TS 5.5.2.11.c describes the removal of sleeves from service upon detection of service-induced degradation of the sleeve material or any portion of the sleeve-to-tube weld. The staff notes that sleeves may be installed through the use of an expansion (lower) joint (i.e., without a weld) in the tubesheet. Therefore, the staff requests the licensee to discuss why it is not necessary to have repair criteria for a non-welded joint or to modify its proposal to address a non-welded joint.
- 6. On Page 5.0-15a, TS 5.5.2.11.d.2 states, "Inspect 100% of the tubes and sleeves at sequential periods of 60 effective full power months..." The staff notes that on page B 3.4-95, the SG tube is defined as "...the entire length of the tube, including the tube wall and any repairs made to it, between the tube-to-tubesheet weld at the tube inlet and the tube-to-tubesheet weld at the tube outlet. The tube-to-tubesheet weld is not considered part of the tube." Since a sleeved tube is within the definition of an SG tube, the phrase "tubes and sleeves" is redundant and may lead to an unnecessary distinction. Therefore, the staff requests the licensee to delete the phrase "and sleeves" from the aforementioned reference.
- 7. On Page 5.0-16a, TS 5.5.2.11.f.1 describes the acceptable tube repair methods for SONGS 2 and 3. Presumably the heat treatment, acceptance testing, and non-destructive examination of the sleeves is discussed in the referenced topical report. If this is the case, the staff requests the licensee to discuss its plans to delete the second paragraph detailing this information related to the NRC approved tungsten inert gas welded sleeving method.

The following RAI is based on the proposed TS changes found in Attachment G of the application (i.e., the redline and strikeout proposed TS Bases Pages to the application stated to be typical for both Units 2 and 3).

8. On page B 3.4-71, the second to the last paragraph under, "Applicable Safety Analyses," states, "...The dose consequences resulting from the SLB [steam line break] accident are within the limits defined in 10 CFR 100." The corresponding sentence on page B 3.4.13-2 of TSTF-449, Revision 4, states, "...The dose consequences resulting from the SLB accident are well within the limits defined in 10 CFR 50 or the staff approved licensing basis (i.e., a small fraction of these limits)." The staff notes that on Page B 3.4-94, under, "Applicable Safety Analyses," the last sentence continues to Page B 3.4-95 and states, "...10 CFR 100 (Ref. 3) or the NRC approved licensing basis (e.g., a small fraction of these limits)."

The staff requests the licensee to discuss the discrepancy between its proposal and the TSTF or to modify its proposal consistent with the TSTF.

San Onofre Nuclear Generating Station Units 2 and 3

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