May 27, 2008

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, UNIT 3 - EVALUATION OF 2006 STEAM GENERATOR TUBE INSERVICE INSPECTION REPORT (TAC NO. MD5953)

Dear Mr. Rosenblum:

By letters dated May 25, and December 26, 2007 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML071520093 and ML073610391, respectively), Southern California Edison (the licensee), submitted information summarizing the results of the 2006 steam generator (SG) tube inspections performed at San Onofre Nuclear Generating Station, Unit 3 (SONGS 3) during the Cycle 14 refueling outage (3C14). In addition, the U.S. Nuclear Regulatory Commission (NRC) staff summarized additional information concerning the SG tube inspections at SONGS 3 in a letter dated December 18, 2006 (ADAMS Accession No. ML063450313).

The NRC staff completed its review of these reports and concludes that the licensee provided the information required by their technical specifications and that no additional follow-up is required at this time. The NRC staff review of the reports is enclosed.

Sincerely,

/RA/

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

Docket No. 50-362

cc w/encl: See next page

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ADAMS **Accession No.: ML081400526 NRR-106** ***Tech Staff Input**

OFFICE	NRR/LPL4/PM	NRR/LPL4/LA	NRR/DCI/CSGB/BC*	NRR/LPL4/BC
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DATE	5/27/08	5/19/08	5/20/08	5/27/08

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SUMMARY OF REVIEW BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 3

2006 STEAM GENERATOR TUBE INSPECTIONS

TAC NO. MD5953

DOCKET NO. 50-362

By letters dated May 25, and December 26, 2007 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML071520093 and ML073610391, respectively), Southern California Edison (the licensee), submitted information summarizing the results of the 2006 steam generator (SG) tube inspections performed at San Onofre Nuclear Generating Station, Unit 3 (SONGS 3) during the Cycle 14 refueling outage (3C14). In addition, the U.S. Nuclear Regulatory Commission (NRC) staff summarized additional information concerning the SG tube inspections at SONGS 3 in a letter dated December 18, 2006 (ADAMS Accession No. ML063450313).

There are two Combustion Engineering Model 3410 SGs at SONGS Unit 3. Each SG has 9,350 mill-annealed, Alloy 600 tubes. The tubes have an outside diameter of 0.75 inches, and a wall thickness of 0.048 inches. Carbon steel eggcrate tube supports, diagonal straps, and vertical straps support the tubes at various locations. The tubes were expanded through the full depth of the tubesheet using an explosive process.

The licensee provided the scope, extent, methods, and results of their SG tube inspections in the documents referenced above. In addition, the licensee described corrective actions (e.g., tube plugging) taken in response to the inspection findings.

After review of the information provided by the licensee, the NRC staff has the following comment/observation:

To ensure the batwings in the stay cavity region were intact, the licensee:

a. familiarized their analysts with eddy current data from another plant that had experience batwing damage,

b. confirmed that a support was present at all wear scars (a rotating probe inspection was performed at all wear locations) and that there were no non-wear volumetric indications,

c. re-analyzed eddy current data focusing on looking for indications of batwing displacement, and

d. performed a foreign object search and retrieval (FOSAR) at the top of the tubesheet in which no batwing material was found.

Based on a review of the information provided by the licensee, the staff concludes that the licensee provided the information required by their technical specifications. The SG tube inspections at SONGS Unit 3 appear to be consistent with the objective of detecting potential tube degradation and the inspection results appear to be consistent with industry operating experience at similarly designed and operated units.

cc:

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