SOUTHERN CALIFORNIA
EDISON
An EDISON INTERNATIONAL® Company

Brian Katz
Vice President

October 5, 2006

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

Subject: **San Onofre Nuclear Generating Station, Units 2 and 3 Docket Nos. 50-361 and 50-362 Submittal of Supplement 3 to Proposed Change Number NPF-10/15-565 License Amendment Request, "Proposed Technical Specification Change, Define the Extent of the Required Tube Inspections and Repair Criteria within the Tubesheet Region of the Steam Generators"**

References:

1. Letter from Brian Katz (SCE) to NRC (Document Control Desk) Dated November 3, 2005, Subject: San Onofre Nuclear Generating Station, Units 2 and 3, Docket Nos. 50-361 and 50-362, Proposed Change Number NPF-10/15-565, License Amendment Request, "Proposed Technical Specification Change, Define the Extent of the Required Tube Inspections and Repair Criteria Within the Tubesheet Region of the Steam Generators."

2. Letter from N. Kalyanam (NRC) to Richard M. Rosenblum (SCE) Dated March 23, 2006, Subject: San Onofre Nuclear Generating Station, Units 2 and 3 – Request for Additional Information on the Proposed C* Amendment for Steam Generator Tube Inspection and Repair in the Tubesheet (TAC NOS. MC8850 and MC8851)

3. Letter from Brian Katz (SCE) to NRC (Document Control Desk) Dated May 1, 2006, Subject: San Onofre Nuclear Generating Station, Units 2 and 3, Docket Nos. 50-361 and 50-362, Response to Request For Additional Information and Submittal of Supplement 1 to Proposed Change Number NPF-10/15-565 License Amendment Request, "Proposed Technical Specification Change, Define the Extent of the Required Tube Inspections and Repair Criteria Within the Tubesheet Region of the Steam Generators."

A001

P.O. Box 128
San Clemente, CA 92674-0128
949-368-9275
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4. Letter from Brian Katz (SCE) to NRC (Document Control Desk) Dated August 15, 2006, Subject: San Onofre Nuclear Generating Station, Units 2 and 3, Docket Nos. 50-361 and 50-362, Response to Request For Additional Information and Submittal of Supplement 2 to Proposed Change Number NPF-10/15-565 License Amendment Request, "Proposed Technical Specification Change, Define the Extent of the Required Tube Inspections and Repair Criteria Within the Tubesheet Region of the Steam Generators."

5. Letter from N. Kalyanam (NRC) to Richard M. Rosenblum (SCE) Dated September 19, 2006, Subject: San Onofre Nuclear Generating Station, Units 2 and 3 – Issuance of Amendments Re: Technical Specification Improvement Regarding Steam Generator Tube Integrity Based on Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-449, "Steam Generator Tube Integrity" (TAC Nos. MC9236 and MC9237)

Dear Sir or Madam:

Reference 1, as modified by References 3 and 4, requested license amendments for San Onofre Units 2 and 3. Those proposed amendments revise Technical Specification (TS) Section 5.5.2.11 to modify the descriptions of steam generator tube "Repair Limit" and "Tube Inspection." The purpose of these changes is to define the extent of the required tube inspections and repair criteria within the tubesheet regions.

Reference 5 was issued by the NRC on September 19, 2006 providing San Onofre Unit 2 and 3 Amendments 204 and 196, respectively, approving SCE Technical Specification proposed change (PCN)-564 which incorporates Technical Specification Task Force (TSTF)-449, "Steam Generator Tube Integrity."

Since reference 5 introduced significant revisions to Technical Specification 5.5.2.11, "Steam Generator (SG) Program", it is now necessary to revise the PCN-565 proposed Technical Specification changed pages accordingly. This Supplement 3 submittal provides the revised pages to implement PCN-565 upon NRC approval.

The No Significant Hazards Consideration and Environmental Evaluation provided with PCN-565 both remain bounding.

Should you have any questions, or require additional information, please contact Ms. L. Pressey at (949) 368-6351.

Sincerely,

Brian Katz

Enclosures:
1. Notarized affidavit, Unit 2
2. Notarized affidavit, Unit 3
3. Supplement 3 to the Proposed License Amendment Request, Proposed Change Number NPF-10/15-565, with attached modifications to the currently approved, Technical Specification TSTF-449 Amendment, changed pages.

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
S. Y. Hsu, California Department of Health Services, Radiologic Health Branch

Enclosure 1

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Application of SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. for a Class 103 License to Acquire, Possess, and Use a Utilization Facility as Part of Unit No. 2 of the San Onofre Nuclear Generating Station	)))))	Docket No. 50-361 Supplement 3 to Amendment Application No. 238

SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. pursuant to 10 CFR 50.90, hereby submit Supplement 3 to Amendment Application No. 238. This amendment application consists of Proposed Change No. NPF-10-565 which is a request to revise Facility Operating License NPF-10 to define the extent of the required steam generator tube inspections and repair criteria within the tubesheet regions.

State of California
County of San Diego

Brian Katz
Brian Katz, Vice President

Subscribed and sworn to ~~(or affirmed)~~ before me on this 5th day of October, 2006,

by Brian Katz

personally known to me ~~or proved to me on the basis of satisfactory evidence~~ to be the person who appeared before me.

Dawn A. Farrell
Notary Public

DAWN A. FARRELL
Commission # 1623106
Notary Public - California
San Diego County
My Comm. Expires Nov 20, 2009

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Application of SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. for a Class 103 License to Acquire, Possess, and Use a Utilization Facility as Part of Unit No. 3 of the San Onofre Nuclear Generating Station	)))))	Docket No. 50-362 Supplement 3 to Amendment Application No. 222

SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. pursuant to 10 CFR 50.90, hereby submit Supplement 3 to Amendment Application No. 222. This amendment application consists of Proposed Change No. NPF-15-565 which is a request to revise Facility Operating License NPF-15 to define the extent of the required steam generator tube inspections and repair criteria within the tubesheet regions.

State of California
County of San Diego

Brian Katz
Brian Katz, Vice President

Subscribed and sworn to ~~(or affirmed)~~ before me on this 5th day of October, 2006,

by Brian Katz

personally known to me ~~or proved to me on the basis of satisfactory evidence~~ to be the person who appeared before me.

Dawn A. Farrell
Notary Public

DAWN A. FARRELL
Commission # 1623106
Notary Public - California
San Diego County
My Comm. Expires Nov 20, 2009

ENCLOSURE 3

Supplement 3 to the Proposed License Amendment Request, Proposed Change Number NPF-10/15-565, with attachments A – D (modifications to the approved Technical Specification TSTF-449 Amendment changed, pages)

LICENSEE'S EVALUATION

DESCRIPTION FOR PROPOSED CHANGE NPF-10/15-565 SUPPLEMENT 3 PROPOSED TECHNICAL SPECIFICATION CHANGE, DEFINE THE EXTENT OF THE REQUIRED TUBE INSPECTIONS AND REPAIR CRITERIA WITHIN THE TUBESHEET REGION OF THE STEAM GENERATORS San Onofre Nuclear Generating Station Units 2 and 3

PCN-565 SUPPLEMENT 3 PROPOSED TECHNICAL SPECIFICATION CHANGE REVISIONS (changes hand marked on approved Technical Specification pages)

Unit 2: see Attachment A
Unit 3: see Attachment B

PCN-565 SUPPLEMENT 3 PROPOSED TECHNICAL SPECIFICATIONS PAGES (with changes)

Unit 2: see Attachment C
Unit 3: see Attachment D

1.0 INTRODUCTION

This supplement to PCN-565 provides revised proposed Technical Specification change pages that provide consistency with the approved Technical Specifications incorporating the Technical Specification Task Force (TSTF)-449 Unit 2 and 3 amendments 204 and 196, respectively, that were issued by the NRC on September 19, 2006.

2.0 PROPOSED CHANGE

A letter was issued by the NRC on September 19, 2006 issuing San Onofre Unit 2 and 3 Amendments 204 and 196, respectively, approving SCE Technical Specification proposed change (PCN)-564 which incorporates Technical Specification Task Force (TSTF)-449, "Steam Generator Tube Integrity." Since incorporation of TSTF-449 introduced significant revisions to Technical Specification 5.5.2.11, "Steam Generator (SG) Program, it is now necessary to revise the PCN-565 proposed Technical Specification changed pages accordingly. This Supplement 3 submittal provides the revised pages to implement PCN-565 Amendments onto the currently approved San Onofre Units 2 and 3 Technical Specification pages upon NRC approval.

3.0 REGULATORY SAFETY ANALYSIS

The No Significant Hazards Consideration and Environmental Evaluation provided with PCN-565 both remain bounding.

Attachment A

PCN-565 SUPPLEMENT 3 PROPOSED TECHNICAL SPECIFICATION CHANGE REVISIONS (changes hand marked on approved Technical Specification pages)

SONGS Unit 2

5.5 Procedures, Programs, and Manuals (continued)

5.5.2.11 Steam Generator (SG) Program (continued)

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% 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.

INSERT A →

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).

d. Provisions for SG tube inspections. Periodic SG tube inspections shall be performed. The number and portions of the tubes inspected and methods of inspection shall be performed with the objective of detecting flaws of any type (e.g., volumetric flaws, axial and circumferential cracks) that may be present along the length of the tube, from the tube-to-tubesheet weld at the tube inlet to the tube-to-tubesheet weld at the tube outlet, and that may satisfy the applicable tube repair criteria. The tube-to-tubesheet weld is not part of the tube.

INSERT B →

In addition to meeting the requirements of d.1, d.2, d.3, and d.4 below, the inspection scope, inspection methods, and inspection intervals shall be such as to ensure that SG tube integrity is maintained until the next SG inspection. An assessment of degradation shall be performed to determine the type and location of flaws to which the tubes may be susceptible and, based on this assessment, to determine which inspection methods need to be employed and at what locations:

1. Inspect 100% of the tubes in each SG during the first refueling outage following SG replacement.

2. Inspect 100% of the tubes at sequential periods of 60 effective full power months. The first sequential period shall be considered to begin after the first inservice inspection of the SGs. No SG shall operate for more than 24 effective full power months or one refueling outage (whichever is less) without being inspected.

(continued)

INSERT A

c. Provisions for SG tube repair criteria.

1. Tubes shall be plugged or repaired if the non-sleeved region of a tube is found by inservice inspection to contain flaws with a depth equal to or exceeding 44% of the nominal tube wall thickness, at a location that is not addressed in Technical Specification 5.5.2.11.c.2.

2. Tubes shall be plugged or repaired if the non-sleeved region of a tube is found by inservice inspection to contain flaws at either of the following locations:

   a. below the bottom of the hot leg expansion transition or hot leg top of the tubesheet, whichever is higher, or

   b. below the bottom of the cold leg expansion transition or cold leg top of the tubesheet, whichever is higher.

3. Tubes shall be plugged if the sleeved region of a tube is found to contain flaws in the:

   a. Sleeve, or

   b. Sleeve or original tube wall at a sleeve-to-tube joint.

4. The following C* methodology may be applied in a portion of the expanded tube in the tubesheet region, as an alternative to the repair criteria of Technical Specification 5.5.2.11.c.2. Flaws, in the locations described below, may remain in service regardless of size.

   a. For tubes that have not been repaired in the hot leg tubesheet region: Greater than 10.6 inches below the bottom of the hot leg expansion transition or top of the hot leg tubesheet, whichever is lower.

   b. For tubes that have not been repaired in the cold leg tubesheet region: Greater than 11.0 inches below the bottom of the cold leg expansion transition or top of the cold leg tubesheet, whichever is lower.

INSERT A (Continued)

c. For tubes that have been repaired in the hot leg tubesheet region: Below the bottom of the lower sleeve-to-tube joint or greater than 10.6 inches below the bottom of the hot leg expansion transition or greater than 10.6 inches below the top of the hot leg tubesheet, whichever of these three is lowest.

d. For tubes that have been repaired in the cold leg tubesheet region: Below the bottom of the lower sleeve-to-tube joint or greater than 11.0 inches below the bottom of the cold leg expansion transition or greater than 11.0 inches below the top of the cold leg tubesheet, whichever of these three is lowest.

INSERT B

In tubes repaired by sleeving, the portion of the original tube wall between the sleeve's joints is not an area requiring re-inspection.

Attachment B

PCN-565 SUPPLEMENT 3 PROPOSED TECHNICAL SPECIFICATION CHANGE REVISIONS (changes hand marked on approved Technical Specification pages)

SONGS Unit 3

5.5 Procedures, Programs, and Manuals (continued)

5.5.2.11 Steam Generator (SG) Program (continued)

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% 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.

INSERT A →

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INSERT B →

1. Inspect 100% of the tubes in each SG during the first refueling outage following SG replacement.

2. Inspect 100% of the tubes at sequential periods of 60 effective full power months. The first sequential period shall be considered to begin after the first inservice inspection of the SGs. No SG shall operate for more than 24 effective full power months or one refueling outage (whichever is less) without being inspected.

(continued)

INSERT A

c. Provisions for SG tube repair criteria.

1. Tubes shall be plugged or repaired if the non-sleeved region of a tube is found by inservice inspection to contain flaws with a depth equal to or exceeding 44% of the nominal tube wall thickness, at a location that is not addressed in Technical Specification 5.5.2.11.c.2.

2. Tubes shall be plugged or repaired if the non-sleeved region of a tube is found by inservice inspection to contain flaws at either of the following locations:

    a. below the bottom of the hot leg expansion transition or hot leg top of the tubesheet, whichever is higher, or

    b. below the bottom of the cold leg expansion transition or cold leg top of the tubesheet, whichever is higher.

3. Tubes shall be plugged if the sleeved region of a tube is found to contain flaws in the:

    a. Sleeve, or

    b. Sleeve or original tube wall at a sleeve-to-tube joint.

4. The following C* methodology may be applied in a portion of the expanded tube in the tubesheet region, as an alternative to the repair criteria of Technical Specification 5.5.2.11.c.2. Flaws, in the locations described below, may remain in service regardless of size.

    a. For tubes that have not been repaired in the hot leg tubesheet region: Greater than 10.6 inches below the bottom of the hot leg expansion transition or top of the hot leg tubesheet, whichever is lower.

    b. For tubes that have not been repaired in the cold leg tubesheet region: Greater than 11.0 inches below the bottom of the cold leg expansion transition or top of the cold leg tubesheet, whichever is lower.

INSERT A (Continued)

c. For tubes that have been repaired in the hot leg tubesheet region: Below the bottom of the lower sleeve-to-tube joint or greater than 10.6 inches below the bottom of the hot leg expansion transition or greater than 10.6 inches below the top of the hot leg tubesheet, whichever of these three is lowest.

d. For tubes that have been repaired in the cold leg tubesheet region: Below the bottom of the lower sleeve-to-tube joint or greater than 11.0 inches below the bottom of the cold leg expansion transition or greater than 11.0 inches below the top of the cold leg tubesheet, whichever of these three is lowest.

INSERT B

In tubes repaired by sleeving, the portion of the original tube wall between the sleeve's joints is not an area requiring re-inspection.

Attachment C

PCN-565 SUPPLEMENT 3 PROPOSED TECHNICAL SPECIFICATIONS PAGES
(with changes)

SONGS Unit 2

5.5 Procedures, Programs, and Manuals (continued)

5.5.2.11 Steam Generator (SG) Program (continued)

c. Provisions for SG tube repair criteria.

1. Tubes shall be plugged or repaired if the non-sleeved region of a tube is found by inservice inspection to contain flaws with a depth equal to or exceeding 44% of the nominal tube wall thickness, at a location that is not addressed in Technical Specification 5.5.2.11.c.2.

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b) below the bottom of the cold leg expansion transition or cold leg top of the tubesheet, whichever is higher.

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a) sleeve, or

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4. The following C* methodology may be applied in a portion of the expanded tube in the tubesheet region, as an alternative to the repair criteria of Technical Specification 5.5.2.11.c.2. Flaws, in the locations described below, may remain in service regardless of size.

a) For tubes that have not been repaired in the hot leg tubesheet region: Greater than 10.6 inches below the bottom of the hot leg expansion transition or top of the hot leg tubesheet, whichever is lower.

b) For tubes that have not been repaired in the cold leg tubesheet region: Greater than 11.0 inches below the bottom of the cold leg expansion transition or top of the cold leg tubesheet, whichever is lower.

(continued)

5.5 Procedures, Programs, and Manuals (continued)

5.5.2.11 Steam Generator (SG) Program (continued)

c) For tubes that have been repaired in the hot leg tubesheet region: Below the bottom of the lower sleeve-to-tube joint or greater than 10.6 inches below the bottom of the hot leg expansion transition or greater than 10.6 inches below the top of the hot leg tubesheet, whichever of these three is lowest.

d) For tubes that have been repaired in the cold leg tubesheet region: Below the bottom of the lower sleeve-to-tube joint or greater than 11.0 inches below the bottom of the cold leg expansion transition or greater than 11.0 inches below the top of the cold leg tubesheet, whichever of these three is lowest.

d. Provisions for SG tube inspections. Periodic SG tube inspections shall be performed. The number and portions of the tubes inspected and methods of inspection shall be performed with the objective of detecting flaws of any type (e.g., volumetric flaws, axial and circumferential cracks) that may be present along the length of the tube, from the tube-to-tubesheet weld at the tube inlet to the tube-to-tubesheet weld at the tube outlet, and that may satisfy the applicable tube repair criteria. The tube-to-tubesheet weld is not part of the tube. In tubes repaired by sleeving, the portion of the original tube wall between the sleeve's joints is not an area requiring re-inspection. In addition to meeting the requirements of d.1, d.2, d.3, and d.4 below, the inspection scope, inspection methods, and inspection intervals shall be such as to ensure that SG tube integrity is maintained until the next SG inspection. An assessment of degradation shall be performed to determine the type and location of flaws to which the tubes may be susceptible and, based on this assessment, to determine which inspection methods need to be employed and at what locations.

1. Inspect 100% of the tubes in each SG during the first refueling outage following SG replacement.

2. Inspect 100% of the tubes at sequential periods of 60 effective full power months. The first sequential period shall be considered to begin after the first inservice inspection of the SGs. No SG shall operate for more than 24 effective full power months or one refueling outage (whichever is less) without being inspected.

(continued)

Attachment D

PCN-565 SUPPLEMENT 3 PROPOSED TECHNICAL SPECIFICATIONS PAGES
(with changes)

SONGS Unit 3

5.5 Procedures, Programs, and Manuals (continued)

5.5.2.11 Steam Generator (SG) Program (continued)

c. Provisions for SG tube repair criteria.

1. Tubes shall be plugged or repaired if the non-sleeved region of a tube is found by inservice inspection to contain flaws with a depth equal to or exceeding 44% of the nominal tube wall thickness, at a location that is not addressed in Technical Specification 5.5.2.11.c.2.

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b) below the bottom of the cold leg expansion transition or cold leg top of the tubesheet, whichever is higher.

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(continued)

5.5 Procedures, Programs, and Manuals (continued)

5.5.2.11 Steam Generator (SG) Program (continued)

c) For tubes that have been repaired in the hot leg tubesheet region: Below the bottom of the lower sleeve-to-tube joint or greater than 10.6 inches below the bottom of the hot leg expansion transition or greater than 10.6 inches below the top of the hot leg tubesheet, whichever of these three is lowest.

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(continued)