

June 10, 2002

Mr. Harold B. Ray  
Executive Vice President  
Southern California Edison Company  
San Onofre Nuclear Generating Station  
P.O. Box 128  
San Clemente, CA 92674-0128

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR EXIGENT STEAM  
GENERATOR TECHNICAL SPECIFICATION CHANGE (TAC NOs. MB5145  
AND MB5146 )

Dear Mr. Ray:

By letter dated May 22, 2002, Southern California Edison (SCE/licensee) submitted a request for an exigent technical specification (TS) change regarding the TS 5.5.2.11.f.1.h, "Steam Generator Tube Surveillance Inspection Program," for the San Onofre Generating Stations, Units 2 and 3. The NRC has concluded that additional information is needed to complete the review. Enclosed is a request for additional information regarding your May 22, 2002, submittal. Please respond by June 11, 2002. This request has been discussed with Jack Rainsberry of your staff and he has agreed to this schedule. If you have any questions regarding this request, please contact me at (301) 415-1445.

Sincerely,

/RA/

Alan B. Wang, Project Manager, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-361 and 50-362

Enclosure: As stated

cc: See next page

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**ACCESSION NO.: ML021650180**

|        |           |             |                          |
|--------|-----------|-------------|--------------------------|
| OFFICE | PDIV-2/PM | PDIV-1/LA   | PDIV-2/SC                |
| NAME   | AWang:sp  | MMcAllister | JHickman for:<br>SDembek |
| DATE   | 6/10/02   | 6/10/02     | 6/10/02                  |

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Request for Additional Information  
San Onofre Generating Stations, Units 2 and 3  
Steam Generator Tube Inspection Program  
Proposed Technical Specification Change

In order to complete the review of the proposed amendment, additional information is needed to clarify certain points in the WCAP-15894-P report.

1. Please provide a brief description of the steam generator including model, number of tubes per steam generator, thickness of the tubesheet, tube outside diameter and wall thickness, tube material (e.g., mill annealed alloy 600), number of tube supports, design (e.g., lattice grid ) of tube supports, tube support material, and tube support thickness.
2. Clarify definitions of "joint length" and "tube engagement area length." Specifically address whether these measurements are from the top of the tubesheet or from the bottom of the expansion transition. If from the top of the tubesheet, provide a table depicting the distance from the top of the tubesheet to the bottom of the transition for each of the specimens.
3. The inspection distance is specified from the top of the tubesheet. Are all tubes expanded such that the bottom of the expansion transition is located at the top of the tubesheet? If not, provide a histogram summarizing the distance from the top of the tubesheet to the bottom of the expansion transition.
4. A value of 4410 psid was used to correspond to the 3 times the normal operating differential pressure acceptance criterion. What was the secondary side pressure used in determining this value.
5. Please provide a summary of all of the conservatisms in your analysis (if different than that on page 13 of WCAP-15894-P, Revision 1).
6. Please provide a description of the results of your inspections in the tubesheet region. Please clarify that all tubes with indications in the tubesheet were repaired (specifically address how axial indications detected by the bobbin in the lower part of the tubesheet were dispositioned). Please describe the size of the largest circumferential indication found in this outage and in prior outages. Please provide the number of circumferential indications found.
7. With respect to tubesheet bow (and tubesheet hole dilation), what is the limiting "region" of the steam generator? Is it in the interior of the tube bundle or in the periphery? Please clarify if the allowance for tubesheet bow is for the worst "position" in the steam generator.
8. Compare the Westinghouse and CE explosive expansion methods in terms of the resultant contact pressures (i.e., ability of the tube to resist pullout from the tubesheet). Does the CE method provide comparable contact pressures?
9. Describe the extent to which denting has occurred at San Onofre 2. If denting has occurred, discuss whether it would prevent/limit the potential for tube pullout. Describe whether any prior tube pulls provided any insights on the extent to which denting may limit the potential for tube pullout.

San Onofre Nuclear Generating Station, Units 2 and 3

cc:

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