

January 18, 2007

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 -  
BULLETIN 2004-01, "INSPECTIONS OF ALLOY 82/182/600 MATERIALS USED  
IN THE FABRICATION OF PRESSURIZER PENETRATIONS AND STEAM  
SPACE PIPING CONNECTIONS AT PRESSURIZED-WATER REACTORS,"  
RESPONSE (TAC NOS. MC3509 AND MC3510)

Dear Mr. Rosenblum:

On May 28, 2004, the U.S. Nuclear Regulatory Commission (NRC) issued Bulletin 2004-01, "Inspections of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors," to the industry. This bulletin informed addressees that current methods of inspecting the pressurizer penetrations and steam space piping connections fabricated from Alloy 82/182/600 materials may need to be supplemented with additional measures (e.g., bare-metal visual inspections) to detect pressurizer penetration and steam space piping connection flaws or leakage. The bulletin requested that addressees provide the NRC with information related to the materials of construction, the inspections that have been performed, and the inspections which will be performed to verify the integrity of the pressurizer penetrations and steam space piping connections.

By letter dated July 23, 2004, Southern California Edison (SCE, the licensee) provided its responses to items 1a, 1b, 1c, and 1d of Bulletin 2004-01 for San Onofre Nuclear Generating Station, Units 2 and 3 (SONGS 2 and 3). SCE's responses described its materials of fabrication and past, current, and future pressurizer penetrations and steam space piping inspection programs at SONGS 2 and 3.

SCE'S response to item 1a reported that some of the materials used in the fabrication of the pressurizer penetrations and steam space piping connections were Alloy 82/182/600 materials. This reply required you to provide further responses to the remaining items in the bulletin.

In response to item 1b, SCE described prior inspections and inspection results of pressurizer penetrations and steam space piping connections which had been performed at SONGS 2 and 3. SCE's response included the basis for concluding that SONGS 2 and 3 satisfies the applicable regulatory requirements related to the integrity of pressurizer penetrations and steam space piping connections.

In response to item 1c in the bulletin, SCE provided a description of the Alloy 82/182/600 pressurizer penetration and steam space piping connection inspection program that will be implemented at your plant during the next and subsequent refueling outages. The description included the items to be inspected; the percent coverage that would be performed at each location; the inspection methods to be used; the qualification standards for the inspection methods and personnel; the process used to resolve any inspection indications; the inspection documentation to be generated; and the basis for concluding that your plant will satisfy the applicable regulatory requirements related to the structural and leakage integrity of pressurizer penetrations and steam space piping connections. If leaking pressurizer penetrations or steam space piping connections are found, SCE indicated that follow-up nondestructive examination (NDE) will be performed to characterize flaws in the leaking penetrations. SCE provided its plans for expansion of the scope of NDE to be performed if circumferential flaws are found in any portion of the leaking pressurizer penetrations or steam space piping connections.

In response to item 1d in the bulletin, SCE explained why the inspection program identified in the response to item 1c in the bulletin is adequate for the purpose of maintaining the integrity of the SONGS 2 and 3 reactor coolant pressure boundary and for meeting all applicable regulatory requirements which pertain to your facility.

By letters dated May 30, 2006, and February 25, 2005, you provided a response to item 2a in Bulletin 2004-01 for SONGS Unit 2 and SONGS Unit 3, respectively. These letters provided a statement to the NRC indicating that the inspections described in your response to item 1c of the bulletin were completed during the SONGS 2 and 3 outages (subsequent to the Bulletin 2004-01 issuance) and a description of the as-found condition of the locations inspected was provided. SCE also described any findings of relevant indications of through-wall leakage and follow-up NDE performed to characterize flaws in leaking penetrations or steam space piping connections. A summary of all relevant indications found by NDE, a summary of the disposition of any findings of boric acid, and a description of any corrective actions taken and/or repairs made as a result of the indications found was also provided in this letter.

R. Rosenblum

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The NRC staff has completed its activities associated with the review of SCE's responses to Bulletin 2004-01 and finds SCE's response to be acceptable. It should be noted that industry commitments or staff regulatory actions may result in the need for you to modify your plans for the inspection and repair of items discussed in Bulletin 2004-01. It is the staff's expectation that you will revise your plan for the inspection and repair of items discussed in Bulletin 2004-01 consistent with other industry commitments or staff regulatory actions. This closes the staff's efforts with regard to the review of the Bulletin 2004-01 response for SONGS 2 and 3.

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

cc: See next page

The NRC staff has completed its activities associated with the review of SCE's responses to Bulletin 2004-01 and finds SCE's response to be acceptable. It should be noted that industry commitments or staff regulatory actions may result in the need for you to modify your plans for the inspection and repair of items discussed in Bulletin 2004-01. It is the staff's expectation that you will revise your plan for the inspection and repair of items discussed in Bulletin 2004-01 consistent with other industry commitments or staff regulatory actions. This closes the staff's efforts with regard to the review of the Bulletin 2004-01 response for SONGS 2 and 3.

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

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*/RA/*

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

Docket Nos. 50-361 and 50-362

cc: See next page

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March 2006