From: Thadani, Mohan
Sent: Thursday, October 28, 2010 11:32 AM
To: awharrison@stpegs.com
Cc: Lupold, Timothy; Lent, Susan
Subject: Request for Additional Information ME4766 And ME4767-Relif Request RR-ENG-3-01

Importance: High

Wayne:

By letter dated September 20, 2010, (Agencywide Documents Access and Management System Accession Number ML102700174), STP Nuclear Operating Company (the licensee for South Texas Project, Units 1 and 2) submitted a request for relief (RR-ENG-3-01) from selected requirements of Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code). Specifically, the licensee requested relief from the volumetric examination described in ASME Code, Section XI, Table IWC-2500-1, Category C-B, Item Number C2.22 because of impractically. The request for relief applies to Class 2 piping and the third 10-year inservice inspection interval, in which the licensee adopted the 2004 Edition with no Addenda.

Based on review of the request, the NRC staff has determined that additional information is necessary to complete the review. The request for additional information is presented below.

In order to complete the review by the scheduled date, we request the licensee respond to the following request for additional information by December 20, 2010.

Thank you for your support.

Mohan C Thadani
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Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation
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OFFICE OF NUCLEAR REACTOR REGULATION
REQUEST FOR ADDITIONAL INFORMATION
REQUEST FOR RELIEF RR-ENG-3-01
SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNITS 1 & 2
THIRD 10-YEAR INSERVICE INSPECTION INTERVAL
DOCKET NUMBERS 50-498 AND 50-499 (TAC NUMBERS ME4766 AND ME4767)

Scope

By letter dated September 20, 2010, (Agencywide Documents Access and Management System Accession Number ML102700174), South Texas Generating Station, Units 1 and 2 (the licensee) submitted a request for relief (RR-ENG-3-01) from selected requirements of Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code). Specifically, the licensee requested relief from the volumetric examination describe in ASME Code, Section XI, Table IWC-2500-1, Category C-B, Item Number C2.22 because of impractically. The request for relief applies to Class 2 piping and the third 10-year inservice inspection interval, in which the licensee adopted the 2004 Edition with no Addenda.

1. The letter states that the nozzle configuration differs from the figures for item Number C2.22 without out a sketch showing the nozzle configuration. Provide a sketch of the nozzle configuration with approximate dimension for nozzle size, bore holes, and geometric locations within the steam generator. Identify nozzle welds, if any. Identify the nozzle and weld materials and cladding. Provide the specific identification for the nozzle(s).

2. The letter did not propose an alternative to the volumetric examination. Explain the difficulties associated with applying an alternate nondestructive examination method. For example with Code Class 1 steam generator inner nozzle radius examinations, licensees have opted to use visual in lieu of volumetric examinations. Provide a discussion on the applicability of using an alternate examination and include in the discussion any restrictions that may hinder such an examination.

3. The letter mentioned an absence of high thermal and mechanical stresses with the vessel and connected piping system. A concern with the exit end of the nozzle (ends of the multiple bore openings) is cracking from temperature change cycling. Provide a discussion on temperature change cycling, frequency of cycling, and the approximate temperature changes within a cycle. Discuss the effects of any temperature change cycling on thermal fatigue cracking. Discuss the effects of thermal fatigue cracking on nozzle and steam generator performance.