NUCLEAR ENERGY INSTITUTE

James H. Riley
DIRECTOR
ENGINEERING
NUCLEAR GENERATION DIVISION

July 7, 2008

Ms. Catherine Haney
Director, Division of Operating Reactor Licensing
U.S. Nuclear Regulatory Commission
Mail Stop O-8 E1A
Washington, DC 20555

Subject: H*/B* Expert Panel Technical Evaluation - Re-assessment of Coefficient of Thermal Expansion Data for SA-508 Steel.

Project Number: 689

Dear Ms. Haney:

Industry representatives met with the NRC staff on May 14, 2008, to (1) provide an update on the scope of work of the Industry H*/B* Expert Panel (EP), (2) discuss the status of the EP technical review of the permanent H*/B* alternate repair criteria, and (3) discuss the status of resolving the NRC comments on the H*/B* alternate repair criteria.

One of the first priority tasks for the industry EP was to perform a re-assessment of SA-508 coefficient of thermal expansion (CTE) data measurements. This work is important in addressing the staff concern regarding tube pull out resistance and the suggested possibility of no thermally induced contact pressure within tube sheet joint. This letter submits the technical evaluation of measurements of the CTE of SA 508 steel.

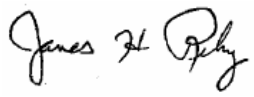
Enclosure 1 provides a detailed assessment of CTE data obtained from Precision Measurements and Instrument Corporation (PMIC) laboratory. The significant point of this work is that CTE's calculated from the locally weighted scatter-plot smoothing (LOWESS) fit are in good agreement with ASME 1998 tabulated values. Further evaluation of uncertainties in ASME Code CTE properties was reported during the May 14th meeting and the industry concluded that the variability of existing CTE data around ASME Code values was reasonably well characterized by normal distribution. Details of the uncertainty analysis were provided during the meeting. The industry conclusion is that the CTE are within expected variability of ASME material property distribution.

1776 I Street, NW | Suite 400 | Washington, DC | 20006-3708 | P: 202.739.8137 | F: 202. 533.0193 | jhr@nei.org | www.nei.org

At the conclusion of the May 14th meeting the NRC staff indicated that it was not prepared to provide any feedback on these issues at the meeting since the staff needed more time to study the issues. This submittal is part of industry efforts to provide detailed data and evaluations to support the NRC's review of industry work.

If you have any questions, please contact me at 202.739.8137; jhr@nei.org or Mike Melton at 202.739.8049;mam@nei.org.

Sincerely,



James H. Riley

Enclosure