Nuclear Operating Company

South Texas Project Electric Generating Station 4000 Avenue F – Suite A Bay City, Texas 77414

November 10, 2009
U7-C-STP-NRC-090200

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville MD 20852-2738

South Texas Project
Units 3 and 4
Docket Nos. 52-012 and 52-013
Supplemental Response to Request for Additional Information

Attached is a supplemental response to an NRC staff question included in Request for Additional Information (RAI) letter number 224 related to Combined License Application (COLA) Part 2, Tier 2, Section 5.3.

The attachment supplements the response to the RAI question listed below:

RAI 05.03.02-2

There are no commitments in this letter.

If you have any questions, please contact me at (361) 972-7136, or Bill Mookhoek at (361) 972-7274.

STI 32573186

D091
NRO

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 11/10/09

Scott Head
Manager, Regulatory Affairs
South Texas Project Units 3 & 4

gsc

Attachment:

Question 05.03.02-2 Supplement

cc: w/o attachment except*
(paper copy)

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RAI 05.03.02-2

SUPPLEMENTAL QUESTION

During a telephone conference with the NRC Staff on October 19, 2009, STPNOC agreed to supplement the initial response to RAI 05.03.02-2 with additional information regarding the design comparison between the STP 3 & 4 reactor pressure vessels (RPVs) and the reference Japanese RPV for which interim stress analysis information was provided to develop the Pressure and Temperature Limits Report (PTLR) for the STP 3 & 4 RPVs. STPNOC also agreed to provide the schedule for completing the stress analysis of the STP 3 & 4 RPVs using the ANSYS computer code.

RESPONSE:

The specifications for the STP 3 & 4 reactor pressure vessels (RPVs) are basically the same as the specifications for the reference Japanese RPV. One difference is the thickness of the RPV bottom head, which is 253 mm nominal (250 mm minimum) for the reference Japanese vessel and 268 mm nominal (265 mm minimum) for STP 3 & 4. The stresses associated with the bottom head are not among the most limiting stresses and the additional thickness is not expected to result in a higher stress for this component.

One other difference involves the design and material codes applied to each vessel. The ASME material code is specified for the STP 3 & 4 RPVs, while the Japanese code and standard (MITI501) was applied to the design of the reference Japanese ABWR RPV. Stress analysis results are expected to be similar; however, small differences might occur due to the use of the different codes.

The actual finite element stress analysis of the STP 3 & 4 RPVs using ANSYS is being performed as the STP 3 vessel is being built. The draft stress analysis reports for each nozzle and for each portion of the RPV are being completed separately, as the components are being built. These draft stress analysis reports are expected to be issued for internal review in early 2010. Review and Professional Engineer signoff of these reports will be completed by the end of 2010. These stress analysis results from ANSYS are expected to be very similar to the results presented in the STP 3 & 4 PTLR, Rev. 0.

No COLA changes are required as a result of this RAI response.