

August 31, 2009

Mr. Scott Head, Manager
Regulatory Affairs
STP Nuclear Operating Company
P. O. Box 289
Wadsworth, TX 77483

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 222 RELATED TO SRP
SECTIONS 5.2 AND 5.4 FOR THE SOUTH TEXAS PROJECT COMBINED LICENSE
APPLICATION

Dear Mr. Head

By letter dated September 20, 2007, STP Nuclear Operating Company (STP) submitted for approval a combined license application pursuant to 10 CFR Part 52. The U. S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, you are requested to respond within **30** days of the date of this letter. If changes are needed to the safety analysis report, the staff requests that the RAI response include the proposed wording changes.

S. Head

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If you have any questions or comments concerning this matter, I can be reached at 301-415-6197 or by e-mail at Tekia.Govan@nrc.gov or you may contact George Wunder at 301-415-1494 or George.Wunder@nrc.gov.

Sincerely,

/RA/

Tekia V. Govan, Project Manager
ABWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-012
52-013

eRAI Tracking No. 2831 and 3527

Enclosure:
Request for Additional Information

cc: William Mookhoek
Richard Bense

S. Head

-2-

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NAME	TScarborough/ JBudzynski	NRay/ JDonoghue	TGovan	SBrock	GWunder
DATE	08/12/2009	08/19/2009	08/19/2009	08/20/2009	08/31/2009

***Approval captured electronically in the electronic RAI system.**

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Request for Additional Information No. 2831 Revision 2

South Texas Project Units 3 and 4 South Texas Project Nuclear Operating Co Docket No. 52-012 and 52-013 SRP Section: 05.02.01.02 - Applicable Code Cases Application Section: 5.2.1.2

QUESTIONS for Component Integrity, Performance, and Testing Branch 2 (ESBWR/ABWR Projects)
(CIB2)

05.02.01.02-1

ABWR DCD Tier 2, Subsection 5.2.1.2 states that Regulatory Guide (RG) 1.84, "Design, Fabrication, and Materials Code Case Acceptability, ASME Section III," RG 1.85, "Materials Code Case Acceptability -- ASME Section III, Division 1," and RG 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," provide a list of ASME Design and Fabrication Code cases that have been generically approved by the NRC staff, and that Code cases on this list may, for design purposes, be used until appropriately annulled. The NRC has withdrawn RG 1.85 following its incorporation into RG 1.84. The STP COL applicant is requested to indicate the Code Cases listed in RG 1.147 planned to be used at STP Units 3 & 4 as part of fully describing the ISI program.

05.02.01.02-2

The STP COL applicant is requested to specify the ASME Code cases to be applied at STP Units 3 & 4, including their acceptance in RG 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code," and any conditions specified in RG 1.192 as part of fully describing the IST program. The STP COL applicant should submit a request for relief from or alternative to the ASME OM Code where a Code case planned to be used is not accepted in RG 1.192. RG 1.206, "Combined License Applications for Nuclear Power Plants (LWR Edition)," provides guidance for information to be provided by COL applicants requesting relief from or alternatives to the ASME OM Code.

05.02.01.02-3

ABWR DCD Tier 2, Subsection 5.2.1.2 states that annulled cases are considered active for equipment that has been contractually committed to fabrication prior to the annulment. The STP COL applicant is requested to discuss its plans to implement this provision regarding the use of annulled Code Cases in the ABWR DCD.

05.02.01.02-4

STP FSAR Section 1.8, "Conformance with Standard Review Plan and Applicability of Codes and Standards," states that the STP FSAR conforms to RG 1.84, Revision 33. STP FSAR Table 5.2-1, "Reactor Coolant Pressure Boundary Components Applicable Code Cases," specifies several changes to the list of code cases provided in the ABWR DCD. Some changes relate to Tier 2* information and the bases for the changes are not clear. The NRC staff requests that the STP COL applicant clarify the

application of RG 1.84 (Revision 33) and the changes to the ABWR DCD. Some examples where clarification is needed are as follows:

- a. Code Case N-71-17 has been added to the table, but RG 1.84 (Revision 33) lists Code Case N-71-18 as the approved revision to this code case. Also, the table does not indicate that this code case is conditionally accepted in RG 1.84. As part of clarifying the use of Code Case N-71, the applicant is requested to provide a list of components to be fabricated using this code case and the materials that will be used to fabricate each component.
- b. Code Case N-580-2 has been added to Table 5.2-1, but this code case is not listed in RG 1.84 such that the applicant will need to justify its application.
- c. Code cases related to RG 1.147 added to Table 5.2-1 are not discussed in STP FSAR Section 1.8.
- d. The table continues to list some code cases that have been superseded by later revisions, such as N-71-15 and N-319, listed in RG 1.84 (Revision 33).

Request for Additional Information No. 3527 Revision 2

**South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co
Docket No. 52-012 and 52-013**

**SRP Section: 05.04 - Reactor Coolant System Component and Subsystem Design
Application Section: 5.4**

QUESTIONS for Reactor System, Nuclear Performance and Code Review (SRSB)

05.04-2

This request for additional information is a follow-up RAI to the applicant's response to RAI ID 2771 (RAI 5.4-1, ML091880282) in letter U7-C-STP-NRC-090062 dated July 2, 2009. The RAI response referred to FSAR Section 13.5.3.3.1 which discusses administrative procedures and, according to the applicant, these procedures will be developed only 6 months prior to pre-operational testing. However, the applicant did not address the RAI with respect to the contingency plan related to the specifics questions stated in the RAI. Confirm that the following staff concerns will be addressed in the administrative procedure when they are developed with respect to RIP shaft lifting or maintenance plug removal.

- Worst case scenario evaluated
- Impact on personnel and plant
- Assumptions made in respect to contingency plan
- Response time of plant and personnel in regard to contingency plan
- Worst case flow rate of drain down of vessel
- Number of pumps plant procedures allow to perform concurrent maintenance
- activities with the potential to drain the vessel
- Recovery phase.