

April 1, 2010

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 329 RELATED TO
SRP SECTIONS 9.1.1 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 301-415-8484 or by e-mail at Tom.Tai@nrc.gov or you may contact George Wunder at 301-415-1494 or George.Wunder@nrc.gov.

Sincerely,

Tom M. Tai, Senior Project Manager
ABWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-012
52-013

eRAI Tracking No. 4561

Enclosure:
Request for Additional Information

cc: Mr. William Mookhoek
Mr. James Agles

S. Head

- 2 -

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Request for Additional Information

cc: Mr. William Mookhoek
Mr. James Agles

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OFFICE	SEB2	SEB2	NGE2/PM	NGE2/L-PM
NAME	SChakrabarti	KHawkins	TTai	GWunder
DATE	03/24/2010	03/25/2010	03/25/2010	03/31/2010

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

OFFICIAL RECORD COPY

Request for Additional Information No. 4561 Revision 3

3/30/2010

South Texas Project Units 3 and 4
STPNOC

Docket No. 52-012 and 52-013

SRP Section: 09.01.01 - Criticality Safety of Fresh and Spent Fuel Storage and Handling
Application Section: FSAR Section 9.1.1

QUESTIONS for Structural Engineering Branch 2 (ESBWR/ABWR Projects) (SEB2)

09.01.01-4

Spent Fuel Racks Structural Evaluation

To address COL License Information Item 9.7, the applicant stated in FSAR Section 9.1.6.7 that a confirmatory structural evaluation of the racks will be provided in an FSAR amendment in accordance with 10 CFR 50.71(e) prior to receipt of fuel. Since structural integrity of the racks must be demonstrated under all postulated loading conditions for providing protection to the spent fuel from mechanical damage, the applicant is requested to provide details of analysis and design of the spent fuel racks using the guidance in SRP 3.8.4, Appendix D, in order for the staff to assess structural adequacy of the spent fuel racks.

09.01.01-5

New Fuel Inspection Stand Seismic Capability

To address COL License Information Item 9.5, the applicant stated in FSAR Section 9.1.6.5 that the risk of dumping personnel or the fuel inspection stand into the spent fuel pool during an SSE was addressed by a modified design for the New Fuel Inspection Stand (NFIS). In FSAR Section 9.1.4.2.3.2 the applicant stated that the modified NFIS is anchored into a pit on the refueling floor, and will retain the fuel assembly and maintain structural integrity during an SSE. The applicant removed ABWR DCD Figure 9.1-4 showing the NFIS included in the DCD. However, no similar Figure was included in the FSAR to replace the DCD Figure. Further, the description of the NFIS and its anchoring included in the FSAR is not sufficient for the staff to assess structural integrity of the stand or the anchorage during an SSE. Therefore, the applicant is requested to include in the FSAR diagrams showing primary structural elements of the modified NFIS and its anchorage, and describe how structural adequacy of the stand and its anchorage was determined in order to adequately address COL License Information Item 9.5.

Enclosure