

September 2, 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. 223 RELATED TO
SRP SECTION 15.00.03 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 60 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 301-415-4093 or by e-mail at Adrian.Muniz@nrc.gov or you may contact George Wunder at 301-415-1494 or George.Wunder@nrc.gov.

Sincerely,

/RA/

Adrian Muñiz, Project Manager
ABWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-012
52-013

eRAI Tracking No. 3387

Enclosure:
Request for Additional Information

cc: William Mookhoek
James Tomkins

S. Head

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If you have any questions or comments concerning this matter, I can be reached at 301-415-2849 or by e-mail at Adrian.Muniz@nrc.gov or you may contact George Wunder at 301-415-1494 or George.Wunder@nrc.gov.

Sincerely,

/RA/

Adrian Muñiz, Project Manager
ABWR Projects Branch
Division of New Reactor Licensing
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NRO-002

OFFICE	RSAC/TR	RSAC/BC	NGE2/PM	OGC	NGE2/L-PM
NAME	JLee	CLauron	AMuñiz	SKirkwood	GWunder
DATE	7/27/09	7/29/09	9/2/09	8/18/09	8/19/09

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

OFFICIAL RECORD COPY

Request for Additional Information No. 3387 Revision 2

**South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co**

Docket No. 52-012 and 52-013

**SRP Section: 15.00.03 - Design Basis Accidents Radiological Consequence Analyses for
Advanced Light Water Reactors**

Application Section: 15.6

QUESTIONS for ESBWR/ABWR Projects 2 (NGE2)

15.00.03-1

The regulatory basis for incorporating information by reference to the STP Units 3 and 4 COL FSAR is 10 CFR 52.79(c) which states, in part, that if a COL application references a standard design approval, then the FSAR need not contain information or analyses submitted to the Commission in connection with the design approval, provided that the FSAR must either include or incorporate by reference the standard design approval final safety analysis report and must contain, in addition to the information and analyses otherwise required, information sufficient to demonstrate that the characteristics of the site fall within the site parameters specified in the design approval.

Regulatory Guide 1.206, "Combined License Applications for Nuclear Power Plants," Regulatory Position C.III.1, Section C.1.15.6.5, "Radiological Consequences," states the COL applicant should "show that site-specific short-term χ/Q values for the EAB, LPZ, and control room provided in Section 2.3.4 of the FSAR are within the χ/Q s assumed in the DCD."

The STP FSAR, Revision 2, Table 15.6.5S-1 compared the site-specific control room (CR) values with the ABWR CR χ/Q values from DCD Tier 2 Table 15.6-14 and concluded that, with two exceptions, the ABWR DCD CR χ/Q values were not exceeded. The two exceptions were in regards to (1) the calculated 0–8 hour χ/Q value for a turbine building release ($5.18 \text{ E-}04 \text{ sec/m}^3$) which exceeded the corresponding ABWR DCD χ/Q value ($5.17\text{E-}04 \text{ sec/m}^3$) and (2) the calculated 4–30 day χ/Q value for a turbine building release ($9.13\text{E-}05 \text{ sec/m}^3$) which exceeded the corresponding ABWR DCD χ/Q value ($8.53\text{E-}05 \text{ sec/m}^3$).

Provide the control room radiological consequence analyses for the design basis accidents that are relevant to the turbine building releases and demonstrate that it meets the dose acceptance criterion of 5 rem TEDE specified in GDC 19 of Appendix A to 10 CFR 50.

Enclosure