

November 12, 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. 287 RELATED TO
SRP SECTION 8.1 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 301-415-4093 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. 3848

Enclosure:
Request for Additional Information

cc: William Mookhoek

S. Head

-2-

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

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Request for Additional Information No. 3848 Revision 3

**South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co
Docket No. 52-012 and 52-013
SRP Section: 08.01 - Electric Power - Introduction
Application Section: 08.01**

QUESTIONS for Electrical Engineering Branch (EEB)

08.01-2

In response to RAI 08.01-1, the applicant stated that the Regulatory Guides (RG) that are applicable to the ABWR design are provided in ABWR DCD, Tier 2, Table 1.8-20. In particular, the applicant stated that:

- (a) Because RG 1.160 was not listed in ABWR DCD, Tier 2, Table 8.1-1, there was no departure to this portion of the certified design and as such no change is required. The applicant also stated that this RG was applicable to the plant-specific Maintenance Rule Program.
- (b) RG 1.182 was applicable to the plant-specific Maintenance Rule Program
- (c) RG 1.180 relates to Instrument and Controls (I&C) platform departures and that is not applicable to the Electrical Power System and, therefore, no changes to FSAR Table 8.1-1 were required for this item.
- (d) Because RG 1.204 was also added to FSAR Section 8A.1.2 in COLA Revision 2, the RG would be also added to FSAR Table 8.1-1.

The staff does not agree with the applicant's position regarding item (c). Operating experience indicates that solid state and digital components are being used in many safety-related systems, including the electrical power system. Electromagnetic interference (EMI) and radio-frequency interference (RFI), and power surges have been identified as environmental conditions that can affect the performance of safety-related electrical equipment. GDC 4 requires that SSCs important to safety shall be designed to accommodate the effects of and to be compatible with the environmental conditions associated with normal operation, maintenance, testing, and postulated accidents, including LOCAs. Such environmental effects could result in the common cause/common mode failure of independent and redundant system and component. The staff requests the applicant to discuss whether solid state and digital devices are being used in the STP electrical power system. If such devices are being used, the applicant is requested to discuss how the GDC 4 requirements will be met for solid state and digital components regarding the EMI/RFI and power surges.