

August 5, 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. 191 RELATED TO  
SRP SECTION 07.04, 07.05 and 07.07 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](mailto:Adrian.Muniz@nrc.gov) or you may contact George Wunder at 301-415-1494 or by e-mail at [George.Wunder@nrc.gov](mailto:George.Wunder@nrc.gov).

Sincerely,

**/RA/**

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

Docket Nos. 52-012  
52-013

eRAI Tracking Nos. 3134, 3135 and 3138

Enclosure:  
Request for Additional Information

cc: William Mookhoek  
James Cook

S. Head

-2-

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Adrian Muniz, Project Manager  
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Enclosure:  
Request for Additional Information

cc: William Mookhoek  
James Cook

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NRO-002

OFFICE	ICE2/TR	ICE2/BC	NGE2/PM	OGC	NGE2/L-PM
NAME	JZhao	IJung	AMunoz	SKirkwood	GWunder
DATE	6/16/09	6/17/09	7/2/09	7/24/09	8/5/09

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

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**Request for Additional Information No. 3134 Revision 02**

**South Texas Project Units 3 and 4  
South Texas Project Nuclear Operating Co.  
Docket No. 52-012 and 52-013  
SRP Section: 07.04 - Safe Shutdown Systems  
Application Section: 07.04**

QUESTIONS for Instrumentation, Controls and Electrical Engineering 2 (ESBWR/ABWR Projects)  
(ICE2)

**07.04-1**

STP COLA took Departure STD DEP T1 3.4-1 on the data communication systems from the generic ABWR DCD. For the new digital instrumentation and control (DI&C) system to be used for the STP units 3 and 4, provide sufficient information on how the remote transfer devices are to be implemented between the safety related DI&C system and remote shutdown system (RSS) and also on how to prevent the remote transfer devices from adversely impacting both the safety related DI&C system and RSS since no information has been provided for this transferring device.

Enclosure

**Request for Additional Information No. 3135 Revision 02**

**South Texas Project Units 3 and 4  
South Texas Project Nuclear Operating Co  
Docket No. 52-012 and 52-013  
SRP Section: 07.05 - Information Systems Important to Safety  
Application Section: 07.05**

QUESTIONS for Instrumentation, Controls and Electrical Engineering 2 (ESBWR/ABWR Projects)  
(ICE2)

**07.05-1**

Departure STD DEP 7.5-1 which requires prior NRC approval, proposed some changes to the post-accident monitoring (PAM) parameters. Table 7.2-1 in COLA FSAR changed the PAM drywell high pressure from 0-0.036 MPaG to -15.0 – 30.0 kPaG. Table 7.5-2 in COLA FSAR does not show any change to the narrow range 0.034 – 0.021 MpaG, but the wide range has been changed from 0-100% to 0-110%. Sections 7.5.2.1(2)(b) in COLA FSAR lists the original narrow range as -34.32 to +34.32 kPaG. Provide clarification for the changes to various ranges and resolve the inconsistency.

**Request for Additional Information No. 3138 Revision 02**

**South Texas Project Units 3 and 4  
South Texas Project Nuclear Operating Co  
Docket No. 52-012 and 52-013  
SRP Section: 07.07 - Control Systems  
Application Section: 07.07**

QUESTIONS for Instrumentation, Controls and Electrical Engineering 2 (ESBWR/ABWR Projects)  
(ICE2)

**07.07-3**

Departure STD DEP T1 3.4-1 proposed to eliminate the obsolete data communication technology in the certified ABWR DCD. This departure also proposed to eliminate references to the Essential Multiplexer System (EMS) and the Non-Essential Multiplexer System (NEMS) originally envisioned in the ABWR architecture and replaces them with separate and independent system level data communication capabilities. However, the MUX and multiplexing network are still used in COLA FSAR Tier 2 Section 7.7.1.2 for rod control and information system (RCIS). Provide sufficient clarification on why the multiplexing network is still kept for the RCIS system and resolve the inconsistency between Departure STD DEP T1 3.4-1 and COLA FSAR Tier 2 Section 7.7.1.2. Also, provide sufficient information on how the cross-channel communication link between the two rods action control subsystem (RACS) channels is to be implemented for the RCIS system.