

August 25, 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. 251 RELATED TO  
SRP SECTION 7.3 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 [George.Wunder@nrc.gov](mailto: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. 3131

Enclosure:  
Request for Additional Information

cc: William Mookhoek  
James Cook

S. Head

-2-

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Request for Additional Information

cc: William Mookhoek  
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NRO-002

OFFICE	ICE2/TR	ICE2/BC	NGE2/PM	OGC	NGE2/L-PM
NAME	JZhao	IJung	AMuñiz	SKirkwood	GWunder
DATE	6/26/09	6/30/09	8/25/09	8/14/09	8/14/09

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

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**Request for Additional Information No. 3131 Revision 02**

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**South Texas Project Units 3 and 4  
South Texas Project Nuclear Operating Co  
Docket No. 52-012 and 52-013  
SRP Section: 07.03 - Engineered Safety Features Systems  
Application Section: 07.03**

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

**07.03-2**

Departure STD DEP T1 3.4-1 took a deviation from the certified ABWR DCD on the data communication and control system. For the safety related residual heat removal (RHR) system, COLA FSAR Tier 2 Section 7.3.1.1.4(3)(i) states that "this action must occur within a limited interval." Provide specific time requirement for this action and also include what would happen and any mitigations are provided if the operator does not act within the limited time interval.

**07.03-3**

Departure STD DEP T1 2.4-2 proposed changes to the feedwater line break mitigation which include the monitoring of the feedwater line differential pressure. The COLA FSAR Tier 2 Section 7.3.1.1.2(3)(w) added the monitoring of the feedwater line differential pressure. Provide sufficient information on how and where the feedwater line differential pressure is measured. In addition, provide sufficient information on how the detection of the feedwater line differential pressure is to be used in the feedwater pump control logics.

**07.03-4**

COLA FSAR Sections 7.3.2.3.2, 7.3.2.4.2, and 7.4.2.3.2 state that the parent RHR system annunciates activity at the loop level and the individual mode of the RHR system is not separately annunciated. STD DEP 1.8-1 updated the IEEE 603 "Standard Criteria for Safety Systems for Nuclear Generating Stations" to the 1991 version, as required in 10 CFR 50.55a(h). According to Section 5.8 of IEEE 603-1991 system status indication shall be provided. Since there are a few operation modes (low pressure flooder, wetwell and drywell spray cooling, and suppression pool cooling) for the RHR system, the display of the operation mode for the RHR system should be provided to minimize the possibility of ambiguous indications that could be confusing to the operator. Provide adequate justification for this design.

Enclosure