

July 17, 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. 154 RELATED TO
SRP SECTION 16 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.

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

Sincerely,

/RA/

Stacy Joseph, Project Manager
ESBWR/ABWR Projects Branch 2
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-012
52-013

eRAI Tracking Nos. 3043 and 3081

Enclosures:
Request for Additional Information

cc: William Mookhoek
G. Steve Cashell

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NRO-002

OFFICE	CTSB/TR	CTSB/BC	NGE2/PM	OGC	NGE2/L-PM
NAME (3043)	NAshkeboussi	MKowal	SJoseph	SKirkwood	GWunder
DATE	6/8/2009	6/12/2009	7/17/09	7/6/2009	7/16/2009
OFFICE	CTSB/TR	CTSB/BC	NGE2/PM	OGC	NGE2/L-PM
NAME (3081)	DDority	MKowal	SJoseph	SKirkwood	GWunder
DATE	6/8/2009	6/12/2009	7/17/09	7/8/2009	7/16/2009

***Approval captured electronically in the electronic RAI system.
OFFICIAL RECORD COPY**

Request for Additional Information No. 3043 Revision 2

**South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co
Docket No. 52-012 and 52-013
SRP Section: 16 - Technical Specifications
Application Section: 3.5 ECCS**

QUESTIONS for Technical Specification Branch (CTSB)

16-4

Provide justification for increasing the time period specified for the CTG to start and achieve steady state voltage and frequency from within 2 minutes to less than 10 minutes, in Section 3.5.1 Actions B 1.1 and C 1.1.1.

Required Action B.1.1 verifies that the CTG is functional and is implemented when the RCIC is inoperable OR the RCIC and any one other ECCS subsystem are inoperable. This required action is consistent with the GTS 3.5.1 Required Action B.1.1 except for the specified time period within which the CTG must be verified to start and achieve steady state voltage and frequency. No justification is provided in this Bases for the increase in time period for the CTG to start and achieve steady state voltage and frequency.

Required Action C.1.1.1 verifies that the CTG is functional and is implemented when the RCIC and any two other ECCS subsystems are inoperable provided at least one HPCF subsystem is OPERABLE. This required action is consistent with GTS 3.5.1 Required Action C.1.1.1 except for the time period within which the CTG must be verified to start and achieve steady state voltage and frequency. The bases for PTS 3.5.1 Required Action C.1.1.1 does not provide a justification for the increase in time period for the CTG to start and achieve steady state voltage and frequency.

This change is identified in STP 3 & 4 DCD as STD DEP 8.3-1. Section 9.5.11 Combustion Turbine/Generator (CTG) of the STP 3 & 4 FSAR describes the CTG as automatically starting, coming up to speed, reaching nominal voltage and frequency, and accepting load within 10 minutes of receipt of its start signal, and that the reconfiguration necessary to shed plant investment protection (PIP) loads for emergency shutdown loads can be accomplished from the main control room within 10 minutes of the onset of the start of a station blackout. It further states that this meets the requirements of Regulatory Guide 1.155 such that a station blackout coping analysis is not required. While this change description does meet the requirements for Regulatory Guide 1.155 so that a station blackout coping analysis is not required, this is not a justification for the change in PTS 3.5.1 Required Action B.1.1 and C.1.1.1. Regulatory Guide 1.155 is NRC staff guidance to licensees of existing plants (1988) to respond to a postulated accident scenario. A demonstration of the ability of a plant to connect its alternate AC power source to the safety buses when the plant is in a degraded state (inoperable equipment) is not discussed in Reg. Guide 1.155 and is not applicable to the technical specifications.

Enclosure

16-5

Correct the logical connectors in PTS 3.5.1 Action C. In Action C, the first "AND" and the "OR" connectors are incorrectly aligned, changing the meaning of the required actions. Revise the logical connectors in Action C to match the GTS.

16-6

Provide the units for SR 3.5.2.2.b. SR 3.5.2.2.b requires the verification of condensate storage tank water level. The PTS and GTS do not provide units for the level value. The Writer's Guide for Plant-Specific Improved Technical Specifications, TSTF-GG-05-01, Section 3.3.4 advises using units that correlate with the units the operator reads from the instrumentation.

Request for Additional Information No. 3081 Revision 0

**South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co
Docket No. 52-012 and 52-013
SRP Section: 16 - Technical Specifications
Application Section: TS Section 3.8 Electrical**

QUESTIONS for Technical Specification Branch (CTSB)

16-7

Provide justification for increasing the time period specified for the CTG to start and achieve steady state voltage and frequency from within 2 minutes to less than 10 minutes, in STD DEP 8.3-1. Also discuss the reasons for the 10 minute criterion on CTG functionality in the bases for the ACTIONS of PTS 3.8.1, and also PTS 3.5.1, 3.8.4, 3.8.9, and 3.8.11, which have the same action requirement for verifying CTG functionality.

Background:

The ABWR DCD section 3.8.1 Technical Specifications state for this CONDITION, the REQUIRED ACTION is, "Verify the CTG is functional by verifying the CTG starts and achieves steady state voltage and frequency in less than 2 minutes."

The analogous STP Technical Specification for this CONDITION and REQUIRED ACTION is, "Verify the CTG is functional by verifying the CTG starts and achieves steady state voltage and frequency in less than 10 minutes."

This change is identified in STP 3&4 STD DEP 8.3-1. Section 9.5.11 Combustion Turbine/Generator (CTG) of the STP 3&4 FSAR describes the CTG as automatically starting, coming up to speed, reaching nominal voltage and frequency, and accepting load within 10 minutes of receipt of its start signal, and that the reconfiguration necessary to shed plant investment protection (PIP) loads for emergency shutdown loads can be accomplished from the main control room within 10 minutes of the onset of the start of a station blackout. It further states that this meets the requirements of Regulatory Guide 1.155 and 10 CFR 50.63 such that a station blackout coping analysis is not required. While this change description does meet the requirements for Regulatory Guide 1.155 and 10 CFR 50.63 so that a station blackout coping analysis is not required, this is not a justification for the change. A demonstration of the ability of a plant to connect its alternate AC power source to the safety buses when the plant is in a degraded state (inoperable equipment) is not discussed in Reg. Guide 1.155 or 10 CFR 50.63 and is not applicable to the technical specifications. STP should commit to performing this verification prior to fuel load and not under adverse conditions.

Enclosure