

July 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. 142 RELATED TO
SRP SECTION 14.02 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. 2944

Enclosures:
Request for Additional Information

cc:
Mr. William Mookhoek
Mr. G. Steve Cashell

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NRO-002

OFFICE	CHPB/TR	CHPB/BC	NGE2/PM	OGC	NGE2/L-PM
NAME	RKellner	TFrye	SJoseph	SKirkwood	GWunder
DATE	5/29/2009	6/1/2009	7/2/09	6/12/2009	7/1/2009

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

Request for Additional Information No. 2944 Revision 2

**South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co
Docket No. 52-012 and 52-013
SRP Section: 14.02 - Initial Plant Test Program - Design Certification and New License
Applicants
Application Section: 14.2S.12.1.81**

QUESTIONS for Health Physics Branch (CHPB)

14.02-5

FSAR Section 14.2S.12.1.81 describes the preoperational test for personnel monitors and radiation survey instruments. Please provide the following amplifying information:

- (a) Describe the general types of personnel monitors and radiation survey instruments that are covered by this test.
- (b) The stated purpose of the test is "To verify the ability of the personnel monitors and radiation survey equipment to indicate and alarm normal and abnormal radiation levels." Will all of the monitors and instruments have alarm capabilities? If not, what other criteria will be used to ensure the proper operation of the equipment?
- (c) Under the heading "Prerequisites", the text states that "High radiation alarm setpoints shall be properly established based on sensor location, background radiation level, expected radiation level and low occupation dose prior to the test." Explain how the specification "low occupation dose" is used as an input in establishing radiation alarm setpoints for the personnel monitors and radiation survey instruments covered by this preoperational test.
- (d) Under the heading "General Test Methods and Acceptance Criteria", the text identifies various criteria, many of which appear to be focused on installed AC powered equipment with external interface(s) for alarms, annunciators, and recorders as well as interlock and bypass functions. How will the criteria be applied to simple portable or semi-portable AC/DC monitors and instruments that do not have all of the listed functions and capabilities?
- (e) The staff notes that RG 1.68 (Appendix A, Section 1.k (Preoperational Testing-Radiation Protection Systems)) includes "laboratory equipment used to analyze or measure radiation levels and radioactivity concentrations" as one of the system types that should receive pre-operational testing to demonstrate proper operation. Please include site-specific pre-operational test for laboratory equipment in FSAR Section 14.2S.12.1.81, or justify the absence of such testing.

Enclosure