

May 27, 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. 110 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](mailto:Stacy.Joseph@nrc.gov) or you may contact George Wunder at 301-415-1494 or [George.Wunder@nrc.gov](mailto: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 No. 2386

Enclosures:  
Requests for Additional Information

cc:  
William Mookhoek  
Steve Cashell

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cc:  
William Mookhoek  
Steve Cashell

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NRO-002

OFFICE	CQVB/TR	CQVB/BC	NGE2/PM	OGC	NGE2/L-PM
NAME	FTalbot	JNakoski	SJoseph	SKirkwood	GWunder
DATE	4/20/2009	4/20/2009	4/20/2009	4/30/2009	5/27/2009

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

## **Requests for Additional Information No. 2386 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: 14.2.13.2**

QUESTIONS for Quality and Vendor Branch 2 (ESBWR/ABWR) (CQVB)

### **14.02-2**

RG 1.68, Revision 3, states, "Some preoperational tests completed as part of the Initial Test Program (ITP) cover certain ITAAC completed prior to fuel load. For example, testing performed to demonstrate that safety-related SSCs will perform satisfactorily in service must be conducted under a program that satisfies Criterion XI, "Test Control," of Appendix B to 10 CFR Part 50, and may also satisfy testing required by the ITAAC process." The scope of the ITP, however, is not limited solely to safety-related SSCs. Consequently, this guide specifies the scope of plant SSCs to be tested to satisfy the requirements of GDC 1, "Quality Standards and Records" (as specified in Appendix A to 10 CFR Part 50), as well as the quality assurance criteria set forth in Appendix B to 10 CFR Part 50." In addition, Section II.3.E.v of NUREG-0800 Section 14.2 states that the applicant should include provisions to ensure that retesting required for modifications or maintenance remains in compliance with inspections, tests, analyses, and acceptance criteria requirements.

Based on the information in RG1.68 and NUREG-0800 above, the staff requests that STP update U7-P-SU01-0001, STP Unit 3 and 4 Startup Administration Manual (SAM), Revision 1, Page 32, Section 4.6.1.3, Acceptance Criteria, South Texas Project Nuclear Operating Company (STPNOC) to add information to describe the administrative controls necessary to ensure that retesting required for modifications or maintenance remains in compliance with the inspections, tests, analyses and acceptance criteria (ITAAC) requirements.

### **14.02-3**

In U7-P-SU01-0001, STP Unit 3&4 SAM, Page 38, Section 4.8.1, Test Procedure Change Notices (TPCN), under major TPCN, STPNOC must address a 50.59 like process for major TPCNs for Part 52 plants.

In accordance with 50.59(c)(1), a licensee may make changes to test procedures as described in the FSAR without obtaining a license amendment only if, the change to the technical specifications (TS) incorporated in the license is not required, and if the change, test or experiment does not meet any of the criteria in 50.59(c)(2).

For major TPCNs, the staff requests that STPNOC add a requirement to SAM Section 4.8.1 for COLs to evaluate and obtain a license amendment if it is revealed that a major

Enclosure

TPCN requires a change to the TS in accordance with 10 CFR 50.59(c)(1) and meets any one of eight criteria in 10 CFR 50.59(c)(2)(i) through (viii).

For additional information on 50.59 like change processes that affect the ABWR, refer to NRC Federal Register Notice (FRN), Licensees, Certifications and Approvals, dated August 28, 2007, Appendix A to Part 52, Rulemaking for the U.S. Advanced Boiling Water Reactor, Section VIII, Processes for Changes and Departures, Sub-sections VIII.5a, VIII.5b, VIII.5.c, VIII.5d, VIII.5e and VIII.5f, Pages 49546 through 49547.

#### **14.02-4**

RG 1.68, Revision 3, states, "The scope of the ITP is not limited solely to safety-related SSCs. Consequently, this guide specifies the scope of plant SSCs to be tested to satisfy the requirements of GDC 1, "Quality Standards and Records" (as specified in Appendix A to 10 CFR Part 50), as well as the quality assurance criteria set forth in Appendix B to 10 CFR Part 50. While all SSCs important to safety are required to be tested, all of them need not be tested to the same stringent requirements. Specifically, GDC 1 requires, in part, that SSCs important to safety shall be tested to quality standards commensurate with the importance of the safety functions to be performed. A graded approach is also inherent in the testing requirements of Criterion XI of Appendix B to 10 CFR Part 50."

Based on the above information in RG 1.68, the staff found that STPNOC did not address in the Startup Administration Manual (SAM) non-safety-related important to safety SSCs to be included in the preoperational and initial startup test programs (for example, the scope of the reliability assurance program could include non-safety-related SSCs that are important to safety).

The staff requests that STP revise U7-P-SU01-0001, "STP Unit 3 and 4 Startup Administration Manual," Revision 1, page 47, Section 6.3, "Regulations and Regulatory Requirements," to address non-safety-related SSCs that are important to safety. Examples of non-safety-related SSCs that are important-to-safety include the fire protection system, environmental qualification (EQ) of electrical equipment important to safety, the alternate rod injection system used to mitigate anticipated transients without scram, and non-safety related station blackout power sources (e.g., combustion turbine generators) used to meet the station blackout rule.

The staff also requests that STPNOC add 10 CFR 50.48, 10 CFR 50.49, and 10 CFR 50.62 to U7-P-SU01-0001, Section 6.3.1, "U.S. Code of Federal Regulations (CFR)," as these regulations relate to important to safety SSCs. The list of CFRs above may not be inclusive and the staff requests that STPNOC include any other rules that apply to non-safety-related SSCs that are important to safety.