December 30, 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. 006 RELATED TO SRP SECTION 15.08 FOR THE ABWR DESIGN CERTIFICATION RULE AMENDMENT APPLICATION

Dear Mr. Head

By letter dated June 20, 2009, STP Nuclear Operating Company (STPNOC) submitted for approval an application to amend the ABWR design certification rule (DCR) 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 301-415-8484 or by e-mail at Tom.Tai@nrc.gov.

Sincerely,

/RA/

Tom M. Tai, Senior Project Manager
ABWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-001

eRAI Tracking No. 4156

Enclosures:
Request for Additional Information

cc: William Mookhoek
Coley Chappell
Fred Puleo

If you have any questions or comments concerning this matter, I can be reached at 301-415-8484 or by e-mail at Tom.Tai@nrc.gov.

Sincerely,

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NAME	GThomas	JDonoghue	TTai
DATE	12/14/09	12/14/09	12/30/09

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

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Request for Additional Information No. 4156 Revision 5

ABWR Design Certification Amendment Project
South Texas Project Nuclear Operating Co
Docket No. 52-001
SRP Section: 15.08 - Anticipated Transients Without Scram
Application Section: 9.5.14

QUESTIONS for Reactor System, Nuclear Performance and Code Review (SRSB)

15.08-1

DCD 9.5.14.4, Instrumentation Requirements

Even though it is assumed that the reactor is shutdown, it is critical that when the reactor is being operated from a remote location, that the operators verify that the reactor is in shutdown condition. Moreover, for reactor control, one cannot control reactor pressure and reactor pressure vessel level without knowing the reactor power. There may be scenarios where there was only partial scram due to non-insertion of several control rods. RPV water level and RPV pressure indications are provided in the remote location, neutron flux monitoring instrumentation is not provided. Explain the bases for exclusion of the neutron flux monitoring system.

Request for Additional Information No. 4155 Revision 5

ABWR Design Certification Amendment Project
Docket No. 52-001
SRP Section: 05.02.02 - Overpressure Protection
Application Section: DCD Figure 5.1.-3

QUESTIONS for Reactor System, Nuclear Performance and Code Review (SRSB)

05.02.02-2

Re: DCD Figure 5.1-3 (Sheet 4 of 11)

Describe the type of analyses performed to ensure that the non-safety AFI line connected to the CUW tie-in lines to the feedwater system is designed such that it will not inadvertently impact the ability of safety-related RCIC system which injects to the reactor through the Feedwater system to perform its intended functions. Also, summarize the results of these analyses.