

August 2, 2011

Mr. Scott Head, Manager
Regulatory Affairs
Nuclear Innovation North America, LLC
4000 Avenue F
Bay City, TX 77414

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 383 RELATED TO
SRP SECTION 3.9.1 FOR THE SOUTH TEXAS PROJECT COMBINED
LICENSE APPLICATION

Dear Mr. Head:

By letter dated September 20, 2007, STP Nuclear Operating Company (STPNOC) 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

-2-

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 or you may contact George Wunder at 301-415-1494 or George.Wunder@nrc.gov.

Sincerely,

/RA/

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

Docket Nos. 52-012
52-013

eRAI Tracking No. 5952

Enclosure:
Request for Additional Information

cc: William Mookhoek
John Price
Richard Scheide
Loree Elton

S. Head

-2-

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NAME	JWu	JDHerrity	TTai	ASilvia	GWunder
DATE	7/26/11	7/26/11	7/26/11	8/1/11	8/1/11

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

OFFICIAL RECORD COPY

Request for Additional Information No. 5952 Revision 5

8/1/2011

South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co
Docket No. 52-012 and 52-013
SRP Section: 03.09.01 - Special Topics for Mechanical Components
Application Section: 3.9.1

QUESTIONS for Engineering Mechanics Branch 1 (AP1000/EPR Projects) (EMB1)

03.09.01-1

A follow-up to RAI 03.09.02-21

During a technical audit for Section 3.9.2, the staff reviewed the applicant's proprietary documents and found that ACSTIC2 computer code is being used to compute the forcing function due to the pump-induced acoustic pulsation. Since ACSTIC2 was not a listed program for use in the ABWR design, the staff requested that the applicant in RAI 03.09.02-21 address the ACSTIC2 program in the STP FSAR and that the V&V information for ACSTIC2 program be made available for review and approval by the staff. In its response to RAI 03.09.02-21, the applicant stated in Letter U7-C-NINA-NRC-110064 dated April 13, 2011, that the verification analysis is available in a WEC proprietary report for staff audit. In addition, the STP 3&4 COLA will be revised to include the ACSTIC2 computer code in STP FSAR where Subsection 3.9.1.2 states that the computer codes are addressed in Appendix 3D, and Appendix 3D references Subsection 4.1.4.1 for description of ACSTIC2. Therefore, the V&V of ACSTIC2 will be reviewed and evaluated by Section 3.9.1.2, "Applicable Computer Codes." Changes from Revision 5 of the COLA are shown in the markup attached to the response. However, the program shown in the markup is ACSTIC, not ACSTIC2. On June 22, 2011, the staff conducted an audit of ACSTIC2 computer code in the WES offices at Rockville, MD.

Based on the response to the RAI, the staff requests that the applicant clarify the difference between ACSTIC and ACSTIC2. Since the program ACSTIC2 was used for the analysis of STP 3&4 pump-induced pulsation, justify why ACSTIC was referenced in the STP FSAR. Based on the audit, the staff identified two open items. First, the program was developed for use on PWRs, not on BWRs, and the validation is based on the subcooled single phase water system and test data from PWR plants. The staff requests the applicant to provide justification, from K6 plant test data if appropriate, to show that the program is applicable to the ABWR design which is operating in a steam-water saturated condition. Second, the program was verified and validated for version 1.1 for use on PWRs. The applicant is requested to provide V&V package applicable to ACSTIC2 (version 1.3) which was used for the STP 3&4 analysis.