

PMSTPCOL PEmails

From: Tai, Tom
Sent: Tuesday, August 02, 2011 5:50 AM
To: Price, John E
Cc: STPCOL
Subject: STP - RAI 5952 ACSTIC2
Attachments: RAI 5952.doc

John,

Attached for your Wednesday's telecom is an advanced copy of the ACSTIC2 RAI. It is being issued in Letter 383.

Regards

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Hearing Identifier: SouthTexas34Public_EX
Email Number: 3030

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Subject: STP - RAI 5952 ACSTIC2
Sent Date: 8/2/2011 5:50:17 AM
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From: Tai, Tom

Created By: Tom.Tai@nrc.gov

Recipients:
"STPCOL" <STP.COL@nrc.gov>
Tracking Status: None
"Price, John E" <jeprice@STPEGS.COM>
Tracking Status: None

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RAI 5952.doc	32250	

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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.