

August 19, 2010

MEMORANDUM TO: Mark Tonacci, Chief
BWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

FROM: Tom Tai, Senior Project Manager **/RA/**
BWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

SUBJECT: AUGUST 23-25, 2010, AUDIT OF SOUTH TEXAS NUCLEAR
OPERATING COMPANY COMBINED LICENSE APPLICATION FLOW-
INDUCED VIBRATION ANALYSES

By letter dated September 16, 2009, South Texas Nuclear Operating Company (STPNOC, applicant) submitted Revision 3 of the South Texas Project (STP) Units 3 and 4 Combined License Application (COLA). The staff has identified a need to audit the analyses in support of the flow-induced vibration program for STP Units 3 and 4. The audit will take place at the Westinghouse facilities in Cranberry Township, Pennsylvania from August 23 - 25, 2010. A copy of the audit plan is enclosed.

Docket Nos.: 52-012
52-013

Enclosure:
As stated

CONTACT: Tom Tai, NRO/DNRL
301-415-8484

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ADAMS Accession No: ML102250144

NRO-002

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DATE	8/18/10	8/16/10	8/18/10	8/18/10	8/19/10

OFFICIAL RECORD COPY

**AUDIT PLAN TO REVIEW FLOW-INDUCED VIBRATION PROGRAM
SOUTH TEXAS PROJECT NUCLEAR OPERATING COMPANY UNITS 3 AND 4
COMBINED LICENSE APPLICATION**

APPLICANT: South Texas Project Nuclear Operating Company

APPLICANT CONTACT: Scott Head
John Price
Bill Mookhoek, et. al.

TIME: 8:30 a.m. to 5:00 p.m. on August 23 - 25, 2010

LOCATION: 1000 Westinghouse Drive
Cranberry Township, PA 16066

REVIEWERS: Yuken Wong (NRO/DE/EMB2)
Samir Ziada (NRC Consultant)
Omesh Chopra (NRC Consultant)
David Ma (NRC Consultant)
Tom Tai (NRO/DNRL/BWR)

BACKGROUND

On September 20, 2007 South Texas Project Nuclear Operating Company (STPNOC) submitted to the U.S. Nuclear Regulatory Commission (NRC), a Combined License Application (COLA) Final Safety Analysis Report (FSAR) to construct and operate two additional units (Units 3 and 4) based on the U.S. Advanced Boiling Water Reactor (ABWR) Certified Design Control Documents (DCD) at the South Texas Project Nuclear Power Plant (STPNPP) site located in the County of Matagorda near Bay City, Texas.

The NRC staff is reviewing the STP Units 3 and 4 combined license (COL) application that incorporates by reference the design certification for the Advanced Boiling Water Reactor (ABWR). However, in the area of dynamic testing and analyses under Chapter 3.9.2, STPNOC has advised the NRC that to address the issues associated with flow-induced vibration, STP Unit 3 will be the prototype plant and Unit 4 will be the non-prototype Category 1 plant. This is a change in the licensing position as described in Revision 3 of the STP Units 3 and 4 FSAR. The Engineering Mechanics Branch 2 (EMB2) proposes to conduct an audit on August 23 - 25, 2010 in support of this review. The NRC staff will perform the audit at the Westinghouse facility in Cranberry Township, Pennsylvania. The NRC staff will follow the guidance in NRO Office Instruction NRO-REG-108, "Regulatory Audits," in performing this audit.

PURPOSE AND APPROACH

The purpose of this audit is to review analyses performed to support the comprehensive vibration assessment program (CVAP). These are proprietary calculations developed for various reactor internal components, except the steam dryer. Any significant findings during the audit will be documented in the audit report and RAIs may be issued for scheduled action.

AUDIT ACTIVITIES AND SCHEDULE

The NRC staff will conduct the audit from August 23 - 25, 2010. The NRC staff may request an ad-hoc extension of the audit if deemed necessary. Such an extension will be requested before the meeting is adjourned on August 25, 2010, by the NRC staff responsible for the audit.

Following the audit, the NRC staff responsible for the audit will assemble and prepare a final audit report. The final report will be made available to all contributors.

The audit agenda is provided as Enclosure 2. Please contact Tom Tai at 301-415-8484 or at Tom.Tai@NRC.GOV if you have any questions related to the audit.

**Proposed Agenda
U. S. Nuclear Regulatory Commission
South Texas Project Combined License Application
Flow-Induced Vibration Audit
August 23 - 25, 2010**

Monday, August 23, 2010: AUDIT - Proprietary

8:30 a.m. - 9:15 a.m.	Entrance / Introduction	NRC/STPNOC
9:15 a.m. - 12:00 p.m.	Non-Steam Dryer Component FF Calculations Review	NRC
12:00 p.m. - 1:00 p.m.	Lunch	
1:00 p.m. - 3:00 p.m.	Non-Steam Dryer Component Modal Analysis Review	NRC
3:15 p.m. - 4:15 p.m.	NRC Caucus	NRC
4:15 p.m. - 5:00 p.m.	Comments	NRC/STPNOC

Tuesday, August 24, 2010: AUDIT - Proprietary

8:30 a.m. - 9:15 a.m.	Entrance/Introduction	NRC/STPNOC
9:15 a.m. - 12:00 p.m.	Lower Plenum CFD FF Calculations Review	NRC
12:00 p.m. - 1:00 p.m.	Lunch	
1:00 p.m. - 3:00 p.m.	Lower Plenum Modal Analysis Review	NRC
3:15 p.m. - 4:15 p.m.	NRC Caucus	NRC
4:15 p.m. - 5:00 p.m.	Comments	NRC/STPNOC

Wednesday, August 25, 2010: AUDIT - Proprietary

8:30 a.m. - 9:15 a.m.	Entrance / Introduction	NRC/STPNOC
9:15 a.m. - 12:00 p.m.	Continue with Calculations Review	NRC
12:00 p.m. - 1:00 p.m.	Lunch	
1:00 p.m. - 3:00 p.m.	Overview of Review	NRC/STPNOC
3:15 p.m. - 4:15 p.m.	NRC Caucus	NRC
4:15 p.m. - 5:00 p.m.	Exit	NRC/STPNOC

Enclosure 2

COL - STP Nuclear - South Texas Mailing List

(Revised 06/23/2010)

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