

PMSTPCOL PEmails

From: Muniz, Adrian
Sent: Tuesday, August 25, 2009 4:31 PM
To: jwcook@stpegs.com
Cc: wemookhoek@stpegs.com; STPCOL
Subject: RAI Letter # 250
Attachments: ML0923607003.pdf

James:

Attached for your information is an advanced copy of Letter # 250.

Regards,

Adrian Muñiz, DNRL
US NRC

Hearing Identifier: SouthTexas34Public_EX
Email Number: 1684

Mail Envelope Properties (3DF2506A7257014AAC5857E5E852DEAC075B16D6F6)

Subject: RAI Letter # 250
Sent Date: 8/25/2009 4:30:49 PM
Received Date: 8/25/2009 4:30:52 PM
From: Muniz, Adrian

Created By: Adrian.Muniz@nrc.gov

Recipients:

"wemookhoek@stpegs.com" <wemookhoek@stpegs.com>
Tracking Status: None
"STPCOL" <STP.COL@nrc.gov>
Tracking Status: None
"jwcook@stpegs.com" <jwcook@stpegs.com>
Tracking Status: None

Post Office: HQCLSTR02.nrc.gov

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MESSAGE	152	8/25/2009 4:30:52 PM
ML0923607003.pdf	90390	

Options

Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

August 24, 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. 250 RELATED TO
SRP SECTION 7.9 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.

S. Head

-2-

If you have any questions or comments concerning this matter, I can be reached at 301-415-4093 or by e-mail at Adrian.Muniz@nrc.gov or you may contact George Wunder at 301-415-1494 or George.Wunder@nrc.gov.

Sincerely,

/RA/

Adrian Muñoz, Project Manager
ABWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-012
52-013

eRAI Tracking No. 3139

Enclosure:
Request for Additional Information

cc: William Mookhoek
James Cook

S. Head

-2-

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Sincerely,

/RA/

Adrian Muñiz, Project Manager
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Docket Nos. 52-012
52-013

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Enclosure:
Request for Additional Information

cc: William Mookhoek
James Cook

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NRO-002

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NAME	JZhao	IJung	AMuñiz	SKirkwood	GWunder
DATE	6/26/09	6/30/09	8/24/09	7/24/09	7/24/09

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

OFFICIAL RECORD COPY

Request for Additional Information No. 3139 Revision 02

**South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co
Docket No. 52-012 and 52-013
SRP Section: 07.09 - Data Communication Systems
Application Section: 07.09**

QUESTIONS for Instrumentation, Controls and Electrical Engineering 2 (ESBWR/ABWR Projects)
(ICE2)

07.09-1

COLA FSAR Tier 2 Section 7.9S.2.2 and Figure 7.9S-1 took Departure STD DEP T1 3.4-1 on the data communication systems from the generic ABWR DCD. Departure DEP T1 3.4-1 also took departures from the generic ABWR DCD on the platforms for engineered safety features (ESF) logic & control system (ELCS), neutron monitoring system (NMS), reactor trip & isolation system (RTIS), and plant information & control system (PICS) systems. For the safety related ELCS, NMS, and RTIS systems, provide sufficient information on how the communication interface is addressed between safety related and non-safety systems, and also among different platforms (TOSDIA-FPGA, TOSMAP (C2000 and HCNT), Common-Q, Ovation, multiplexing system for RCIS, and platform for radiation monitoring system).

07.09-2

Departure STD DEP T1 3.4-1 describes the deviation of safety-related instrumentation and controls (I&C) architecture from the certified ABWR DCD. Provide sufficient information in COLA FSAR Tier 2 Section 7.9S on how the isolation is implemented for both the communication interface (CI) modules and gateways. In addition, a safety related CI module is used on Figure 7.9S-1 for NMS and RTIS systems to communicate to the corresponding gateways, but there is no CI for ELCS system. Provide sufficient information on how the communication interface function is addressed for the safety related ELCS system.

07.09-3

STP COLA took Departure STD DEP T1 3.4-1 on the data communication system from the generic ABWR DCD. This proposed data communication system will be fiber optic based. Both the fiber optic cable and its components such as terminations, field splices, and connectors are critical to provide communication, electrical and communication isolation for the safety related systems. Provide sufficient equipment qualification information in the COL application for the fiber optic cable components.

07.09-4

In Departure STD DEP T1 3.4-1, STPNOC took a deviation on data communication systems from the certified ABWR DCD. COLA FSAR Section 7.9S.3.1 states that network gateways are safety related, but Figure 7.9S-1 shows that the gateways are not safety related. Clarify this inconsistency.

Enclosure

07.09-5

STP COLA took Departure STD DEP T1 3.4-1 from the generic ABWR DCD to use new data communication systems. The new data communication system proposed in the COLA is different from the system used in the ABWR DCD. Provide sufficient information to address system design analysis and the criteria in SRP Section 7.9 and BTP 7-21.

07.09-6

Departure T1 3.4-1 in STP COLA made the final selection of platforms to use configurable logic devices for neutron monitoring system (NMS) and reactor trip and isolation system (RTIS). Since the topical report for the new platform will not be included as part of the COL application, provide sufficient information in the COL application on how the following technical items are addressed in the new platform-based NMS and RTIS system design to meet the safety and reliability requirements: timing, delay, race conditions, gate skew, power dissipation, partitioning, maintainability, testability, tool usage and qualification, environmental, and fabrication associated with the underlying technologies to be used.

07.09-7

Departure STD DEP T1 3.4-1, Safety-Related I&C Architecture, proposed a new data communication technology in the COLA. Therefore, include all specific functions related to the new communication technology in the COLA, for example, test and inspection for redundancy function at the component level (power supplies module, interface module, processor, etc.), network communication speed, and load capability.