PMSTPCOL PEmails

From: Keith, Felicia
Sent: Wednesday, August 26, 2009 5:01 PM
To: Bill Mookhoek; STPCOL; Scott Head; Chappell, Coley
Cc: Muniz, Adrian
Subject: Request for Additional Information Le tter No. 258 Related To SRP Section 14.3.5 For the South Texas Project combined License Application
Attachments: ML092380192.pdf

TO: Scott Head

FROM: Adrian Muniz for Stacy Jospeh

DATE: August 26, 2009

ADAMS Accession No. ML092380192

Felicia Keith, Secretary
ESBWR/ABWR Projects Branch 2
Division of New Reactor Licensing
Office of New Reactors
301-415-2950
Felicia.Keith@nrc.gov

Hearing Identifier: SouthTexas34Public_EX
Email Number: 1667

Mail Envelope Properties (CEEA97CC21430049B821E684512F6E5ECA564ACA39)

Subject: Request for Additional Information Le tter No. 258 Related To SRP Section 14.3.5 For the South Texas Project combined License Application
Sent Date: 8/26/2009 5:01:04 PM
Received Date: 8/26/2009 5:01:05 PM
From: Keith, Felicia

Created By: Felicia.Keith@nrc.gov

Recipients:
"Muniz, Adrian" <Adrian.Muniz@nrc.gov>
Tracking Status: None
"Bill Mookhoek" <wemookhoek@stpegs.com>
Tracking Status: None
"STPCOL" <STP.COL@nrc.gov>
Tracking Status: None
"Scott Head" <smhead@stpegs.com>
Tracking Status: None
"Chappell, Coley" <ccchappell@STPEGS.COM>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	318	8/26/2009 5:01:05 PM
ML092380192.pdf	94345	

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

August 26,2009

Mr. Scott Head, Manager
Regulatory Affairs
STP Nuclear Operating Company
P. O. Box 289
Wadsworth, TX 77483

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 258 RELATED TO SRP SECTION 14.3.5 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.

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 - A. Muniz for/

Stacy K. Joseph, Project Manager
ABWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-012
52-013

eRAI Tracking No. 3213

Enclosure:
Request for Additional Information

cc: William Mookhoek
George Cashell

If you have any questions or comments concerning this matter, I can be reached at 301-415-2849 or by e-mail at Stacy.Joseph@nrc.gov or you may contact George Wunder at 301-415-1494 or George.Wunder@nrc.gov.

Sincerely,

/RA - A. Muniz for/

Stacy K. Joseph, Project Manager
ABWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-012
52-013

eRAI Tracking No. 3213

Enclosure:
Request for Additional Information

cc: William Mookhoek
George Cashell

Distribution:
PUBLIC
NGE 1/2 R/F
GWunder, NRO
BAbeywickrama, NRO
IJung,NRO
JZhao, NRO
DTaneja, NRO
EEagle, NRO
SKirkwood, OGC
RidsNroDeIce2
RidsNroDnrlNge2

ADAMS Accession No. ML0092380192 NRO-002

OFFICE	ICE2/TR	ICE2/BC(A)	NGE2/PM	OGC	NGE2/L-PM
NAME	DTaneja	HLi	SJoseph	SKirkwood	GWunder
DATE	6/24/09	6/24/09	8/26/09 (A Muniz for)	8/18/09	8/19/09

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

OFFICIAL RECORD COPY

Request for Additional Information No. 3213 Revision 02

South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co
Docket No. 52-012 and 52-013
SRP Section: 14.03.05 - Instrumentation and Controls - Inspections, Tests, Analyses, and Acceptance Criteria
Application Section: 14.03.05 and related Tier 1 Sections

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

14.03.05-4

Based on Tier 1 departure STD DEP T1 3.4-1, the applicant, in the FSAR Tier 1 Table 2.7.5, has primarily taken departures that relate to nomenclature changes resulting from the proposed I&C architecture. As described in Tier 1 Section 2.7.5, the essential communication functions are accomplished as a part of the safety related I&C systems and equipment that make up Safety System Logic and Control (SSLC). The non-essential communication functions are performed through a plant wide, distributed network identified as the Plant Data Network (PDN) system. The proposed data communication architecture is significantly different from the certified Multiplexing System. The NRC Staff requests that STPNOC include the inspections, test, and/or analysis that address specific features of the proposed data communication functions inherent to the SSLC platforms, such as timing and load, etc. In addition, Item 3 of Table 2.7.5 states that "Data cannot be transmitted from the non-safety-related side to equipment implementing the ECFs." However, there is a data communication from the non-safety-related side to the safety-related system although the transmission is manually controlled. The NRC Staff requests that STPNOC provide sufficient clarification for this inconsistency and include the test and inspection of this manually controlled data communication as an ITAAC item in Table 2.7.5. Refer to RAI 3139 related to Chapter 7.9S for additional information.

14.03.05-5

Based on STD DEP T1 3.4-1, the applicant revised the I&C architecture related nomenclature used in Table 3.4, ITAAC Item 3 Design Commitment. However, the types of Class 1E power sources was not changed, which is now inconsistent with the proposed power sources for RTIS and ELCS described in Tier 1 subsection A of Section 3.4. Also, the revised Design Commitment does not include the equipment implementing the ESF SLF in Division IV, and ESF RDLC in all four divisions. The NRC staff requests STPNOC to resolve this inconsistency between ITAAC Design Commitment and Tier 1 Design Description, and identify the ITAAC that addresses the equipment implementing the ESF SLF in Division IV, and ESF RDLC in all four divisions.

14.03.05-6

Based on STD DEP T1 3.4-1, the applicant revised the ESF output channel bypass design commitment and related ITA and acceptance criteria in Table 3.4, ITAAC Item 4. The staff is unable to evaluate this change due to the vagueness of the departed ESF design description in Tier 1 Section 3.4 (RAI 3213, Question 12836). The NRC staff requests STPNOC to evaluate the impact on this ITAAC resulting from potential changes to the ESF design description.

14.03.05-7
Based on STD DEP T1 3.4-1, the applicant changed EMS to ECF and NEMS to NECF in Table 3.4, ITAAC Item 12. This ITAAC is for EMC compliance testing of the electrical and electronic components used in the SSLC and other microprocessor-based, software controlled equipment. Note that ECF and NECF are functions and not the electrical or electronic components they replaced, namely essential and non-essential multiplexing systems. The NRC staff requests STPNOC to evaluate the applicability of ITAAC Item 12 to ECF and NECF.

14.03.05-8

In enclosure 4f of the STPNOC letter U7-C-STP-NRC-090009, dated February 9, 2009, the applicant evaluated the Tier 1 ITAAC for conformance to the SRP 14.3. In this evaluation, STP concluded that the SRP 14.3 does not address specific DAC related ITAAC, therefore requirements of the SRP 14.3 are not applicable to the departed DAC/ITAAC in Tier 1, Chapter 3. Based on following reasons, the NRC staff requests STPNOC to reevaluate departed Tier 1 ITAAC for conformance to the SRP 14.3 guidance:

1. On SRP pages 14.3-21 and 14.3-22, definition of DAC and its use as additional certified design material is explained,

2. On page 14.3-22, the SRP states, "The design information and appropriate design methodologies, codes, and standards provided in the DCD Tier 2, together with the design descriptions and DAC, should be sufficiently detailed to provide an adequate basis for the staff to make a final safety determination regarding the design, subject only to satisfactory design implementation and verification of the DAC by the COL applicant or licensee. The DAC are a set of prescribed limits, parameters, procedures, and attributes upon which the NRC relies, in a limited number of technical areas, in making a final safety determination in support of the design certification. The acceptance criteria for the DAC should be objective; that is, they should be inspectable, testable, or subject to analysis using pre-approved methods, and should be verified as a part of the ITAAC performed to demonstrate that the as-built facility conforms to the certified design. Thus, the acceptance criteria for DAC are specified together with the related ITAAC in Tier 1, and both are part of the design certification. The DAC and the ITAAC, when met, ensure that the completed design and as-constructed plant conforms to the design certification. The material in the DCD Tier 2 for each of the DAC areas should include, as appropriate, sample calculations or other supporting information to illustrate methods that are acceptable to the staff for meeting the Tier 1 DAC commitments."

   and

3. On page 14.3.5-5, the SRP states, "The applicant may provide design acceptance criteria (DAC) in lieu of detailed system design information. In this case, the DAC should be sufficiently detailed to provide an adequate basis for the Staff to make a final safety determination regarding the design, subject only to satisfactory design implementation and verification of the DAC by the COL applicant or licensee. Implementation of the DAC should be verified as part of the ITAAC performed to demonstrate that the as-built facility conforms to the certified design."