PMSTPCOL PEmails

From: Price, John E [jeprice@STPEGS.COM]
Sent: Tuesday, March 30, 2010 4:21 PM
To: Muniz, Adrian; Dyer, Linda; Wunder, George; Tonacci, Mark; Eudy, Michael; Kallan, Paul; Plisco, Loren; Anand, Raj; Foster, Rocky; Joseph, Stacy; Govan, Tekia; Tai, Tom
Subject: Transmittal of Letter U7-C-STP-NRC-100070
Attachments: U7-C-STP-NRC-100070.pdf

Please find attached a courtesy copy of letter number U7-C-STP-NRC-100070, which contains the response to an NRC staff question included in Request for Additional Information (RAI) letter number 323 related to Combined License Application (COLA) Part 2, Tier 2, Section 14.3.2.

The official version of this correspondence will be placed in the mail. Please call John E. Price at 361-972-4748 if you have any questions concerning this letter.

Hearing Identifier: SouthTexas34Public_EX
Email Number: 2052

Mail Envelope Properties (13E4D28832670B41A5E42D8367580B80026E562DDA)

Subject: Transmittal of Letter U7-C-STP-NRC-100070
Sent Date: 3/30/2010 4:21:02 PM
Received Date: 3/30/2010 4:21:07 PM
From: Price, John E

Created By: jeprice@STPEGS.COM

Recipients:
"Muniz, Adrian" <Adrian.Muniz@nrc.gov>
Tracking Status: None
"Dyer, Linda" <lcdyer@STPEGS.COM>
Tracking Status: None
"Wunder, George" <George.Wunder@nrc.gov>
Tracking Status: None
"Tonacci, Mark" <Mark.Tonacci@nrc.gov>
Tracking Status: None
"Eudy, Michael" <Michael.Eudy@nrc.gov>
Tracking Status: None
"Kallan, Paul" <Paul.Kallan@nrc.gov>
Tracking Status: None
"Plisco, Loren" <Loren.Plisco@nrc.gov>
Tracking Status: None
"Anand, Raj" <Raj.Anand@nrc.gov>
Tracking Status: None
"Foster, Rocky" <Rocky.Foster@nrc.gov>
Tracking Status: None
"Joseph, Stacy" <Stacy.Joseph@nrc.gov>
Tracking Status: None
"Govan, Tekia" <Tekia.Govan@nrc.gov>
Tracking Status: None
"Tai, Tom" <Tom.Tai@nrc.gov>
Tracking Status: None

Post Office: exgmb2.CORP.STPEGS.NET

Files	**Size**	**Date & Time**
MESSAGE	458	3/30/2010 4:21:07 PM
U7-C-STP-NRC-100070.pdf	184259	

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

Nuclear Operating Company
South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

March 30, 2010
U7-C-STP-NRC-100070

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

South Texas Project
Units 3 and 4
Docket Nos. 52-012 and 52-013
Response to Request for Additional Information

Attached are the responses to NRC staff questions included in Request for Additional Information (RAI) letter number 323 related to Combined License Application (COLA) Part 2, Tier 2, Section 14.3.2. This completes the response to the letter. Attachments 1 and 2 provide the responses to the RAI questions listed below:

RAI 14.03.02-9
RAI 14.03.02-10

Where there are COLA markups, they will be made at the first routine COLA update following NRC acceptance of the RAI response.

There are no commitments in this letter.

If you have any questions regarding this response, please contact me at (361) 972-7136, or Bill Mookhoek at (361) 972-7274.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 3/30/10

Scott Head
Manager, Regulatory Affairs
South Texas Project Units 3 & 4

jep

Attachments:

1. RAI 14.03.02-9
2. RAI 14.03.02-10

cc: w/o attachment except*
(paper copy)

Director, Office of New Reactors
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064

Kathy C. Perkins, RN, MBA
Assistant Commissioner
Division for Regulatory Services
P. O. Box 149347
Austin, Texas 78714-9347

Alice Hamilton Rogers, P.E.
Inspections Unit Manager
Texas Department of Health Services
P. O. Box 149347
Austin, Texas 78714-9347

C. M. Canady
City of Austin
Electric Utility Department
721 Barton Springs Road
Austin, TX 78704

*Steven P. Frantz, Esquire
A. H. Gutterman, Esquire
Morgan, Lewis & Bockius LLP
1111 Pennsylvania Ave. NW
Washington D.C. 20004

*Adrian Muniz
*Tom Tai
Two White Flint North
11545 Rockville Pike
Rockville, MD 20852

(electronic copy)

*George F. Wunder
*Adrian Muniz
*Tom Tai
Loren R. Plisco
U. S. Nuclear Regulatory Commission

Steve Winn
Joseph Kiwak
Eli Smith
Nuclear Innovation North America

Jon C. Wood, Esquire
Cox Smith Matthews

J. J. Nesrsta
Kevin Pollo
L. D. Blaylock
CPS Energy

RAI 14.03.02-9

QUESTION:

The diesel storage tanks are seismic category I structures which do not interact with any certified systems but warrant ITAAC per the acceptance criteria in SRP Section 14.3.2. The staff notes that ABWR DCD, Revision 4, Subsection 2.16.2 contains the general ITAAC for the Diesel Generator Fuel Oil Storage Vaults. However, COLA Part 9, Revision 2, Section 3.0 should also include an ITAAC for the as-built reconciliation and flood safety of the tanks. Accordingly, the staff requests that the applicant provide an additional ITAAC for the exterior diesel storage tanks and vaults regarding the reconciliation of the as-built system with their structural design basis and the conditions necessary to ensure flood safety, as applicable. The integrity of the diesel tanks and vaults is needed to ensure that the emergency diesel system will perform in accordance with the specified safety functions, features, and characteristics.

RESPONSE:

The ITAAC for the diesel storage tank is included in the DCD Tier 1, Section 14.3.2. The ITAAC for the oil transfer tunnel is included in DCD Tier 1, Section 2.15.10. The ITAAC for the as-built reconciliation of the site-specific Diesel Generator Fuel Oil Storage Vaults is included in the new proposed Table 3.0-15 of COLA Part 9, Section 3.0.

The COLA will be revised as shown on the attached page.

3.0 Site Specific ITAAC

The STP 3 & 4 site-specific systems that require ITAAC because they have a safety-related, safety-significant, or risk significant function are listed below:

- Breathing Air (BA) System
- Diesel Generator Fuel Oil Storage Vaults

Table 3.0-15 Diesel Generator Fuel Oil Storage Vaults

Design Requirement	Inspections, Tests, Analyses	Acceptance Criteria
1. (a) The Diesel Generator Fuel Oil Storage Vaults are classified as Seismic Category I. These vaults are designed and constructed to accommodate the dynamic and static loading conditions associated with the various loads and load combinations which form the structural design basis. The loads are those associated with: i. Natural phenomena—wind, floods, tornadoes (including tornado missiles), earthquakes, rain and snow. ii. Internal events—floods, pipe breaks and missiles. iii. Normal plant operation—live loads, dead loads and temperature effects. 1. (b) The vaults will have no openings below the flood level to protect them from external flooding.	1. (a) A structural analysis will be performed to reconcile as-built data with the structural design basis as defined in the Design Requirement. 1. (b) An inspection of the vaults will be performed.	1. (a) A structural analysis report exists which concludes that the as-built Diesel Generator Fuel Oil Storage Vaults are able to withstand the design basis loads as defined in the Design Requirement. 1. (b) The vaults have no openings that would permit external flooding to penetrate into the vaults.

RAI 14.03.02-10

QUESTION:

SRP Section 14.3.2, acceptance criteria II(3) requires applicants to provide ITAAC to reconcile the as built plant with the structural design basis, and acceptance criteria II(11) requires an as-built structural analysis be performed as a means to accomplish reconciliation. RAI 14.3.2-8 was generated to request that the applicant discuss how STP 3&4 intends to implement this ITAAC requirement and provide the corresponding ITAAC table addressing the as-built configuration reconciliation ITAAC for each site specific SSCs, as applicable. In its response, the applicant stated that the ITAAC is provided for the site-specific SSC in COLA Part 9, Section 3.0.

The staff confirmed that the ITAAC tables in Section 3.0 of STP 3&4 COLA, Part 9 contain items requiring as-built reconciliation when applicable to specific SSC. The intent of RAI 14.3.2-8 **(**RAI I.D. 3279, Question 13020), however, is to request that the applicant identify the procedure(s) that will be followed to accomplish the as-built structural reconciliation, e.g., under "Design Requirements," to provide a new ITAAC item that requires the licensee to perform an evaluation to reconcile as-built design information with the structural design basis. Additionally, the applicant is requested to describe the design data and parameters that are going to be reconciled under "Inspections, Tests, Analysis," and specify the acceptable tolerances and deviations under "Acceptance Criteria."

RESPONSE:

As required by Standard Review Plan (SRP) Section 14.3.2, Acceptance Criteria II(3) and II(11), ITAAC Tables 3.0-1 and 3.0-5 in COLA Part 9, Section 3.0 provide ITAACs stating that a structural analysis report will be prepared to document that the as-built site-specific Seismic Category I structures (Ultimate Heat Sink (UHS) and Reactor Service Water (RSW) Piping Tunnels) are able to withstand the structural design basis loads. A similar ITAAC is proposed for the Diesel Generator Fuel Oil Storage Vault in response to RAI 14.03.02-9, being submitted concurrently with this response.

SRP Section 14.3.2, Acceptance Criteria II(3) and II(11), requires preparation of a structural analysis report to reconcile the as-built condition with the structural design basis in ITAACs. This has been provided, as stated above. A description of the structural analysis report for the site-specific Seismic Category I structures, similar to those provided for the Reactor and Control Buildings in the DCD Section 3H.5.3, is provided in new COLA Part 2, Tier 2, Section 3H.5.6, as shown on the following page. This description includes discussion of the compliance of the as-built structures, including material properties and dimensions, with the design requirements.

3H.5.6 Structural Analysis Report For The Ultimate Heat Sink/ Reactor Service Water Pump House Structure, Reactor Service Water Piping Tunnel and Diesel Generator Fuel Oil Storage Vault

A structural analysis report will be prepared. It will document the following activities associated to the construction materials and as-built dimensions of the structures:

(1) Review of construction records for material properties used in construction (i.e., in-process testing of concrete properties and procurement specifications for structural steel and reinforcing bars).

(2) Inspection of as-built structure dimensions.

For material properties and dimensions, assess compliance of the as-built structure with design requirements in the Subsection 3H.6 and in the detail design documents.

Construction deviations and design changes will be assessed to determine appropriate disposition.

This disposition will be accepted "as-is," provided the following acceptance criteria are met:

- The structural design meets the acceptance criteria and load combinations of Appendix 3H, Section 3H.6.
- The dynamic responses (i.e., spectra, shear forces, axial forces and moments) of the as-built structure are bounded by the spectra in Appendix 3H, Section 3H.6.

Depending upon the extent of the deviation or design changes, compliance with the acceptance criteria can be determined by either:

a) Analyses or evaluations of construction deviations and design changes, or

b) The design basis analyses will be repeated using the as-built condition.