



South Texas Project Electric Generating Station 4000 Avenue F – Suite A Bay City, Texas 77414

March 16, 2010
U7-C-STP-NRC-100063

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

- Reference:
1. Letter, Scott Head to Document Control Desk, "Response to Request for Additional Information" dated August 5, 2009, U7-C-STP-NRC-090093 (ML092220163).
 2. Letter, Mark McBurnett to Document Control Desk, "Response to Request for Additional Information" dated December 3, 2009, U7-C-STP-NRC-090216 (ML093421266).

Attachment 1 to this letter replaces the responses to RAI 19.01-13 that were provided in the References identified above. Attachment 2 supplements the responses to RAI 19.01-23 that were provided in the References identified above.

19.01-13 Revised Response
19.01-23, Supplemental Response 2

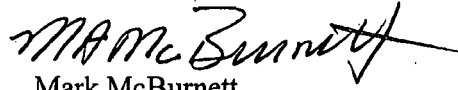
There are no commitments in this letter.

If you have any questions regarding these RAI responses, please contact Scott Head at (361) 972-7136, or Bill Mookhoek at (361) 972-7274.

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NRD

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

Executed on 3/16/2010



Mark McBurnett

Vice-President, Oversight and Regulatory Affairs
South Texas Project Units 3 & 4

dws

Attachments:

1. Question 19.01-13, Revised Response
2. Question 19.01-23, Supplemental Response 2

cc: w/o attachment except*

(paper copy)

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QUESTION 19.01-13

In Section 19.2, Table 19.2-2 of the STP FSAR, Rev. 2, "PRA Assessment of STP COLA Departures from ABWR DCD", Departure STD DEP T1 2.4-2 (Feedwater Line Break Mitigation), it is stated that this departure is not explicitly modeled in the ABWR DCD PRA. In the ABWR DCD original design, the feedwater was assumed to be unavailable when hotwell inventory was depleted. No automatic isolation of feedwater flow was assumed. In ABWR Standard R-COL design modification, the condensate pumps are tripped in the event of high containment pressure from Feedwater line break.

Please explain whether this design change was included in the STP plant-specific PRA model. If so, explain its impact on the PRA results.

REVISED RESPONSE

This Request for Additional Information response replaces the responses previously provided for RAI 19.01-13 in U7-C-STP-NRC-090093, dated August 5, 2009 (ML092220163), and RAI 19.01-13, Supplement, in U7-C-STP-NRC-090216, dated December 3, 2009 (ML093421266) in their entirety.

The feature described in STD DEP T1 2.4-2, was added to provide further assurance of acceptable results following a feedwater line break inside the containment. The response to RAI 06.02.01.01.C-1 (Letter U7-C-STP-NRC-090074, dated July 15, 2009, ML092010088) indicates that the containment response portion of the STP Units 3 and 4 accident analysis has been re-performed using the GOTHIC computer program in place of the GESSAR computer program. The data confirmed an acceptable containment response to a feedwater line break inside the containment without taking credit for the automated condensate pump trip. Despite these conclusions, STP Units 3&4 plans to maintain the feedwater line break mitigation function, including the condensate pump trip, as a safety-related feature of the STP 3&4 design, consistent with its original intent "to provide added assurance of acceptable results" following a feedwater line break inside the containment.

The condensate system, as modeled in the ABWR DCD PRA, provides a source of low pressure injection to the reactor and is modeled in Top Event Q in the PRA event trees. This top event is unaffected by the changes described in departure STD DEP T1 2.4-2.

Based on the above information, no change to the STP PRA described in Chapter 19 was made and there is no impact on the results presented in Chapter 19.

No COLA revision is required as a result of this RAI response.

QUESTION 19.01-23:

A list of new components and their locations in the Turbine building for STP units 3&4 is provided in Table 9A.6-4 in STP FSAR Section 9A.6, Fire Hazard Analysis Database. However, the impact of these additional components on the FIVE (Fire-induced Vulnerability Evaluation Methodology) results associated with Turbine building was not discussed in Section 19M.

Please explain whether these additional components are included in the fire risk assessment and, if so, please discuss their impact on the FIVE (Fire-induced Vulnerability Evaluation Methodology) results.

Please explain whether these additional components are included in the fire risk assessment and, if so, please discuss their impact on the fire PRA results.

SUPPLEMENTAL RESPONSE:

This Request for Additional Information (RAI) response supplements information previously provided for RAI 19.01-23 in letter U7-C-STP-NRC-090093 dated August 5, 2009 (ML092220163) and RAI 19.01-23 Supplemental Response in letter U7-C-STP-NRC-090216, dated December 3, 2009 (ML093421266).

Design Control Document (DCD) Table 9A.6-4 was reviewed against STP 3&4 COLA Table 9A.6-4. With the exception of equipment associated with the Combustion Turbine Generator (CTG), the two tables are consistent in terms of the types of equipment in the Turbine Building, and the general location of this equipment. DCD Table 9A.6-4 does not identify any equipment related to the CTG, while COLA Table 9A.6-4 identifies CTG equipment in the Turbine Building. The Fire Hazards Analysis described in Standard Safety Analysis Report (SSAR) Appendix 19M, notes, in Table 19M-7, that the turbine building fire area excludes the Auxiliary Boiler and the Combustion Turbine Generator, which are in individual fire areas. The CTG and Auxiliary Boiler fire areas were screened from analysis using the FIVE methodology because fires in these areas do not directly lead to a plant trip and do not affect offsite power distribution to the plant.

As stated previously, there is no effect on the fire screening assessment described in Appendix 19M of the DCD for the Turbine Building departures described in the STP 3&4 FSAR.

No COLA revision is required as a result of this supplemental RAI response.