



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

July 8, 2010  
U7-C-STP-NRC-100166

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  
Supplemental Response to Request for Additional Information

Reference: Letter, Scott Head to Document Control Desk, "Response to Requests for Additional Information" dated February 25, 2010: U7-C-STP-NRC-100051 (ML100790282).

This letter provides a supplemental response to Request for Additional Information (RAI) Question 12.03-12.04-15, related to COLA Part 2, Tier 2, Sections 12.3 and 12.4, previously responded to in the referenced letter.

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 7/8/10

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

SCS

Attachment:  
Question 12.03-12.04-15 Supplemental Response

DD91  
NRD

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

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**RAI 12.03-12.04-15****QUESTION:**

In FSAR Section 12.3.7.3, the following information is provided to address COL License Information Item 12.8:

“The information demonstrating that the plant meets the criticality accident monitoring requirements of 10CFR70.24 will be provided as an amendment to the FSAR in accordance with 10 CFR 50.71(e), or an exemption from this 10 CFR 70.24 requirement will be requested, at least six months prior to fuel load (COM 12.3-1).”

A similar statement is included in COM 12.3-1 contained in the Commitments (Attachment 3) of the STP Combined License Application (letter ABR-AE-07000004).

It is the staff position that before a Part 52 COL license can be issued, the applicant must either provide the information demonstrating that the plant meets the criticality accident monitoring requirements of 10CFR70.24, or have an approved exemption from the 10 CFR 70.24 requirements.

Accordingly, the staff requests that the applicant provide the following additional information concerning Criticality Accident Monitoring for STP 3&4:

1. Provide the information demonstrating that each unit meets the criticality accident monitoring requirements of 10CFR70.24; or, have an approved exemption from the requirements of 10 CFR 70.24.
2. Provide a markup of the proposed FSAR revision in the response accordingly.

**SUPPLEMENTAL RESPONSE:**

STPNOC provided a response to RAI 12.03-12.04-15 in U7-C-STP-NRC-100051, dated February 25, 2010. In further communications with the NRC, the following additional information was requested.

- Identify the radiation monitors credited for meeting the 10CFR50.68, Paragraph (b) (6) requirement in the proposed COL License Information Item 12.8.
- Review Technical Specifications to determine whether there are any requirements for the monitors to be operable when fuel is present.
- Identify any compensatory measures specified/required if they are inoperable.

This supplemental response provides the additional information.

Subsection 12.3.4.3 of the DCD, which is incorporated by reference in the FSAR, discusses the design parameters and requirements for two high-range detector channels for monitoring radiation from fuel handling accidents that are near the fuel pool and the fuel handling area. These detectors are listed in Table 12.3-3 and are shown on the Reactor Building layout drawing

Figure 12.3-62 as area radiation monitors 3 and 4. There are no STP 3&4 Technical Specification operability requirements for these monitors.

FSAR Subsection 13.5.3.4 lists STP 3&4 maintenance and other operating procedures, including plant radiation protection, instrument calibration and test, and area radiation monitoring system operation. The STP 3&4 Operational Radiation Protection Program is described in Section 12.5S. As discussed in Subsection 12.3.4, the monitors design provisions include two adjustable trip alarm circuits. One circuit is for high radiation alarm. The other circuit is for downscale indication on loss of sensor input. There is a self-test feature that monitors for failures and actuation of an alarm on loss of power or when a failure is detected. There are audible and visual alarms. The channels are powered from non-Class 1E vital 120 VAC, which is continually available during loss of offsite power. The above STP 3&4 programs, procedures, and monitor design provisions assure that the monitors are operable as needed. In the unlikely event of complete loss of a monitor, compensatory measures would include use of portable monitors and/or stoppage of fuel handling operations until adequate monitoring is restored.

There are no FSAR revisions required as a result of this RAI supplement.