



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

July 8, 2010
U7-C-STP-NRC-100159

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
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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 June 15, 2009, U7-C-STP-NRC-090056 (ML091690066)

Attached is a supplemental response to an NRC staff question included in Request for Additional Information (RAI) letter number 104 related to Combined License Application (COLA) Part 2, Tier 2 Chapter 7, Instrumentation and Controls.

The attachment supplements the response provided in the referenced letter to the RAI question listed below:

RAI 07.01-4

The COLA changes provided in this response will be incorporated in the next routine revision of the COLA following NRC acceptance of the RAI response.

The supplemental response to RAI 06.02.02-27 is being delayed to allow confirmation of the bench top testing results and will be submitted no later than July 21, 2010.

There are no commitments in this letter.

DO91
NRD

STI 32702096

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

jwc

Attachment:

Supplemental Response to RAI 07.01-4

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

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RAI 07.01-4**QUESTION:**

After initial review, the following editorial issues have been found. The NRC Staff requests that STPNOC conduct a comprehensive review of COL application documents to identify and correct any additional errors of these types. Either make the following conforming changes or describe why they are not necessary.

- Figure 2.2.6a used in 2nd paragraph on Tier 1 Page 2.2-8 of FSAR should be Figure 2.2.7b.
- On Tier 1 Page 2.2.-4, STD DEP 3.4-1 should be STD DEP T1 3.4-1.
- On Tier 2 Page 7.3-2, item (w) should be (a).
- On Tier 2 Page 7.9S-2, PCIS should be PICS
- Tier 2 Section 7.9S.2.1.2 is used on Page 7.9S-11, but there is no such section in the FSAR, Rev. 02.
- On FSAR IBD Figure 7.2-9 (Sheet 3), the main steam line (MSL) radiation trip signal is still included. It should be deleted according to STD DEP T1 2.3-1.
- FSAR Figure 7.9S-1 needs to be changed to show some missing components for the complete I&C system architecture, such as ATIP, core and zone switches, etc.
- FSAR Tier 1 Figure 3.4b, TLU still used on the diagram should be changed to TLF, and ELF used in note 4 should be SLF. Provide clarification on what type of equipment will be used for the non-microprocessor based final vote component for the ELCS system.
- On IBD Figure 7.3-2, old terminology such as DTU, SLU, etc. is still used on the diagrams. Use the revised terminology.
- MUX is still used on IED Figure 7.7.-2 (sheet 1).
- On IBD Figure 7.3-1, there are a few notes, reference documents, and Table 2 referred to on the diagrams, but those notes, references, and table are not provided.
- IBD Figures 7.2-9 (sheets 1 -3) and Figure 7.1-2, editorial changes need to be made by using the revised terminology for the COL application, such as DTU, DTM, and TLU which have been changed to DTF and TLF, respectively.

SUPPLEMENTAL RESPONSE:

This response supplements the original response to RAI 07.01-4 provided in STPNOC letter U7-C-STP-NRC-090056 (ML091690066), dated June 15, 2009. In the original response, each issue identified was addressed. STPNOC further committed to review the remaining I&C related departures to identify editorial issues similar to those in this RAI. STPNOC has completed this review and all resulting changes will be reflected in the next revision of the COLA.

As a result of the review, one departure, STD DEP 7.2-2 – Description of SCRAM Actuating Relays, is being withdrawn. COLA, Rev. 3, Part 2, Tier 2 Subsection 7.2.1.1.4.1(3) describes the backup SCRAM relays which actuate the backup SCRAM air header dump valves. The ABWR DCD design was not changed by this departure. Under a plant trip condition, the backup SCRAM relay coils de-energize and the relay contact closes permitting the 125 VDC bus to energize the backup SCRAM air header dump valve solenoid. This opens the valve and dumps the pressure in the header causing the control rods to be inserted. The text clarification made in Subsection 7.2.1.1.4.1(3) by STD DEP 7.2-2 will be reverted to the ABWR DCD text.

The following changes to Part 2, Tier 2, Section 7.2 will be made in the next revision of the COLA:

7.2 Reactor Protection (Trip) System (RPS)—Instrumentation and Controls

The information in this section of the reference ABWR DCD, including all subsections, tables and figures, is incorporated by reference with the following departures and supplements.

STD DEP T1 2.3-1 (Table 7.2-1, 7.2-2, Figures 7.2-2, 7.2-6, 7.2-9, 7.2-10)

STD DEP T1 3.4-1 (Figures 7.2-2, 7.2-9, 7.2-10)

STD DEP 1.8-1

STD DEP 7.1-1

~~STD DEP 7.2-2~~

STD DEP 7.2-4

STD DEP 7.2-6 (Table 7.2-1)

STD DEP 8.3-1

STD DEP Admin

7.2.1.1.4.1 General RPS Equipment

STD DEP T1 3.4-1

~~STD DEP 7.2-2~~

STD DEP Admin

~~(3) — Divisions of Trip Actuators~~

~~Normally closed open-relay contacts are arranged in the scram logic circuitry between the air header dump valve solenoids and air header dump valve solenoid 125 VDC power source such that, when in a tripped state (coil de-energized energized), the relays will cause energization of the air header dump valve solenoids (air header dump initiation). All relays within a division interconnect with relays in all other divisions into two separate two-out-of-four air header dump logic arrangements (Figure 7.2-8).~~

The following change to Part 2, Tier 2, Table 19.2-2 will be made in the next revision of the COLA:

Table 19.2-2 PRA Assessments of STP COLA Departures from ABWR DCD (Continued)

Departure Number	Certified Design Basis(DCD)	US ABWR/STP Design Bases	Potential Impact on PRA [STP COLA Section]
STD DEP 7.2-2 Description of Scram Actuating Relays	Relay logic contact status is specified as normally closed for air header dump valve solenoids.	Air header dump valve solenoid relay logic contact status is specified as "open" when the coil is "energized."	Correction to description: No effect on PRA, not modeled.

The following change to Part 7, Section 3.0 will be made in the next revision of the COLA:

~~STD DEP 7.2-2, Description of Scram Actuating Relays~~**~~Description~~**

~~DCD Subsection 7.2.1.1.4.1 (3) describes normally closed relay contacts in the scram logic circuitry between the air header dump valve solenoids (back-up scram solenoids) and the power source (125 VDC) for the air header dump valve solenoids.~~

The STP 3 & 4 FSAR subsection has revised the wording of the relay logic contact status from "normally closed" to "normally open" and clarified that the tripped state is when the coil is "energized." This departure ensures a clear description is provided for the Reactor Protection System.

Evaluation Summary

This departure has been evaluated pursuant to and determined to comply with the requirements in 10 CFR 52, Appendix A, Section VIII.B.5.

This departure does not change the Technical Specifications, any underlying design or other operational requirements. Furthermore, it does not change any plant physical features, SSCs important to safety or fission product barriers. Any previously evaluated accident is not affected, and the possibility for an accident of a different type is not created. Also, it does not affect any method used for evaluation in establishing the design bases or in the safety analyses. This departure does not affect any feature for mitigation of an ex-vessel severe accident. For the same reason, and because there is no effect on any event, operation or SSC function, the change does not create a different ex-vessel accident scenario.

Therefore this change has no adverse impact and does not require prior NRC approval.