Nuclear Operating Company

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

January 20, 2010
U7-C-STP-NRC-100021

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
Revised Response to Request for Additional Information

Reference: Letter from Scott Head to the Document Control Desk, "Response to Request for Additional Information," dated May 21, 2009 (ML091460117)

Attached is a revised response to the NRC staff question included in Request for Additional Information (RAI) letter number 101 related to Combined License Application (COLA) Part 2, Tier 2, Section 16. The original response was submitted by the letter referenced above.

The COLA change documented in the attachment will be incorporated into the next routine revision of the COLA following NRC acceptance of the revised response.

There are no commitments in this letter.

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

D091
NRO

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

Executed on 1/20/2010

M A McBurnett

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

gsc

Attachment:

Question 16-1, Revised Item 9

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

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RAI 16-1, Revised Item 9

QUESTION:

RAI 16-1 required that the applicant complete the bracketed information in the Technical Specifications and the Technical Specification Bases to satisfy COL License Information Item 16-1. Table 16-1 was provided in response to this RAI, detailing the information required to complete the brackets. Table 16-1, Item 9, Bases 3.3.1.1 Function 2(a) identifies a bracketed item calling for the minimum number of local power range monitor (LPRM) inputs required for each average power range monitor (APRM) division to ensure adequate core coverage. The Bases state "In addition, to provide adequate coverage of the entire core, at least [20] LPRM inputs are required for each APRM division, with at least two LPRM inputs from each of the four axial levels at which the LPRMs are located." The applicant replaced the number "20" in brackets with the number "32," and removed the brackets. The number "32" was characterized as satisfying Option 1 (i.e., a plant specific value) of Interim Staff Guidance ISG-08, "Necessary Content of Plant-Specific Technical Specifications When a Combined License Is Issued."

During a telephone conference with the NRC Staff on January 7, 2010 the NRC noted that, although the chosen number of "32" appeared reasonable, the analyses to support this value were not completed; and therefore, it did not satisfy ISG-08 as an Option 1 value.

RESPONSE:

In order to satisfy ISG-08, 51 LPRMs will be specified as a bounding value (ISG-08, Option 2). ISG-08 identifies an Option 2 value as one that bounds the plant-specific value, but by which the plant may be safely operated (i.e., a useable bounding value). The number 51 satisfies these criteria as follows:

There are 52 LPRMs per division. The analyses required to determine the minimum number of LPRMs per APRM division are specified in COLA Part 2, Tier 2, Section 7.2.2.1(6). It is believed that the plant specific value will be analyzed to be 32. This number is approximately 60% of the available LPRMs, which is consistent with the percentage of available LPRMs required to be operable at several of the operating BWR-5s and BWR-6s in this country. The Japanese ABWRs, which have the same number and configuration of LPRMs as STP 3 & 4, also specify a minimum of 32 LPRMs per division. Therefore, it is expected that 51 LPRMs will satisfy the bounding requirement of Option 2.

Fifty-one (51) LPRMs also satisfy the requirement that the bounding value be useable. The plant can be started with 52 operable LPRMs per division, lose one, and still operate safely. Thus, both criteria of ISG-08, Option 2 are met. It is recognized that the minimum number of LPRMs per division may be changed in the future, using the appropriate mechanism, once the required analyses have been completed.

COLA, Part 2, Tier 2, Section 16 B.3.3.1.1 and RAI 16-1, Table 16-1 will be revised as shown below in the next COLA revision.

COLA, Part 2, Tier 2, Section 16 B.3.3.1.1

BASES

APPLICABLE SAFETY ANALYSIS, LCO, and APPLICABILITY (continued)	*2.a. Average Power Range Monitor Neutron Flux - High, Setdown* *The APRM System is made up of four independent divisions. Each APRM division transmits a trip signal to all four RPS TLFs using suitable isolators. The system is designed to allow one division to be bypassed. Four divisions of APRM Neutron Flux – High/Setdown are required to be OPERABLE to ensure that no single failure will preclude a scram from this Function on a valid signal. In addition, to provide adequate coverage of the entire core, at least ~~[20~~ 32 51 ~~]~~ LPRM inputs are required for each APRM division, with at least two LPRM inputs from each of the four axial levels at which the LPRMs are located.*

RAI 16-1, Table 16-1

STP 3 & 4 Reference Combined License Applications (RCOLAs), Site-Specific Information Identified in ABWR Generic Technical Specifications (GTS) to be Provided by COL Applicant In the Plant-Specific Technical Specifications (PTS) - COL Action Item 16-1

Item No.	PTS Subsection	Source	Site-Specific Information	PTS Requirements	Option	Resolution
9	B 3.3.1.1	PTS	Minimum number of local power range monitor (LPRM) inputs for each average power range monitor (APRM) division.	Bases for PTS 3.3.1.1, in Table 3.3.1.1-1, Function 2.a, APRM Neutron flux – High, Setdown, requires at least [20] LPRM inputs for each APRM division.	~~1~~ 2	"20" will replaced by ~~"32"~~ "51" and the brackets will be removed.