



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

April 6, 2009
U7-C-STP-NRC-090029

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
Amended Responses to Requests for Additional Information

References: Letter, Greg Gibson to Document Control Desk, "Response to Requests for Additional Information," dated August 27, 2008 (ABR-AE-08000065)

Attached are amended responses to NRC staff questions included in Request for Additional Information (RAI) letter number 56 related to Combined License Application (COLA) Part 2, Tier 2, Section 13.3 and COLA Part 5 Emergency Plan. The amended responses are based on a teleconference held on December 8, 2008 with members of the NRC staff. Attachments 1 and 2 include amended responses to the following RAI questions:

13.03-38

13.03-40

As a result of the above amended responses RAI 13.03-39 was also identified as requiring amending and is included as Attachment 3 to this letter.

When a change to the COLA is indicated, the change will be incorporated into the next routine revision of the COLA following NRC acceptance of the RAI response.

There are no commitments in this letter.

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

DO91
NRW

STI 32452825

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

Executed on 4/6/09



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

fjp

Attachments:

1. Question 13.03-38, Revision 1
2. Question 13.03-40, Revision 1
3. Question 13.03-39, Revision 1

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

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RAI 13.03-38

QUESTION:

ONSITE EMERGENCY PLAN: SITE-21: Subject: Apparent inconsistencies in staff augmentation statements [Basis: 10 CFR 50.47(b)(2); NUREG-0654, FEMA-REP-1, Rev. 1, November 1980: Criterion B.5, and Table B-1] [NOTE: In response to the questions on minimum staffing and augmentation, information contained in the following publicly available document, particularly Attachment 2 ("Smart Application Template for Requesting Emergency Plan Changes Related to On-Shift Staffing Levels and Augmentation Times"), may be utilized: "SUMMARY OF MEETING WITH THE NUCLEAR ENERGY INSTITUTE REGARDING THE DEVELOPMENT OF A SMART APPLICATION TEMPLATE RELATED TO ON-SHIFT STAFFING LEVELS AND AUGMENTATION TIMES CHANGES" (NRC ADAMS Accession Number ML042530011; dated September 9, 2004)] 1) Section C. 4 of the Emergency Plan states: "Those members of the Emergency Response Organization who are not on site at the time of the emergency shall be able to augment the Onshift Response Organization within approximately 60 to 75 minutes of being notified as specified in Table C-1 (prior to fuel load) to provide manning levels recommended in NUREG-0654." According to "Attachment 1: Cross Reference", Table C-1 of the Emergency Plan is responsive to NUREG-0654, Table B-1 (see NUREG-0654 Criterion B.5). There are differences between NUREG-0654 Table B-1 and Emergency Plan Table C-1, and additional information is being requested as follows: a) Explain why 30-minute "Capability for Additions" is not included in Table C-1. Per NUREG-0654, 30-minute augmentation is identified for Functional Areas "Notification/ Communication", "Radiological Accident Assessment and Support of Operational Accident Assessment", "Plant System Engineering, Repair and Corrective Actions", and "Protective Actions (In-Plant)". Justify how and indicate where the identified additional staffing need and/or function are satisfied; b) In the struck-out Table C-1, a column existed with the title "AVAILABLE 75 MINUTES#". Explain why this column was deleted, and justify how and indicate where the resulting changes are addressed; c) The note with "#" at the end of Table C-1 says: "Although such a short response time may be achieved in many cases, it is not possible to assure this response time in every instance.". Elaborate which cases and under what conditions this stipulation will be used, and why a disclaimer to program capabilities is necessary in relation to NUREG-0654; d) Under Major Functional Area "Radiological Accident Assessment and Support of Operational Accident Assessment", 2 personnel onshift were identified for Major Task "onsite/offsite surveys". Justify how and indicate where the identified additional staffing need and/or function are satisfied in comparison to any unit requirements for HP expertise (per Tech. Specs. or other specific requirements); e) Under Major Functional Areas "Radiological Accident Assessment and Support of Operational Accident Assessment" and "Protective Actions (In-Plant)", NUREG-0654 identifies 7 HP (RP) Tech.-specific positions to be available within 30 minutes. Table C-1 does not provide clear staffing to satisfy this need within 30 minutes, but does identify 11 HP (RP) Tech.-specific positions available to respond within 60 minutes. Justify how and indicate where the identified staffing need and/or function are satisfied for the 30-minute positions; f) Under Major Functional Area "Plant System Engineering, Repair and Corrective Actions", NUREG-0654 identifies one "Core/ Thermal Hydraulics" position for Major Task "Technical Support" to be available within 30 minutes. Table C-1 identifies one "Nuclear Engineer" to be available within 60 minutes. This is contrary to the stipulation in NUREG-0654. Justify how and indicate where the identified additional

staffing need and/or function are satisfied; g) Under Major Functional Area "Plant System Engineering, Repair and Corrective Actions", two Shift Technical Advisors (STAs) are identified with "***", meaning "These positions may be covered by onshift personnel assigned other functions". Provide justification to support this statement, including license amendment approval if the STA position criteria have been altered; 2) Section C.4, page C-6, of the Emergency Plan discusses staff augmentation allowable time "...within approximately 60 to 75 minutes of being notified as specified in Table C-1(prior to fuel load)..": a) Neither NUREG-0654 Table B-1 nor Emergency Plan Table C-1 provides an option for 75-minute addition capability (i.e., "AVAILABLE 75 MINUTES #" option). Refer to Section C.4 and explain how the extended period of time for staff augmentation following declaration of an emergency provides an acceptable alternative to 10 CFR 50.47(b)(2) requirements, as exemplified by guidance in NUREG-0654, and then revise Table C-1 to reflect this change; b) "...60 to 75 minutes of being notified.." is an open-ended initiation of staff augmentation. Revise this statement to be consistent with 10 CFR 50.47(b)(2) requirements, as amplified by guidance in NUREG-0654, or explain how this provides an acceptable alternative to 10 CFR 50.47(b)(2) requirements, as exemplified by guidance in NUREG-0654. 3) Explain the reference regarding "(prior to fuel load)". Are there expectations that emergency response organization complements or activation times will change following fuel load?

REVISED RESPONSE:

Responses below supersede our previous RAI responses.

Reference: NRC Safety Evaluation Report (SER) dated May 20, 1993: SOUTH TEXAS PROJECT UNITS 1 AND 2-REVISION TO EMERGENCY PLAN STAFF AUGMENTATION TIMES (TAC NOS. M84901 AND M849020)

- 1)
 - a) Due to the remoteness of the STP site from the predominant residential locales utilized by STP operations personnel, alternate "Capability for Additional Staffing" times (or Staff Augmentation times) of 60 and 75 minutes were previously proposed and justified for the STP site. This proposal was reviewed and found acceptable by the NRC staff (referenced SER above). In the SER, the staff concluded that the Emergency Plan continues to meet the requirements of 10CFR50.47(b) and 10CFR50 Appendix E. This SER also noted that the Emergency Plan maintains an excess of seven (7) personnel on shift for the 30 minute goal of NUREG 0654/FEMA REP-1, Section B, Table B-1 (NUREG Table B-1) and concluded that all the key functional areas are covered. Based on the proposed change and the staff's approval of the change, the Emergency Plan does not include a 30-minute "Capability for Additional Staffing" criterion in Table C-1.
 - b) The 75 minute column has been restored. The revised Table will have 60 and 75 minute columns consistent with the SER referenced above. The struck portions of Emergency Plan Table C-1 will be removed in their entirety.
 - c) The Note annotated "#" does not apply to any case addressed by Emergency Plan Table C-1. The symbol "#" and corresponding Note will be removed from Table C-1.

- d) As indicated in Emergency Plan Table C-1, STPNOC maintains two (2) Health Physics (HP) positions on shift for the Offsite or Onsite (out-of plant) surveys. This total exceeds the one (1) minimum identified in NUREG Table B-1. In addition, STP maintains Senior Health Physics Expertise on shift at all times, whereas NUREG Table B-1 does not require this capability until the first staff augmentation period. Also note that NUREG Table B-1 does not reflect a need for Offsite or Onsite (out-of plant) surveys until the start of the first staff augmentation period. At the start of STPNOC's first staff augmentation period (see response to Question 1 a) above) Emergency Plan Table C-1 exceeds the NUREG Table B-1 requirements for HP personnel.
 - e) Refer to the response to Question 1a) above for a discussion and justification for the Staff Augmentation times recognized by STPNOC's Emergency Plan Table C-1.
 - f) No changes to previous response
 - g) No changes to previous response
- 2) a) & b)
Refer to the response to Question 1a) above for a discussion and justification for the Staff Augmentation times recognized by STPNOC's Emergency Plan Table C-1.
- 3) The reference to "prior to fuel load" will be deleted from C.4 of the Emergency Plan as indicated below. In addition, the augmentation time is returned to 75 minutes based on the discussions above related to the SER issued on May 20, 1993:

C.4 Emergency Response Organization

Those members of the Emergency Response Organization who are not on site at the time of the emergency shall be able to augment the On-shift Response Organization within approximately 60 to and 75 minutes of being notified as specified in Table C-1 (~~prior to fuel load~~) to provide manning levels recommended in NUREG-0654.

Table C-1 will be replaced in its entirety (provided below). A summary of changes to Section-C of the submitted Emergency Plan, Revision 2 is also provided below to assist the reviewer with determining the changes provided with this response.

TABLE C-1
Page 1 of 3
MINIMUM STAFFING REQUIREMENTS (STPEGS)
(Including Capability for Additional Staffing)

MAJOR FUNCTIONAL AREA	POSITION TITLE	UNIT 1/2 ONSHIFT*	UNIT 3/4 ONSHIFT*	ONSITE ONSHIFT	AVAILABLE 60 MINUTES#	AVAILABLE 75 MINUTES#
Plant Operations and Assessment of Operational Aspects	Shift Supervisor	-	-	2	1	1
	Unit Supervisor	1	1	-	1	1
	Reactor Operators	2	2	-	1	1
	Plant Operators	2	2	-	1	1
	Shift Technical Advisor	-	-	1**	1	1
	Plant Operations Discipline Lead	-	-	-	1	1##
Emergency Direction and Control *** (Emergency Director)	Shift Supervisor	1**	1**	-	1	1
Notification/Communications	-	-	-	2	1	2
Radiological Accident Assessment and Support of Operational Accident Assessment	Emergency Director	-	-	-	1	1
	Senior Health Physics Expertise (Dose Assessment)	-	-	1	1	1
	RP Technicians (onsite/offsite surveys)	-	-	2	3	4
	Chemistry Technician	-	-	1	1	1

TABLE C-1
Page 2 of 3
MINIMUM STAFFING REQUIREMENTS (STPEGS)
(Including Capability for Additional Staffing)

MAJOR FUNCTIONAL AREA	POSITION TITLE	UNIT 1/2 ONSHIFT*	UNIT 3/4 ONSHIFT*	ONSITE ONSHIFT	AVAILABLE 60 MINUTES#	AVAILABLE 75 MINUTES#
Plant System Engineering	Shift Technical Advisor	-	-	1**	1	1
	Nuclear Engineer	-	-	-	1	1
	Electrical Engineer	-	-	-	1	1
	Mechanical Engineer	-	-	-	1	1
Repair and Corrective Actions	Radwaste Operator	1**	1**			
	Mechanical Maintenance	-	-	1**	1	1
	Electrical Maintenance	-	-	1** AND 1	1	1
	I&C Technician	-	-	1	1	1
Protective Actions	RP Technicians (Access Control/RP Coverage for corrective actions, search and rescue, first aid, and fire-fighting/Personnel Monitoring/Dosimetry)	-	-	2**	4	4
Fire Suppression	Plant Operations personnel	-	-	Fire Brigade per Technical Specifications	Local Support	Local Support

TABLE C-1
Page 3 of 3
MINIMUM STAFFING REQUIREMENTS (STPEGS)
(Including Capability for Additional Staffing)

MAJOR FUNCTIONAL AREA	POSITION TITLE	UNIT 1/2 ONSHIFT*	UNIT 3/4 ONSHIFT*	ONSITE ONSHIFT	AVAILABLE 60 MINUTES#	AVAILABLE 75 MINUTES#
Rescue Operations and First Aid	Plant Protection Personnel	-	-	2**	Local Support	Local Support
Site Access Control and Personnel Accountability	Plant Protection Personnel (Security/Com munications/Per sonnel Accountability)	-	-	All per Security Plan	#	#
	TOTAL	5	5	15	8	13

- Notes:
- * For each unaffected unit in operation, maintain at least one Unit Supervisor, two Reactor Operators, and two Plant Operators. In accordance with Section 6.0 of the Technical Specifications for each unit, the shift crew composition may be less than the minimum number of operators (licensed or non-licensed) shown above for a period of time not to exceed two (2) hours in order to accommodate unexpected absences of on-duty shift crew members, provided immediate actions are taken to restore the crew composition. The minimum staff for a unit in cold shutdown will be one Senior Reactor Operator, one Reactor Operator, and one Plant Operator for that unit.
 - ** These positions may be covered by onshift personnel assigned other functions.
 - *** Overall, direction of emergency response to be assumed by the Emergency Director at the Emergency Operations Facility when all centers are fully manned. Direction of minute-to-minute facility operation remains with senior manager in the Technical Support Center or Control Room.
 - # Although such a short response time may be achieved in many cases, it is not possible to assure this response time in every instance.
 - ## This position is filled by personnel with plant operations experience

Summary of Changes to Section 'C' Emergency Plan

The corrections to Section 'C' of the Emergency Plan are reflective of the current on shift staffing and augmentation criteria for Units 1 & 2 and the associated Safety Evaluation Report (SER) issued to STP. SER was issued in a letter from the NRC on May 20, 1993 to Mr. William T. Cottle, Group Vice President, Nuclear from Mr. Lawrence E. Kokajko, Project Directorate IV-2, Office of NRR. The SER allowed for a 75 minute augmentation time of the on shift Emergency Response Organization (ERO).

Additional changes to this section were in response to Request for Additional Information (RAI) letter 56 related to Combined Operating License Application (COLA) Part 2, Tier 2, Section 13.3 and COLA Part 5 Emergency Plan.

The below list is a summary of changes to Revision 2 of the submitted Emergency Plan for STP COLA.

1. Section C.4 deleted "(prior to fuel load)".
2. Struck out Table C-1 (pages C-11, 12, and 13) has been removed in its entirety.
3. Revised Table C-1 (Pages C-14, 15, and 16):
 - a. Changed "Available in 60 minutes" to "Available in 75 minutes"
 - b. Added a new column "Available in 60 Minutes" column includes:
 - (1) Nuclear Engineer
 - (3) Health Physics Personnel for onsite/offsite surveys.
 - (4) Health Physics Personnel for Access Control/RP Coverage for corrective actions, search and rescue, first aid, and fire fighting/personnel monitoring/dosimetry.
 - c. Repaginated to C-11, 12, and 13 due to deletion of struck out table.
4. Added "##" to Plant Operations Discipline Lead 75 minute responder.
5. Removed # from footnotes and throughout table.

The below Table "On Shift Staffing - 75 Minute Augmentation of On Shift" provides a summary description of the submitted Table C-1 of the Emergency Plan. The table is an abbreviated format for ease of use reflecting on shift and 75 minute augmentation. The table also provides a summary of the total complement and how the staffing is determined with clarifying notes.

On Shift Staffing - 75 Minute Augmentation of On Shift

South Texas Project

Position/Title/Function	Emergency Plan Section 'C'	Revision 20 (Current)	COLA Revised	Rev 2-COLA Increase	75 Minute Augmentation
Shift Supervisor (Emergency Director)	C.3.1	2*	2/Rx Type Total (4)*	+2	(1) EOF/TSC Emergency Director
Shift Technical Advisor	C.3.5	1*	1/Rx Type Total (2)*		0
Unit Supervisor (SRO)	C.3.7	1-Per Unit Total (2)	1-Per Unit Total (4)	+2	0
Control Room Operators (Licensed)	C.3.7	2-Per Unit Total (4)	2-Per Unit Total (8)	+4	0
Plant Operators (non-licensed)	C.3.7	2-Per Unit Total (4)	2-Per Unit Total (8)	+4	1***
Notifications	ENS-C.3.6 St/Co-C.3.7	2	3	+1	2
Senior HP/Dose Assessment	C.3.2	1	1	0	
Offsite/Onsite Survey	C.3.2	2	2	0	3 @ 60 Minutes and 4 @ 75
Chemistry Technician	C.3.8	1	1	0	1
Mechanical Maintenance	C.3.9	1**	1**	0	1
Electrical Maintenance	C.3.9	1 and 1**	1 and 1**	0	1
I&C Maintenance	C.3.9	1	1	0	
Access Control/Dosimetry	C.3.4	2**	2**	0	4 @ 60 Minutes
Fire Brigade	N/A-Tech Specs #	Per Tech Spec #	Per Tech Spec #	0	
Rescue First Aid	C.3.7	2	2	0	
Security	C.3.3 and 3.3.10	Per Security Plan	Per Security Plan	0	
Total on shift	N/A	25	38	+13	N/A
Total additional 75 minutes	N/A	N/A	N/A	N/A	17

Clarifications and footnotes:

*Two qualified Shift Supervisors are on shift at all times. During an event one of the Shift Supervisors qualified as an STA may fill the STA position. Based on this the STA position is not included in the total on shift complement above. The capabilities for an individual to perform the STA function exist on shift.

** One (1) chemistry and one (1) maintenance supervisor is maintained on shift at all times. These personnel are trained in access and dosimetry functions. Therefore, in the total on shift complement head count only one (1) of the Access Control/Dosimetry is included in the total on shift complement above.

*** Position is filled by an individual with operations experience to the Operations Support Center.

Fire brigade personnel are a composite of the Operations on shift staffing from all 4 Units. The fire brigade members, if assigned fire response duties are not designated to fulfill an on shift Emergency Plan response function.

RAI 13.03-40

QUESTION:

ONSITE EMERGENCY PLAN: SITE-23: Subject: Alignment of activation times [Basis: 10 CFR 50.47(b)(8); NUREG-0654, FEMA-REP-1, Rev. 1, November 1980: Criteria H.1 & 2; NUREG-0696, Rev. 1] Explain the alignment of identified activation times for emergency response facilities in Sections G.2, G.3, and G.4 of the STP 3 & 4 Emergency Plan, specifically, the meaning of “fully activated” for the OSC “within approximately 75 minutes after notification of an Alert”, for the TSC “within approximately 75 minutes after notification of an Alert”, and the EOF “within approximately 75 minutes of declaration of Site Area Emergency or higher”. Provide an explanation for the difference among the three above facilities in the initiation of the activation clock and the difference between the timeliness of full facility activation and the minimum staffing positions and response times in Table C-1.

REVISED RESPONSE:

Responses below supersede previous RAI responses.

The following marked-up and replacement text will be inserted in Section G.2 last paragraph:

G.2 Operations Support Center

The Operations Support Center is designed to be fully activated within approximately 75 ~~60~~ minutes after ~~notification~~ declaration of an Alert, in conjunction with the Technical Support Center. Radiation levels in and around the Operations Support Center are assessed during radiological events.

The following marked-up and replacement text will be inserted in Section G.3 last paragraph:

G.3 Technical Support Center

Each Technical Support Center is designed to be fully activated within approximately 75 ~~60~~ minutes after ~~notification~~ declaration of an Alert, in conjunction with activation of the Operations Support Center. The Technical Support Center may activate simultaneously with activation of the Operations Support Center.

The following marked-up and replacement text will be inserted in Section G.4 second paragraph:

G.4 Emergency Operations Facility

The Emergency Operations Facility provides for management of overall Station emergency response, coordination of radiological and environmental assessment, determination of recommended offsite protective actions, and coordination of emergency response activities with Federal, State, and County authorities. The Emergency Operations Facility can be fully activated within approximately 75 ~~60~~ minutes of declaration of Site Area Emergency or higher. When activated, the Emergency Operations Facility will be staffed by Emergency Response personnel.

RAI 13.03-39

QUESTION:

ONSITE EMERGENCY PLAN: SITE-22: Subject: Inconsistency and footnotes clarification involving minimum staffing [Basis: 10 CFR 50.47(b)(2); NUREG-0654, FEMA-REP-1, Rev. 1, November 1980:Criteria B.5, B.7] 1) Describe how the minimum staffing availability described in Table C-1 aligns with identified minimum staffing positions in Figures C-2, C-3, C-4, and C-5. 2) Explain the meaning and application for the “#” and “##” footnotes under Table C-1, page C-16. For the “#” reference, are you implying that the capability for consistent response capabilities is not in place? For the “##” reference, will this be a collateral duty of operations staff minimally required by Technical Specifications? Will other unit operations staff be collaterally used for emergency response functions? Please discuss detailed examples for application of these footnotes.

REVISED RESPONSE:

- 1) The table provided below supersedes our previous response to this RAI. Table describes the cross references between Figures C-2, C-3, and C-4 with Table C-1.

Minimum Staffing	Table C-1 Functional Area	Table C-1 Response Time
Figure C-2		
TSC Manager	Radiological Accident Assessment and Support of Operational Accident Assessment	Call out 60 75 Minutes
TSC Communicator	Notification/Communications	Call out 60 75 Minutes
Operations Communicator	Notification/Communications	Call out 60 75 Minutes
Electrical Engineer	Plant System Engineering	Call out 60 75 Minutes
Mechanical Engineer	Plant System Engineering	Call out 60 75 Minutes
Nuclear Engineer	Plant System Engineering	Call out 60 Minutes
Figure C-3		
Plant Operations	Plant Operations and Assessment of Operational Accident Aspects	Call out 60 75 Minutes
Chemical Analysis	Radiological Accident Assessment and Support of Operational Accident Assessment	(1) Onshift (1) Call in 75 Minutes
Electrical Maintenance	Repair and Corrective Actions	(1) Onshift (1) Call in 75 Minutes
Mechanical Maintenance	Repair and Corrective Actions	(1) Onshift (1) Call in 75 Minutes
I&C Technician	Repair and Corrective Actions	(1) Onshift
Radiation Protection	Radiological Accident Assessment and Support of Operational Accident Assessment	(3) Call out 60 Minutes
Figure C-4		
Offsite Field Team	Protective Actions	(4) Call out 60 Minutes

- 2) The response below supersedes our previous response to this RAI.

Response to RAI 13.03-38 1) c) removes the # footnote:

The “##” provides clarifying information related to the qualifications of the Emergency Response Organization member called out to staff this position. This position is identified as an ERO call-out available within 60-75 minutes. The position on the ERO Roster is filled by a day staff employee with operations experience. Based on this clarification, STP has determined that detailed examples are not necessary for this footnote.

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