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

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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498 and STN 50-499
Technical Specification Bases Change

The South Texas Project Technical Specification Bases Sections 3/4.3.1 and 3/4.3.2 have been changed pursuant to 10CFR50.59. This change does the following:

- Clarifies that the Extended Range, Neutron Flux instrumentation denoted in LCO 3.3.1, Item 7 in Tables 3.3-1 and 4.3-1 is referring to the Gamma-Metrics Shutdown Monitors.
- Provides the bases to demonstrate that the radiation monitor and manual functions that provide input into the control room and FHB HVAC ESFAS systems can perform their design safety function with the SSPS "in test", and therefore would remain OPERABLE during this condition in MODES 5 and 6.
- Provides the bases to demonstrate that ACTION 10 on Table 3.3-1 is not applicable in MODE 5 when control rods are at the top or above the active fuel region (≥ step 259).

Attached is a copy of the revised Technical Specification Bases pages. If there are any questions regarding this matter, please contact Mr. K. J Taplett at (361) 972-8416 or me at (361) 972-7136.

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Kjt

Attachment: Revised Technical Specification Bases Pages B 3/4 3-2a and B 3/4 3-2b

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REACTOR TRIP SYSTEM and ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION (Continued)

The Engineered Safety Features Actuation System senses selected plant parameters and determines whether or not predetermined limits are being exceeded. If they are, the signals are combined into logic matrices sensitive to combinations indicative of various accidents, events, and transients. Once the required logic combination is completed, the system sends actuation signals to those Engineered Safety Features components whose aggregate function best serves the requirements of the condition. As an example, the following actions may be initiated by the Engineered Safety Features Actuation System to mitigate the consequences of a steam line break or loss-of-coolant accident: (1) Safety Injection pumps start, (2) Reactor trip, (3) feedwater isolation, (4) startup of the standby diesel generators, (5) containment spray pumps start and automatic valves position, (6) containment isolation, (7) steam line isolation, (8) Turbine trip, (9) auxiliary feedwater pumps start and automatic valves position, (10) reactor containment fan coolers start, (11) essential cooling water pumps start and automatic valves position, (12) Control Room Ventilation Systems start, and (13) component cooling water pumps start and automatic valves position.

The function of the Extended Range, Neutron Flux instrumentation in Table 3.3-1 is to provide a shutdown monitor alarm during subcritical conditions to detect a flux increase (multiplication) and to alert the operator to a possible boron dilution event and pending loss of shutdown margin. The shutdown monitor has no trip function. Shutdown Monitors initiate a flux multiplication alarm (via QDPS) designed to alert the operator to a possible boron dilution event. This provides a minimum of 15 minutes to respond to a dilution event which is consistent with the safety analysis.

The Extended Range, Neutron Flux instrumentation denoted in LCO 3.3.1, Item 7 in Tables 3.3-1 and 4.3-1 is referring to the Gamma-Metrics Shutdown Monitors. The circuitry consists of hardware/software components which are unique to the Shutdown Monitor itself, such as the flux multiplication alarm contacts; as well as hardware which is shared with the Remote Shutdown (LCO 3.3.3.5) and the Accident Monitoring (LCO.3.3.3.6) QDPS Extended Range, Neutron Flux instrumentation. Inoperability of the Shutdown Monitors does not affect the OPERABILITY of the QDPS Extended Range instrumentation except for reasons of common mode failure. Conversely, inoperability of the QDPS Extended Range instrumentation should be evaluated for common mode failure with respect to the Shutdown Monitor to verify OPERABILITY of the Shutdown Monitor. (CR 97-908-8)

In MODES 1, 2, 3, and 4, the radiation monitor actuation of the Control Room Ventilation and FHB HVAC Functional Units is a backup for the SI actuation. The radiation monitor actuation of the Control Room Ventilation and FHB HVAC Functional Units in MODES 5 and 6 is the primary means to ensure that these units perform their function in the event of a fuel handling accident. The automatic and manual radiation monitor inputs are independent of the SI relays in the SSPS. The radiation monitor and manual functions can perform their design safety function with the SSPS "in test", and therefore would remain OPERABLE during this condition in MODES 5 and 6. (CR 97-908-13)

REACTOR TRIP SYSTEM and ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION (Continued)

When control rods are at the top or above the active fuel region (≥ step 259), they are no longer capable of adding positive reactivity to the core, and as such, they are not capable of rod withdrawal as intended by MODE 5*. Therefore, ACTION 10 on Table 3.3-1 is not applicable in this region. This allows the Reactor Trip Breakers to be closed, without meeting the requirements of MODE 5*, while unlocking and stepping the control rods to a position no lower than 259. (CR 97-908-17)

ACTION 27 for an inoperable channel of control room ventilation requires the associated train of control room ventilation to be declared inoperable and the appropriate action take in accordance with Specification 3.7.7. Each control room ventilation system (train) is actuated by its own instrumentation channel. Consequently an inoperable channel of ventilation actuation instrumentation renders that system/train of ventilation inoperable and Specification 3.7.7 prescribes the appropriate action.

With less than the minimum channels of Control Room Intake Air Radioactivity - High, ACTION 28 of Table 3.3-3 requires the Control Room Makeup and Cleanup Filtration System to be operated at 100% capacity in the recirculation and filtration mode. Any two of three 50% Control Room Makeup and Cleanup Filtration System trains meet the 100% capacity requirement.