



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

July 28, 2011

Mr. G. T. Powell, Vice President  
Technical Support and Oversight  
STP Nuclear Operating Company  
P.O. Box 289  
Wadsworth, TX 77483

SUBJECT: REQUESTS FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE  
SOUTH TEXAS PROJECT, LICENSE RENEWAL APPLICATION – SCOPING  
AND SCREENING AUDIT (TAC NOS. ME4936 AND ME4937)

Dear Mr. Powell:

By letter dated October 25, 2010, STP Nuclear Operating Company, submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54, to renew operating licenses NPF-76 and NPF-80 for South Texas Project, Units 1 and 2, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review.

These requests for additional information were discussed with Arden Aldridge, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-3873 or by e-mail at [john.daily@nrc.gov](mailto:john.daily@nrc.gov).

Sincerely,

A handwritten signature in black ink that reads "John W. Daily".

John W. Daily, Senior Project Manager  
License Renewal Branch RPB1  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosure:  
As stated

cc w/encl: Listserv

SOUTH TEXAS PROJECT  
LICENSE RENEWAL APPLICATION  
REQUESTS FOR ADDITIONAL INFORMATION

**RAI 2.1-1**

Background:

Title 10 of the *Code of Federal Regulations* (10 CFR) 54.4, "Scope," states, in part,

(a) Plant systems, structures and components within the scope of this part are:

- (1) Safety-related systems, structures, and components which are those relied upon to remain functional during and following design-basis events (as defined in 10 CFR 50.49 (b)(1)) to ensure the following functions:
  - (i) The integrity of the reactor coolant pressure boundary;
  - (ii) The capability to shut down the reactor and maintain it in a safe shutdown condition; or
  - (iii) The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referred to in 10 CFR 50.34(a)(1), 10 CFR 50.67(b)(2), or 10 CFR 100.11, as applicable.

Issue:

During the scoping and screening methodology audit, performed on-site May 16-19, 2011, the U.S. Nuclear Regulatory Commission (NRC or the staff) determined, through a review of the license renewal implementing documents and discussions with STP Nuclear Operating Company (STPNOC or the applicant), that a quality class, "QC-4," had been used in identifying structures, systems, and components (SSCs) to be included within the scope of license renewal in accordance with 10 CFR 54.4(a)(1) that was not addressed in the license renewal application.

Request:

The staff requests that the applicant provide a description of the process used to evaluate components identified as QC-4 in the plant equipment database or other documents, to identify SSCs to be included within the scope of license renewal in accordance with 10 CFR 54.4(a)(1). The staff requests that the applicant perform a review of this issue and indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have been included within the scope of license renewal in accordance with 10 CFR 54.4(a). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which aging management reviews were conducted or any additional information related to material and environment combinations. For each structure and component, describe the aging management programs, as applicable, to be credited for managing the identified aging effects.

ENCLOSURE

## RAI 2.1-2

### Background:

10 CFR 54.4, "Scope," states, in part,

(a) Plant systems, structures and components within the scope of this part are:

- (1) Safety-related systems, structures, and components which are those relied upon to remain functional during and following design-basis events (as defined in 10 CFR 50.49 (b)(1)) to ensure the following functions:
  - (i) The integrity of the reactor coolant pressure boundary;
  - (ii) The capability to shut down the reactor and maintain it in a safe shutdown condition; or
  - (iii) The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referred to in 10 CFR 50.34(a)(1), 10 CFR 50.67(b)(2), or 10 CFR 100.11, as applicable.
- (2) All nonsafety-related systems, structures and components whose failure could prevent satisfactory accomplishment of any of the functions identified in (a)(1)(i), (ii), or (iii) of this section.

### Issue:

During the scoping and screening methodology audit, performed on-site May 16-19, 2011, the staff reviewed the license renewal application, license renewal implementing documents and had discussions with the applicant, to determine the applicant's approach for identifying nonsafety-related SSCs, with the potential to impact safety-related SSCs, and to include the nonsafety-related SSCs within the scope of license renewal in accordance with 10 CFR 54.4 (a)(2). The staff determined that the method used to address the potential for nonsafety-related SSCs to impact safety-related SSCs located in the turbine building as provided during discussions with the applicant, was different than the method provided in the license renewal application (LRA) and the applicant's implementing documents. The staff performed a plant walkdown of the safety-related SSCs located in the turbine building (feedwater regulating control valves' associated air solenoid valves and limit switches) and determined that there were nonsafety-related SSCs located within the vicinity of the safety-related SSCs. The LRA and the applicant's implementing documents stated that nonsafety-related piping and structures that could potentially interact with the safety-related solenoid valves and limit switches were included within the scope of license renewal in accordance with 10 CFR 54.4 (a)(2). However, during audit discussions with the staff, the applicant stated that the safety-related solenoid valves and limit switches were qualified to withstand the effects of the failure of nonsafety-related SSCs within the vicinity of the safety-related SSCs and, therefore, the nonsafety-related SSCs were not included within the scope of license renewal in accordance with 10 CFR 54.4 (a)(2).

Request:

The staff requests that the applicant perform a review of this issue and provide a discussion and basis for the position, as stated by the applicant during the scoping and screening methodology audit, that nonsafety-related SSCs within the vicinity of the safety-related solenoid valves and limit switches located in the turbine building are not required to be included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Indicate if the review concludes that use of the scoping methodology precluded the identification of systems, structures, and components (SSCs) which should have been included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a)(2) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which aging management reviews were conducted or any additional information related to material and environment combinations. For each structure and component, describe the aging management programs, as applicable, to be credited for managing the identified aging effects.

**RAI 2.1-3**

Background:

10 CFR 54.4, "Scope," states, in part,

(a) Plant systems, structures and components within the scope of this part are:

- (1) Safety-related systems, structures, and components which are those relied upon to remain functional during and following design-basis events (as defined in 10 CFR 50.49 (b)(1)) to ensure the following functions:
  - (i) The integrity of the reactor coolant pressure boundary;
  - (ii) The capability to shut down the reactor and maintain it in a safe shutdown condition; or
  - (iii) The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referred to in 10 CFR 50.34(a)(1), 10 CFR 50.67(b)(2), or 10 CFR 100.11, as applicable.
- (2) All nonsafety-related systems, structures and components whose failure could prevent satisfactory accomplishment of any of the functions identified in (a)(1)(i), (ii), or (iii) of this section.

Issue

During the scoping and screening methodology audit performed on-site May 16-19, 2011, the staff determined that the applicant had performed a plant walkdown in April 2011, subsequent to the submittal of the license renewal application, during which the applicant identified additional SSCs to be included within the scope of license of renewal in accordance with 10 CFR 54.4(a)(2). The applicant had not submitted this information to the NRC, which identified additional nonsafety-related SSCs to be included within the scope of license renewal.

Request:

The staff requests that the applicant perform a review of this issue and indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have been included within the scope of license renewal in accordance with 10 CFR 54.4(a). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which aging management reviews were conducted or any additional information related to material and environment combinations. For each structure and component, describe the aging management programs, as applicable, to be credited for managing the identified aging effects.

July 28, 2011

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Sincerely,

*/RA/*

John W. Daily, Senior Project Manager  
License Renewal Branch RPB1  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosure:  
As stated

cc w/encl: Listserv

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**ADAMS Accession No.:** ML11201A055

\*concurrence via e-mail

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Letter to G.T. Powell from John W. Daily dated July 28, 2011

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