

March 19, 2002

Mr. William T. Cottle
President and Chief Executive Officer
STP Nuclear Operating Company
South Texas Project Electric
Generating Station
P. O. Box 289
Wadsworth, TX 77483

SUBJECT: SOUTH TEXAS PROJECT, UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS
REVISING THE TECHNICAL SPECIFICATIONS (TAC NOS. MB2898 AND
MB2902)

Dear Mr. Cottle:

The Commission has issued the enclosed Amendment No. 137 to Facility Operating License No. NPF-76 and Amendment No. 126 to Facility Operating License No. NPF-80 for the South Texas Project, Units 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated August 2, 2001.

The amendments revise the TSs requirements by removing the containment post-tensioning system surveillance in TS 3/4.6.1.6, "Containment Structural Integrity," and replacing it with TS Section 6.8.3.I which describes and references the Containment Post-Tensioning System Surveillance Program.

A copy of our related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

/RA/

Mohan C. Thadani, Senior Project Manager, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosures: 1. Amendment No. 137 to NPF-76
2. Amendment No. 126 to NPF-80
3. Safety Evaluation

cc w/encls: See next page

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*See SE input

OFFICE	PDIV-1/PM	PDIV-1/LA	EMEB/BC*	TSB/BC*	OGC	PDIV-1/SC
NAME	MThadani	MMcAllister	Tcheng	Phern	AHodgdon	RGramm
DATE	2/15/02	2/13/02	10/29/01	11/9/01	3/14/02	3/15/02

OFFICIAL RECORD COPY

South Texas, Units 1 & 2

cc:

Mr. Cornelius F. O'Keefe
Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P. O. Box 910
Bay City, TX 77414

A. Ramirez/C. M. Canady
City of Austin
Electric Utility Department
721 Barton Springs Road
Austin, TX 78704

Mr. M. T. Hardt
Mr. W. C. Gunst
City Public Service Board
P. O. Box 1771
San Antonio, TX 78296

Mr. C. A. Johnson/R. P. Powers
AEP - Central Power and Light Company
P. O. Box 289
Mail Code: N5022
Wadsworth, TX 77483

INPO
Records Center
700 Galleria Parkway
Atlanta, GA 30339-3064

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

D. G. Tees/R. L. Balcom
Houston Lighting & Power Co.
P. O. Box 1700
Houston, TX 77251

Judge, Matagorda County
Matagorda County Courthouse
1700 Seventh Street
Bay City, TX 77414

A. H. Gutterman, Esq.
Morgan, Lewis & Bockius
1111 Pennsylvania Avenue, NW
Washington, DC 20004

Mr. J. J. Sheppard, Vice President
Engineering & Technical Services
STP Nuclear Operating Company
P. O. Box 289
Wadsworth, TX 77483

S. M. Head, Manager, Licensing
Nuclear Quality & Licensing Department
STP Nuclear Operating Company
P. O. Box 289, Mail Code: N5014
Wadsworth, TX 77483

Office of the Governor
ATTN: John Howard, Director
Environmental and Natural
Resources Policy
P. O. Box 12428
Austin, TX 78711

Jon C. Wood
Matthews & Branscomb
112 East Pecan, Suite 1100
San Antonio, TX 78205

Arthur C. Tate, Director
Division of Compliance & Inspection
Bureau of Radiation Control
Texas Department of Health
1100 West 49th Street
Austin, TX 78756

Jim Calloway
Public Utility Commission of Texas
Electric Industry Analysis
P. O. Box 13326
Austin, TX 78711-3326

February 2002

STP NUCLEAR OPERATING COMPANY

DOCKET NO. 50-498

SOUTH TEXAS PROJECT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 137
License No. NPF-76

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by STP Nuclear Operating Company* acting on behalf of itself and for Houston Lighting & Power Company (HL&P), the City Public Service Board of San Antonio (CPS), Central Power and Light Company (CPL), and the City of Austin, Texas (COA) (the licensees), dated August 2, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

* STP Nuclear Operating Company is authorized to act for Houston Lighting & Power Company (HL&P), the City Public Service Board of San Antonio, Central Power and Light Company, and the City of Austin, Texas, and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-76 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 137, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The South Texas Project Nuclear Operating Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Robert A. Gramm, Chief, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: March 19, 2002

STP NUCLEAR OPERATING COMPANY

DOCKET NO. 50-499

SOUTH TEXAS PROJECT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 126
License No. NPF-80

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by STP Nuclear Operating Company^{*} acting on behalf of itself and for Houston Lighting & Power Company (HL&P), the City Public Service Board of San Antonio (CPS), Central Power and Light Company (CPL), and the City of Austin, Texas (COA) (the licensees), dated August 2, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

^{*}STP Nuclear Operating Company is authorized to act for Houston Lighting & Power Company (HL&P), the City Public Service Board of San Antonio, Central Power and Light Company, and the City of Austin, Texas, and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-80 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 126, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The South Texas Project Nuclear Operating Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Robert A. Gramm, Chief, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: March 19, 2002

ATTACHMENT TO LICENSE AMENDMENT NOS. 137 AND 126

FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80

DOCKET NOS. 50-498 AND 50-499

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

3/4 6-9
3/4 6-10
3/4 6-11
3/4 6-11A
3/4 6-11B
6-18a*
6-18b

INSERT

3/4 6-9
3/4 6-10

6-18a*
6-18b

*Overleaf page provided to maintain document completeness. No changes on this page.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 137 AND 126 TO

FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80

STP NUCLEAR OPERATING COMPANY, ET AL.

SOUTH TEXAS PROJECT, UNITS 1 AND 2

DOCKET NOS. 50-498 AND 50-499

1.0 INTRODUCTION

On August 2, 2001, South Texas Project Nuclear Operating Company (STPNOC, licensee), submitted a license amendment request, pursuant to 10 CFR 50.90, revising the Technical Specifications (TSs) for South Texas Project (STP), Units 1 and 2. The STPNOC proposed to remove the containment post-tensioning system surveillance in TS 3/4.6.1.6, "Containment Structural Integrity," and replace it with TS Section 6.8.3.I which describes and references the Containment Post-Tensioning System Surveillance Program (CPTSSP).

The licensee proposed the changes to the TS to conform to the new regulatory requirements. The major portion of the changes involves replacing the requirements for tendon surveillance with inspection procedures in accordance with the requirements of Subsections IWE and IWL of the American Society of Mechanical Engineers (ASME) Code, Section XI, as supplemented by 10 CFR 50.55a(b)(2)(viii).

Specifically, the licensee proposed the following changes to the current TS:

1. Limiting Condition for Operation 3.6.1.6

- a. Replaced the sentence, "The structural integrity of the containment(s) shall be maintained at a level consistent with the acceptance criteria in Specification 4.6.1.6," with the sentence, "The structural integrity of the containment(s) shall be maintained as required by the Containment Post-Tensioning System Surveillance Program."
- b. Deleted the original ACTIONS a. and b. in Section 3.6.1.6 (Sections 3.6.1.6.a and 3.6.1.6.b) and replaced with the words, "If the containment is not OPERABLE, restore containment to OPERABLE status in one hour, or be in at least HOT STANDBY in the next 6 hours and be in COLD SHUTDOWN in the following 30 hours."

2. Surveillance Requirement 4.6.1.6, "Containment Prestressing System"

Deleted Section 4.6.1.6.1 (tendon surveillance inspection procedures and requirements), Section 4.6.1.6.2, "End Anchorages and Adjacent Concrete Surfaces," and Section 4.6.1.6.3, "Containment Surfaces," (Pages 3/4 6-9 through 3/4 6-11a), and replaced with the words, "Verify containment structural integrity in accordance with the Containment Post-Tensioning System Surveillance Program."

3. Section 6.8, "Procedures and Programs," Subsection 6.8.3

The licensee added the following description of "Containment Post-Tensioning System Surveillance Program":

This program provides controls for monitoring any tendon degradation in prestressed concrete containments, including effectiveness of its corrosion protection medium, to ensure containment structural integrity. The program shall include baseline measures prior to initial operations. The Containment Post-Tensioning System Surveillance Program shall be in accordance with ASME Code Section XI, Subsection IWL, 1992 Edition with 1992 Addenda, as supplemented by 10 CFR 50.55a(b)(2)(viii).

2.0 BACKGROUND

On January 7, 1994, the Nuclear Regulatory Commission (NRC) published a proposed amendment to the regulations to incorporate by reference the 1992 Edition with the 1992 Addenda of Subsections IWE and IWL of Section XI, Division I of the ASME Boiler and Pressure Vessel Code (the Code). The final rule, Subpart 50.55a(g)(6)(ii)(B) of Title 10 of the *Code of Federal Regulations* (10 CFR), became effective on September 9, 1996, and requires licensees to implement Subsections IWE and IWL, with specified modifications and limitations, by September 9, 2001.

The limitations on the containment structure internal pressure ensure that: (1) the containment structure is prevented from exceeding its design negative pressure differential with respect to the outside atmosphere, and (2) the containment structure peak pressure does not exceed the design pressure resulting from a steam line break.

The internal pressure limitation ensures that the structural integrity of the containment will be maintained comparable to the original design standards for the life of the facility. Structural integrity is required to ensure that the containment will withstand the maximum pressure in the event of a steam line break.

The post-tensioned tendon system is an integral structural force-resisting component of the containment structure. The post-tensioning system consists of three groups of tendons: horizontal or hoop, vertical, and dome. The tendon system provides a compressive force in the containment structure concrete, which counteracts the internal pressure inside the structure, postulated to occur during certain accidents such as loss-of-coolant accidents and steam line breaks. The tendons were installed in ducts embedded within the containment structure concrete and tensioned to a prescribed force.

Over time the force in the individual tendons is expected to decrease due to losses caused by phenomena, such as: tendon wire relaxation and concrete creep and shrinkage. The amount of force initially provided by the tendon design and installation accounted for these tendon force losses. The CPTSSP measures the force in a small sample population of tendons from each of the groups at predetermined time intervals. This ensures the rate of tendon force loss is within predicted limits and that the minimum tendon force required to meet the design basis will be available through the time of the next scheduled surveillance.

3.0 EVALUATION

As stated above, the *Code of Federal Regulations* Section 10 CFR 50.55a has been amended to incorporate, by reference, the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, Subsection IWL, 1992 Edition including 1992 Addenda. Additionally, 10 CFR 50.55a contains requirements and limitations that augment the ASME Code. The tendon surveillance requirements currently reflected in the TS and the final safety analysis report (FSAR) comply with the criteria that were applicable when the STP, Units 1 and 2 were licensed. The surveillance requirements in 10 CFR 50.55a and the ASME Code Section XI include requirements beyond those in the current STP, Units 1 and 2 TS and FSAR.

In its submittal, the licensee proposed to delete the details of tendon surveillance inspection procedures and requirements, including requirements for the end anchorages and adjacent concrete surfaces, and containment surfaces, from the current TS, and proposed to demonstrate the containment structural integrity through the implementation of its CPTSSP. According to the licensee, the CPTSSP has incorporated the requirements for the surveillance of the reactor building post-tensioned tendon system as specified in 10 CFR 50.55a(b)(2)(vi), "Effective Edition and Addenda of Subsection IWE and Subsection IWL, Section XI," and 10 CFR 50.55a(b)(2)(viii), "Examination of Concrete Containments." In the Technical Analysis section of the request for amendment, the licensee added that there would be no change in the design basis and in the level of compliance with the General Design Criteria. The licensee further clarified that the proposed TS change only incorporates the tendon surveillance requirements by reference into the CPTSSP and there is no actual change in the requirements. Consequently, there is no impact on safe operation of the STP, Units 1 and 2 as a result of the proposed change. The licensee's justification indicates that through the implementation of the CPTSSP (the measurement of tendon lift force, the tensile tests of the tendon wires, the visual examination of tendons, anchorages and exposed interior and exterior surfaces of the containment, and the Type A leakage test), the containment structural integrity can be ensured to withstand a maximum pressure in the event of a steam line break accident.

The NRC staff reviewed the proposed changes to the TS related to containment structural integrity and found that the elements contained in the revised TS are acceptable on the basis of the following requirements: (1) the containment structural integrity will be maintained via the provision of proposed TS 4.6.1.6, (2) the procedures of the CPTSSP are in accordance with the 1992 Addenda of ASME Code, Section XI, Subsection IWL as set forth in 10 CFR 50.55a, and (3) any degradation which exceeds the acceptance criteria detected through the CPTSSP will be reported to the NRC as committed in the unrevised TS reporting requirements.

Approval of the proposed TS changes does not relieve the licensee of its responsibility to report, pursuant to 10 CFR 50.73(a)(2)(ii), any event or condition that results in the condition of the nuclear power plant being seriously degraded. These conditions include serious

degradation of the containment concrete structure, such as de-lamination of the dome concrete, widely spread corrosion of the liner plate, corrosion of prestressing elements (wires, strands, bars) or anchorage components extending more than two tendons, and tendon force trend not meeting the requirement of 10 CFR 50.55a(b)(2)(viii)(B).

The NRC staff has, therefore, determined that the licensee's proposed changes to the TS are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Texas State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment permits changes to be made to certain operational limits and surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (67 FR 2929 dated January 22, 2002). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: P. Hearn
T. Cheng

Date: March 19, 2002