

July 21, 2003

Mr. James J. Sheppard
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
TO TECHNICAL SPECIFICATIONS AND UNIT 2 OPERATING LICENSE
REGARDING STEAM GENERATORS (TAC NOS. MB5158 AND MB5159)

Dear Mr. Sheppard:

The Commission has issued the enclosed Amendment No. 154 to Facility Operating License No. NPF-76 and Amendment No. 142 to Facility Operating License No. NPF-80 for the South Texas Project, Units 1 and 2, respectively. The amendments consist of changes to the Operating License and Technical Specifications (TSs) in response to your application dated May 23, 2002.

The amendments revise several sections of the TSs and to the Unit 2 Operating License to delete information differentiating between Unit 1 and Unit 2 specific to Model E steam generators.

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 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. 154 to NPF-76
2. Amendment No. 142 to NPF-80
3. Safety Evaluation

cc w/encls: See next page

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* See prior concurrence

NRR-058

OFFICE	PDIV-1/PM	PDIV-1/PM	PDIV-1/LA	DSSA/SRXB*	OGC* NLO with comments	PDIV-1/SC
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STP NUCLEAR OPERATING COMPANY

DOCKET NO. 50-498

SOUTH TEXAS PROJECT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 154
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 Texas Genco, LP, 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 May 23, 2002, 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 Texas Genco, LP, 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. 154 , and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The STP 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 120 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: July 21, 2003

STP NUCLEAR OPERATING COMPANY

DOCKET NO. 50-499

SOUTH TEXAS PROJECT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 142
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 Texas Genco, LP, 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 May 23, 2002, 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 Texas Genco, LP, 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 Operating License and 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. 142 , and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The STP 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 120 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 Operating License and
Technical Specifications

Date of Issuance: July 21, 2003

ATTACHMENT TO LICENSE AMENDMENT NOS. 154 AND 142

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. Also, replace the following page of the Facility Operating License No. NPF-80. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

INSERT

Operating License Unit, 2

Page 3

Page 3

TECHNICAL SPECIFICATIONS

Page 1-5

Page 1-5

Page 2-5

Page 2-5

Page 3/4 2-11

Page 3/4 2-11

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Page 3/4 7-2

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 154 AND 142 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

By application dated May 23, 2002, STP Nuclear Operating Company (the licensee), requested changes to the Technical Specifications (TSs) for South Texas Project (STP), Units 1 and 2.

The amendment requests revision to several sections of the TSs and Surveillance Requirements (SR) and the Unit 2 Operating License to delete information specific to Model E steam generators (SGs). The Model E SGs in Unit 1 have been replaced with Delta 94 SGs and replacement in Unit 2 was completed by the end of 2002. Since both units have Model Delta 94 SGs now, differentiation between the two SG models (Model E and Delta 94) will no longer be required. Therefore, specific references to either one of the two SGs models are removed at all places since both units have the same model.

Specifically, the proposed changes would:

1.1 TS 1.27

Delete the rated thermal power associated with Model E SGs in the definition.

1.2 Table 2.2-1

Delete the SG low-low water level trip setpoint and allowable value associated with Model E SGs.

1.3 TS 3.2.5

Delete the thermal design reactor coolant system flow value associated with Model E SGs.

1.4 Table 3.3-4

Delete the SG low-low water level trip setpoint and allowable value for auxiliary feedwater initiation associated with Model E SGs.

1.5 SR 4.4.5.2

Delete references to voltage-based repair criteria and to repairing Model E SG tubes.

1.6 SR 4.4.5.4

Delete descriptions of and references to tube sleeving, tube repairing, repair limit, and tube support plate plugging limit.

1.7 SR 4.4.5.5

Delete references to tube repairing, and the notification and reporting requirements for Model E SGs.

1.8 Table 4.4-2

Delete references to tube repairing.

1.9 Table 4.4-3

Delete this table in its entirety.

1.10 Table 3.7-1

Delete inoperable safety valve data and neutron flux setpoint data associated with Model E SGs.

1.11 Entire TSs

Delete all references to Delta 94 SGs in the TSs.

1.12 Operating License

Delete differentiation in the definition of 100 percent power level based on SG type in the Unit 2 Operating License.

In the application, the licensee states as follows:

The Model E SGs in Unit 1 were replaced with Delta 94 SGs in mid-1998. Operation with the Delta 94 SGs has increased reactor coolant system flow due to lower flow resistance. Thermal design flow increased from 95,400 gpm [gallons per minute] per loop to 98,000 gpm per loop and mechanical design flow increased from 106,600 gpm per loop to 110,000 gpm per loop. To reduce the resultant increased lift forces on the fuel assemblies, the thimble plugging devices were eliminated, resulting in a 2 percent increase in the design core bypass flow fraction. The design core bypass flow was also increased by 2 percent to account for upper head T_{COLD} conversion. The SG normal water level was increased and the SG low-low water level trip setpoint was reduced to provide increased operating margin. Other differences in the Delta 94 SGs include:

- 39% [percent] increase in heat transfer area
- 24% increase in primary side volume
- 4.5% increase in normal full load water level
- 6% reduction secondary side volume
- 60% reduction in moisture carryover

Beginning in 1999, as a result of the differences between the SG models, the TS were revised to reflect both models while Unit 1 was operating with Delta 94 SGs and Unit 2 was operating with Model E SGs (References 1 through 4). The Model E SGs in Unit 2 were replaced with Delta 94 SGs towards the end of 2002.

Operational limitations, setpoints, updated core thermal power, and surveillances for both Model E and Delta 94 SGs have been approved by the NRC (References 1 through 5). The proposed TSs amendments do not impact any accident or transient analysis described in the Updated Final Safety Analysis Report (UFSAR). The Model E SGs in Unit 1 were replaced with Delta 94 SGs in mid-1998, and beginning 1999, as a result of the differences between the SG models, the TSs were revised to reflect both models while Unit 1 was operating with Delta 94 SGs and Unit 2 was operating with Model E SGs. With the replacement of the Unit 2 Model E SGs with Model Delta 94 SGs in late 2002, the TSs and Operating License should reflect operational limitations, setpoints, updated core thermal power, and surveillances for the Delta 94 SGs only. Therefore, all information associated with the Model E SGs and all specific references to Delta 94 SGs are removed.

The licensee's application states that once approved, the amendments will be implemented within 30 days, but not before the steam generator replacement is complete. During a telephone call on June 5, 2003, the licensee requested the implementation period be 120 days instead of the 30 days. This change will facilitate the implementation of these amendments after the implementation of Amendment Numbers 145 (Unit 1) and 133 (Unit 2), issued on December 17, 2002.

2.0 REGULATORY EVALUATION

The regulatory framework for the requested licensing action includes a summary of relevant regulations. The regulatory requirement for which the staff based its acceptance is as follows:

10 CFR 50.36(b), which states:

"Each license authorizing operation of a production or utilization facility of a type described in [10 CFR] 50.21 or 50.22 will include technical specifications. The technical specifications will be derived from the analyses and evaluation included in the safety analysis report, and amendments thereto, submitted pursuant to 50.34."

3.0 TECHNICAL EVALUATION

The staff has reviewed the licensee's regulatory and technical analyses in support of its proposed license amendments which are described in Sections 4.0 and 5.0 of the licensee's submittal. The detailed evaluation below will support the conclusion 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.

Operational limitations, setpoints, updated core thermal power, and surveillances for Delta 94 SGs have been approved by the NRC (References 1 through 5). In particular, the NRC has previously evaluated and approved both Unit 1 and Unit 2 for operation at 3853 megawatts thermal with Model Delta 94 SGs installed (Reference 5). With the replacement of the Model E SGs in Unit 1 with Delta 94 SGs in mid-1998, and the Unit 2 SGs in late 2002, the TSs and Operating License should reflect operational limitations for the Delta 94 SGs only. The NRC staff has already concluded that TS changes associated with replacement of the Model E SGs with Model A94 SGs in Unit 2 are acceptable. The proposed TSs amendments do not impact any accident or transient analysis described in the UFSAR. Therefore, the proposal to remove all information associated with the Model E SGs and all specific references to Delta 94 SGs is encompassed by the current analysis and is acceptable.

However, overall approval of SG replacement is not addressed in this safety evaluation.

4.0 STATE CONSULTATION

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

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendments involve 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 amendments involve no significant hazards consideration, and there has been no public comment on such finding (67 FR 42831, dated June 25, 2002). The amendments also relate to changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

7.0 REFERENCES

1. NRC letter, T. W. Alexion to W. T. Cottle, "South Texas Project, Units 1 and 2 - Issuance of Amendments re: Replacement Steam Generator Reactor Coolant Flow Differences (TAC Nos. MA1911 and MA1912)," dated November 8, 1999.
2. NRC letter, T. W. Alexion to W. T. Cottle, "South Texas Project, Units 1 and 2 - Issuance of Amendments re: Replacement Steam Generator Water Level Trip Setpoint Differences (TAC Nos. MA2500 and MA2501)," dated December 29, 1999.
3. NRC letter, T. W. Alexion to W. T. Cottle, "South Texas Project, Units 1 and 2 - Amendment Nos. 107 and 94 to Facility Operating License Nos. NPF-76 and NPF-80 (TAC Nos. MA3761 and MA3762)," dated April 19, 1999.
4. NRC letter, M. C. Thadani to W. T. Cottle, "South Texas Project (STP), Unit 2 - Issuance of Amendment Revising the Technical Specifications to Implement 3-Volt Alternate Repair Criteria for Steam Generator Tube Repair (TAC No. MA8271)," dated March 8, 2001.
5. NRC letter, M. C. Thadani to W. T. Cottle, "South Texas Project, Units 1 and 2 - Issuance of Amendments Approving Updated Core Thermal Power and Revising the Associated Technical Specifications (TAC Nos. MB2899 and MB2903)," dated April 12, 2002.

Principal Contributor: N. Kalyanam

Date: July 21, 2003

South Texas, Units 1 & 2

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