

December 28, 2004

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, UNIT 1 - ISSUANCE OF AMENDMENT
RE: BLOCK VALVES FOR PRESSURIZER POWER OPERATED RELIEF
VALVES (TAC NO. MC4595)

Dear Mr. Sheppard:

The Commission has issued the enclosed Amendment No. 166 to Facility Operating License No. NPF-76 for the South Texas Project (STP), Unit 1. The amendment consists of a change to the Technical Specifications (TSs) in response to your application dated September 30, 2004. The identical license amendment was issued for STP, Unit 2, as Amendment No. 153 to Facility Operating License No. NPF-80, on October 21, 2004, under exigent circumstances.

The amendment changes TS 4.4.4.2 to expand the range of conditions under which quarterly testing of block valves for the pressurizer power operated relief valves would be unnecessary.

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/

David H. Jaffe, Senior Project Manager, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-498

Enclosures: 1. Amendment No. to NPF-76
2. Safety Evaluation

cc w/encls: See next page

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STP NUCLEAR OPERATING COMPANY

DOCKET NO. 50-498

SOUTH TEXAS PROJECT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 166
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), AEP Texas Central Company, and the City of Austin, Texas (COA) (the licensees), dated September 30, 2004, 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, AEP Texas Central 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. 166, 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 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Michael K. Webb, Acting 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: December 28, 2004

ATTACHMENT TO LICENSE AMENDMENT NO. 166

FACILITY OPERATING LICENSE NO. NPF-76

DOCKET NO. 50-498

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page are identified by amendment number and contains a marginal line indicating the area of change.

REMOVE

3/4 4-11

INSERT

3/4 4-11

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 166

FACILITY OPERATING LICENSE NO. NPF-76

STP NUCLEAR OPERATING COMPANY, ET AL.

SOUTH TEXAS PROJECT, UNIT 1

DOCKET NOS. 50-498

1.0 INTRODUCTION

By application dated September 30, 2004 (Accession No. ML042800229), STP Nuclear Operating Company (the licensee), requested changes to the Technical Specifications (TSs) for South Texas Project (STP), Unit 1.

The proposed changes would revise TS Surveillance Requirement (SR) 4.4.4.2 to expand the range of conditions under which quarterly testing of block valves for the pressurizer power operated relief valves (PORVs) would be unnecessary.

The identical license amendment was issued for STP, Unit 2, as Amendment No. 153 to Facility Operating License No. NPF-80, on October 21, 2004, under exigent circumstances.

2.0 REGULATORY EVALUATION

The regulation at Title 10, *Code of Federal Regulations* (10 CFR), Section 50.36(c)(3) states that, "Surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation [LCOs] will be met." The STP PORV block valves are the subject of LCOs and SRs in TS 3/4.4.4, "Relief Valves." At the present time, the quarterly (92-day) PORV block valve test, SR 4.4.4.2 is required to be performed unless one or both PORV block valves are closed for reasons other than excessive PORV seat leakage (Actions b. or c. of TS 3.4.4). TS Task Force (TSTF) Traveler No. 284 (TSTF-284), Revision 3, allows for the extension of the range of circumstances under which the quarterly testing of the PORV block valve is not required, to any of the Actions of TS 3.4.4. The NRC staff considered whether TSTF-284, Revision 3, should be applied to the specific case posed by STP. The NRC staff also considered relevant information in the STP, Units 1 and 2, Updated Final Safety Analysis Report (UFSAR) and TSs.

3.0 TECHNICAL EVALUATION

The PORVs are described in Section 5.4.13, "Safety and Relief Valves" of the STP, Units 1 and 2, UFSAR. The pressurizer is equipped with two PORVs, each of which has a block valve to be closed in the event that excessive PORV seat leakage is detected. The pressurizer PORVs are

not required to open in order to prevent the overpressurization of the Reactor Coolant System (RCS). The three pressurizer safety valves, by themselves, are sized to relieve enough steam to prevent an overpressurization of the primary system. Therefore, a loss of pressurizer PORV automatic control (or if the associated block valve is closed) and the subsequent failure of the PORVs to open will result in higher reactor coolant pressures, but will not cause any overpressurization problems. In fact, the opening of the PORV is a conservative assumption for the departure from nucleate boiling limited transients by tending to keep the primary system pressure down. As indicated in the STP, Unit 1, UFSAR, the pressurizer PORVs provide the safety-related means for RCS depressurization to achieve cold shutdown but, as indicated in the September 30, 2004, application, pressurizer spray is the primary method to depressurize the RCS specified in the STP emergency operating procedure. Depressurization may be performed with a PORV if pressurizer spray is unavailable or not effective.

At the present time, SR 4.4.4.2 requires that PORVs be subjected to an operability test, every 92 days, by operating the valve through one complete cycle of full travel unless (1) one block valve has been closed for reasons of PORV inoperability due to causes other than seat leakage (ACTION b. of TS 3.4.4) or (2) both block valves have been closed for reasons of PORV inoperability due to causes other than seat leakage (ACTION c. of TS 3.4.4). The licensee's proposed change to SR 4.4.4.2 would expand the range of conditions under which quarterly testing of block valves for the PORVs would be unnecessary to include any situation where a block valve is closed due to any Action in TS 3.4.4, which includes cases where the PORV block valve has been closed due to excessive PORV seat leakage.

As noted in the licensee's September 30, 2004, application, when a PORV block valve has been closed due to PORV seat leakage, and the block valve is subsequently reopened, momentary opening of the PORV has been noted. This observed PORV behavior is consistent with the Westinghouse Bases for SR 3.4.11.1, in TSTF-284, Revision 3, which states, "Opening the block valve in this condition [the block valve having been closed due to inoperable PORV] increases the risk of an unisolatable leak from the RCS since the PORV is already inoperable." Momentary opening of the PORV could be a precursor to an unisolatable leak in the RCS should the block valve fail to close.

In conclusion, the NRC staff considers the quarterly testing of the PORV block valve to be unnecessary, if the block valve has been closed due to an inoperable PORV. The additional assurance of block valve operability, gained from the quarterly test, is outweighed by the risk associated with the development of an unisolatable leak in the RCS. Accordingly, the provision of TSTF-284, Revision 3, which allows the extension of the range of circumstances under which the quarterly testing of the PORV block valve is not required to any of the Actions of TS 3.4.4, is acceptable as a change to STP, Unit 1, TS 4.4.4.2.

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 changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. 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 amendments involve no significant hazards consideration, and there has been no public comment on such finding published October 26, 2004 (69 FR 62477). Accordingly, the amendments meet 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 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.

Principal Contributor: D. Jaffe

Date: December 28, 2004

South Texas Project, Units 1 & 2

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November 2004

South Texas Project, Units 1 & 2

-2-

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