October 7, 1994

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TBergman (2)	TCollins
EPeyton	JWermiel

Mr. C. Lance Terry
Group Vice President, Nuclear
TU Electric
400 North Olive Street, L.B. 81
Dallas, Texas 75201

Dear Mr. Terry:

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2 - AMENDMENT NOS. 30 AND 15 TO FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89 (TAC NOS. M88357 AND M88358)

The Commission has issued the enclosed Amendment Nos. 30 and 15 to Facility Operating License Nos. NPF-87 and NPF-89 for the Comanche Peak Steam Electric Station, Units 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application dated November 15, 1993.

The amendments revise the Comanche Peak Steam Electric Station, Units 1 and 2 Technical Specifications to increase the maximum permitted power at which the post-refueling power ascension reactor coolant system flow verification can be performed.

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

Sincerely,

Original signed by:

Thomas A. Bergman, Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-445
and 50-446

Enclosures:
1. Amendment No.30 to NPF-87
2. Amendment No.15 to NPF-89
3. Safety Evaluation

cc w/encls: See next page
*See previous concurrence

OFFICE	PDIV-2/LA	PDIV-1/PM	OGC*	SRXB*	HICB*	PDIV-1/D
NAME	EPeyton	TBergman:mk	MYoung	TCollins	JWermiel	WBeckner
DATE	10/6/94	10/6/94	10/03/94	08/03/94	08/08/94	10/6/94

OFFICIAL RECORD COPY/ FILENAME: CP88357.AMD

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

October 7, 1994

Mr. C. Lance Terry
Group Vice President, Nuclear
TU Electric
400 North Olive Street, L.B. 81
Dallas, Texas 75201

Dear Mr. Terry:

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2 - AMENDMENT NOS. 30 AND 15 TO FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89 (TAC NOS. M88357 AND M88358)

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cc w/encls: See next page

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Granbury, Texas 76048

Regional Administrator, Region IV
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Control
Texas Department of Health
1100 West 49th Street
Austin, Texas 78756

Honorable Dale McPherson
County Judge
P. O. Box 851
Glen Rose, Texas 76043

Office of the Governor
ATTN: Susan Rieff, Director
Environmental Policy
P. O. Box 12428
Austin, Texas 78711

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

TEXAS UTILITIES ELECTRIC COMPANY

COMANCHE PEAK STEAM ELECTRIC STATION, UNIT 1

DOCKET NO. 50-445

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.30
License No. NPF-87

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Texas Utilities Electric Company (TU Electric, the licensee) dated November 15, 1993, 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.

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-87 is hereby amended to read as follows:

2. Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No.30 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated in the license. The licensee 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, to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

William D. Beckner, Director
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 7, 1994

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

TEXAS UTILITIES ELECTRIC COMPANY

COMANCHE PEAK STEAM ELECTRIC STATION, UNIT 2

DOCKET NO. 50-446

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 15
License No. NPF-89

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Texas Utilities Electric Company (TU Electric, the licensee) dated November 15, 1993, 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.

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-89 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 15, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. TU Electric shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance, to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

William D. Beckner, Director
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 7, 1994

ATTACHMENT TO LICENSE AMENDMENT NOS.30 AND 15

FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89

DOCKET NOS. 50-445 AND 50-446

Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by Amendment number and contains a marginal line indicating the area of change. The corresponding overleaf page is also provided to maintain document completeness.

REMOVE	INSERT
3/4 2-12	3/4 2-12

SURVEILLANCE REQUIREMENTS

4.2.4.1 The QUADRANT POWER TILT RATIO shall be determined to be within the limit above 50% of RATED THERMAL POWER by:

a. Calculating the ratio at least once per 7 days when the alarm is OPERABLE, and

b. Calculating the ratio at least once per 12 hours during steady-state operation when the alarm is inoperable.

4.2.4.2 The QUADRANT POWER TILT RATIO shall be determined to be within the limit when above 75% of RATED THERMAL POWER with one Power Range channel inoperable by using the movable incore detectors to confirm indicated QUADRANT POWER TILT RATIO at least once per 12 hours by either:

a. Using the four pairs of symmetric thimble locations or

b. Using the Movable Incore Detection System to monitor the QUADRANT POWER TILT RATIO.

POWER DISTRIBUTION LIMITS

3/4.2.5 DNB PARAMETERS

LIMITING CONDITION FOR OPERATION

3.2.5 The following DNB-related parameters shall be maintained within the stated limits:

a. Indicated Reactor Coolant System $T_{avg} \leq 592°F$

b. Indicated Pressurizer Pressure $\geq$ 2219 psig*

c. Indicated Reactor Coolant System (RCS) Flow $\geq$ 403,400 gpm** for Unit 1
$\geq$ 395,200 gpm** for Unit 2

APPLICABILITY: MODE 1.

ACTION:

With any of the above parameters exceeding its limit, restore the parameter to within its limit within 2 hours or reduce THERMAL POWER to less than 5% of RATED THERMAL POWER within the next 4 hours.

SURVEILLANCE REQUIREMENTS

4.2.5.1 Each of the above parameters shall be verified to be within its limits at least once per 12 hours.

4.2.5.2 The RCS total flow rate shall be verified to be within its limits at least once per 31 days by plant computer indication or measurement of the RCS elbow tap differential pressure transmitters' output voltage.

4.2.5.3 The RCS loop flow rate indicators shall be subjected to a CHANNEL CALIBRATION at least once per 18 months. The channels shall be normalized based on the RCS flow rate determination of Surveillance Requirement 4.2.5.4.

4.2.5.4 The RCS total flow rate shall be determined by precision heat balance measurement after each fuel loading and prior to operation above 85% of RATED THERMAL POWER. The feedwater pressure and temperature, the main steam pressure, and feedwater flow differential pressure instruments shall be calibrated within 90 days of performing the calorimetric flow measurement.

*Limit not applicable during either a THERMAL POWER ramp in excess of 5% of RATED THERMAL POWER per minute or a THERMAL POWER step in excess of 10% of RATED THERMAL POWER.

**Includes a 1.8% flow measurement uncertainty.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 30 AND 15 TO

FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89

TEXAS UTILITIES ELECTRIC COMPANY

COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2

DOCKET NOS. 50-445 AND 50-446

1.0 INTRODUCTION

By application dated November 15, 1993, Texas Utilities Electric Company (TU Electric/the licensee) requested changes to the Technical Specifications (Appendix A to Facility Operating License Nos. NPF-87 and NPF-89) for the Comanche Peak Steam Electric Station (CPSES), Units 1 and 2. The proposed changes would revise the technical specifications (TSs) by increasing the maximum permitted power at which the post-refueling power ascension reactor coolant system (RCS) flow verification can be performed.

2.0 BACKGROUND

The TSs require that reactor coolant system flow be measured and an incore-excore detector calibration be performed during the power ascension following each refueling outage. Surveillance Requirement (SR) 4.2.5.4 of the TS currently requires that a RCS flow verification by precision heat balance measurement be performed at a power plateau below 75 percent rated thermal power (RTP). Table 4.3-1, note (6), requires an incore-excore detector calibration be performed at a power plateau above 75 percent RTP. These tests therefore currently require two power plateaus during the post-refueling power ascension, potentially within a few percent RTP of one another.

The licensee proposes to revise SR 4.2.5.4 to require that the post-refueling precision heat balance RCS flow rate measurement be performed prior to reaching 85 percent RTP. This would allow a single power plateau, between 75 percent and 85 percent rated thermal power, to be used to conduct both the RCS flow verification and the incore-excore detector calibration.

3.0 EVALUATION

The purpose of measuring reactor coolant system flow rate after a refueling outage is to ensure that RCS flow rate is within its analyzed values for operation at up to 100 percent RTP. This measurement ensures that activities during the refueling, such as plugging steam generator tubes and installing new fuel, have not adversely affected RCS flow rate to below its acceptance

criteria. The measurement is performed below 100 percent rated thermal power to provide margin to departure from nucleate boiling (DNB) in the event that RCS flow is found to be less than required. The effect of the requested change is to reduce the available margin to DNB at the power level the test is conducted at since the licensee is proposing to perform the flow verification measurement at a higher power level.

The licensee performed an analysis, using NRC approved methodologies, to determine if any safety limits would be exceeded by performing the RCS flow verification test at 85 percent RTP instead of 75 percent RTP. This analysis evaluated the loss of forced RCS flow event, which is normally the most limiting event for DNB acceptance criteria. The key assumptions in the analysis included: 1) measured flow was 20 percent less than expected flow, which is verified by a RCS elbow tap differential pressure measurement prior to entering MODE 1 following the refueling outage; 2) power dependent enthalpy rise peaking factor ($F_{\Delta H}$) has been verified to be within the limits of Technical Specification 3.2.3; and 3) consideration of uncertainties on pressurizer pressure and RCS temperature. The licensee's analysis demonstrated that the DNB limit will not be exceeded if the initial power level is 85 percent RTP or less, with a 20 percent reduction in RCS flow. In addition to the administrative and technical specification requirements noted above that were taken into account in the analysis, the licensee also administratively limits the trip setpoint of the power range neutron flux - high reactor trip function. This reduced setpoint, typically set at 90 percent RTP, is maintained until all important parameters, including RCS flow, are verified to be within analyzed values.

The staff has evaluated the information submitted by the licensee and concluded that the RCS flow verification test can be performed at up to 85 percent RTP and still have sufficient margin to DNB. The analysis was performed with conservative assumptions and demonstrated that the DNB limit would not be exceeded under those assumptions. Furthermore, the licensee has administrative controls in place, as described above, that provide additional margin to DNB. Therefore, the proposed change is acceptable.

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 surveillance requirement. 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

(59 FR 17606). 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: T. Bergman

Date: October 7, 1994