

September 13, 1994

Docket Nos. 50-445
and 50-446

Mr. William J. Cahill, Jr.
Group Vice President, Nuclear
TU Electric
400 North Olive Street, L.B. 81
Dallas, Texas 75201

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Dear Mr. Cahill:

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2 - AMENDMENT
NOS. 27 AND 13 TO FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89
(TAC NOS. M89417 AND M89418)

The Commission has issued the enclosed Amendment Nos. 27 and 13 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 (TS) in response to your application dated April 22, 1994.

The amendments change the technical specifications to allow an increase in the maximum allowable fuel enrichment from 4.3 weight percent to 5.0 weight percent enriched fuel.

A copy of our related Safety Evaluation is enclosed. Also enclosed is a copy of the Notice of Issuance which has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by:

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

Enclosures:

1. Amendment No. 27 to NPF-87
2. Amendment No. 13 to NPF-89
3. Safety Evaluation
4. Notice of Issuance

cc w/enclosures:
See next page

OFFICE	PDIV-2/LA	PDIV-1/PM	OGC	PDIV-1/PM	SRXB	PRPB
NAME	EPeyton	TBergman	WBeckner	WBeckner	TCollins	JCunningham
DATE	8/11/94	8/13/94	8/12/94	9/12/94	8/19/94	8/11/94

Document Name: CP89417.AMD

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

September 13, 1994

Docket Nos. 50-445
and 50-446

Mr. William J. Cahill, Jr.
Group Vice President, Nuclear
TU Electric
400 North Olive Street, L.B. 81
Dallas, Texas 75201

Dear Mr. Cahill:

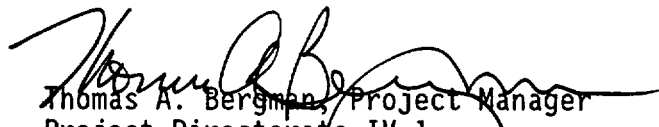
SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2 - AMENDMENT
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1. Amendment No. 27 to NPF-87
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3. Safety Evaluation
4. Notice of Issuance

cc w/enclosures:
See next page

Mr. William J. Cahill, Jr.
TU Electric Company

Comanche Peak, Units 1 and 2

cc:

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U.S. Nuclear Regulatory Commission
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Texas Department of Health
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Austin, Texas 78756

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



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. 27
License No. NPF-87

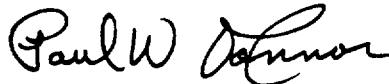
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Texas Utilities Electric Company (TU Electric, the licensee) dated April 22, 1994, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the 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. 27, 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 prior to initial receipt of fuel enriched to greater than 4.3 weight percent.

FOR THE NUCLEAR REGULATORY COMMISSION



for 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: September 13, 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.13
License No. NPF-89

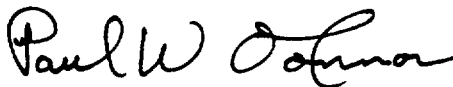
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Texas Utilities Electric Company (TU Electric, the licensee) dated April 22, 1994, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the 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. 13, 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 prior to initial receipt of fuel enriched to greater than 4.3 weight percent.

FOR THE NUCLEAR REGULATORY COMMISSION

for 
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: September 13, 1994

ATTACHMENT TO LICENSE AMENDMENT NOS. 27 AND 13
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

5-5

INSERT

5-5

DESIGN FEATURES

DESIGN PRESSURE AND TEMPERATURE

5.2.2 The containment building is designed and shall be maintained for a maximum internal pressure of 50 psig and a temperature of 280°F.

5.3 REACTOR CORE

FUEL ASSEMBLIES

5.3.1 The core shall contain 193 fuel assemblies with each fuel assembly containing 264 fuel rods clad with Zircaloy-4 except that limited substitution of fuel rods by filler rods (consisting of Zircaloy-4 or stainless steel) may be made if justified by a cycle specific reload analysis. Each fuel rod shall have a nominal active fuel length of 144 inches. The initial core loading shall have a maximum enrichment not to exceed 3.15 weight percent U-235. Reload fuel shall be similar in physical design to the initial core loading and shall have a maximum enrichment not to exceed 5.0 weight percent U-235.

CONTROL ROD ASSEMBLIES

5.3.2 The core shall contain 53 full-length control rod assemblies. The full-length control rod assemblies shall contain a nominal 142 inches of absorber material. The nominal values of absorber material shall be 80% silver, 15% indium, and 5% cadmium. All control rods shall be clad with stainless steel tubing and may include clad surface treatment for wear mitigation.

5.4 REACTOR COOLANT SYSTEM

DESIGN PRESSURE AND TEMPERATURE

5.4.1 The Reactor Coolant System is designed and shall be maintained:

- a. In accordance with the Code requirements specified in Section 5.2 of the FSAR, with allowance for normal degradation pursuant to the applicable Surveillance Requirements,
- b. For a pressure of 2,485 psig, and
- c. For a temperature of 650°F, except for the pressurizer which is 680°F.

DESIGN FEATURES

VOLUME

5.4.2 The total water and steam volume of the Reactor Coolant System is $12,135 \pm 100$ cubic feet at a nominal T_{avg} of 589.5°F.

5.5 METEOROLOGICAL TOWER LOCATION

5.5.1 The primary meteorological tower shall be located as shown on Figure 5.1-1.

5.6 FUEL STORAGE

CRITICALITY

5.6.1.1 The spent fuel storage racks are designed and shall be maintained with:

- a. A k_{eff} equivalent to less than or equal to 0.95 when flooded with unborated water, which includes a conservative allowance for uncertainties as described in Section 4.3 of the FSAR, and
- b. A nominal 16 inch center-to-center distance between fuel assemblies placed in the storage racks.

5.6.1.2 The k_{eff} for new fuel for the first core loading stored dry in the spent fuel storage racks shall not exceed 0.98 when aqueous foam moderation is assumed.

DRAINAGE

5.6.2 The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 854 feet.

CAPACITY

5.6.3 The two spent fuel storage pools are designed and shall be maintained with a storage capacity limited to no more than 1116 fuel assemblies.

5.7 COMPONENT CYCLIC OR TRANSIENT LIMIT

5.7.1 The components identified in Table 5.7-1 are designed and shall be maintained within the cyclic or transient limits of Table 5.7-1.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 27 AND 13 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 April 22, 1994, 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, Units 1 and 2 (CPSES). The proposed changes would increase the maximum Uranium-235 enrichment for reload fuel assemblies to 5.0 weight percent from the current 4.3 weight percent Uranium-235 in Section 5.3.1 of the CPSES Technical Specifications (TS).

2.0 BACKGROUND

In support of the requested increase to 5.0 weight percent U-235, the licensee resubmitted analyses submitted with a previous license amendment application. The staff granted the request in Amendment Nos. 17 and 3, to the Unit 1 and 2 licenses, respectively, which authorized use of fuel enriched to 4.3 weight percent U-235. The analyses submitted to support those amendments were based on a fuel enrichment of 5.0 weight percent U-235.

In a July 6, 1993, safety evaluation the staff reviewed the results of the licensee's analysis to verify the acceptability of a 5.0 weight percent limit for fresh fuel, spent fuel and in-containment storage racks. The staff concluded that the licensee's proposal to use fuel enriched to 4.3 weight percent U-235 was conservative and acceptable because (1) the analyses provided by the licensee were performed with well established methodologies that were properly verified; (2) the licensee used conservative input assumptions in the analyses; (3) the analyses results met the NRC acceptance criteria with respect to $k(\text{eff})$, and the consequences of limiting accidents were acceptable; and (4) the proposed TS was consistent with the analyses provided.

The staff's conclusions regarding the acceptability of the licensee's analysis at 5.0 weight percent U-235 remain valid.

3.0 EVALUATION

The conclusions in the staff's July 6, 1993, safety evaluation were made on the basis of an assumed enrichment of 5.0 weight percent U-235, and are still valid. Therefore, the licensee's proposed change to allow use of fuel enriched to 5.0 weight percent 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

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact was published in the Federal Register on August 15, 1994 (59 FR 41800).

Accordingly, based upon the environmental assessment, the Commission has determined that issuance of these amendments will not have a significant effect on the quality of the human environment.

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: September 13, 1994

UNITED STATES NUCLEAR REGULATORY COMMISSION

TEXAS UTILITIES ELECTRIC COMPANY

DOCKET NOS. 50-445 AND 50-446

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 27 and 13 to Facility Operating License Nos. NPF-87 and NPF-89 issued to Texas Utilities Electric Company which consisted of changes to the technical specifications related to the operation of the Comanche Peak Steam Electric Station, Units 1 and 2, located in Somervell County, Texas.

The amendments are effective as of the date of issuance.

The amendments revised Technical Specification 5.3.1 to permit the use of fuel with maximum enrichments of 5.0 weight percent Uranium 235.

The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments.

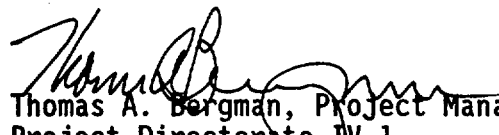
Notice of Consideration of Issuance of Amendments and Opportunity for Hearing in connection with this action was published in the FEDERAL REGISTER on August 1, 1994 (59 FR 38991). No request for a hearing or petition for leave to intervene was filed following this notice.

The Commission has prepared an Environmental Assessment related to the action and has determined not to prepare an environmental impact statement. Based upon the environmental assessment, the Commission has concluded that the issuance of these amendments will not have a significant effect on the quality of the human environment.

For further details with respect to the action see (1) the application for amendments dated April 22, 1994, (2) Amendment No. 27 to License No. NPF-87, Amendment No. 13 to License No. NPF-89, and (3) the Commission's related Safety Evaluation and Environmental Assessment. All of these items are available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C., and at the local public document room located at the University of Texas at Arlington Library, Government Publications/Maps, 701 South Cooper, P.O. Box 19497, Arlington, Texas 76019. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Reactor Projects III/IV.

Dated at Rockville, Maryland this 13th day of September 1994.

FOR THE NUCLEAR REGULATORY COMMISSION


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