



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. 46  
License No. NPF-87

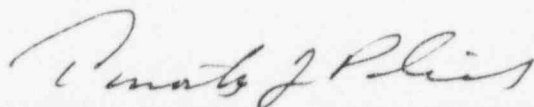
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Texas Utilities Electric Company (TU Electric, the licensee) dated December 30, 1994, as supplemented by letters dated July 28, (TXX-95187); September 14, (TXX-95235); and November 29, 1995, (TXX-95299); and January 2, 1996, (TXX-96-003), 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. 46, 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.

FOR THE NUCLEAR REGULATORY COMMISSION



Timothy J. Polich, Project Manager  
Project Directorate IV-1  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: February 9, 1996



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. 32  
License No. NPF-89

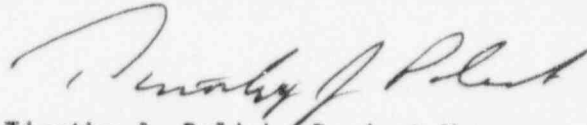
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Texas Utilities Electric Company (TU Electric, the licensee) dated December 30, 1994, as supplemented by letters dated July 28, (TXX-95187); September 14, (TXX-95235); and November 29, 1995, (TXX-95299); and January 2, 1996, (TXX-96-003), 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. 32, 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.

FOR THE NUCLEAR REGULATORY COMMISSION



Timothy J. Polich, Project Manager  
Project Directorate IV-1  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: February 9, 1996

ATTACHMENT TO LICENSE AMENDMENT NOS. 46 AND 32

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

DOCKET NOS. 50-445 AND 50-446

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain marginal lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

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-  
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## 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  $589.5^{\circ}F$ .

### 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

#### 5.6.1 CRITICALITY

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

- a. Fuel assemblies having a maximum U-235 enrichment of 5.0 weight percent;
- b.  $K_{eff} \leq 0.95$  if fully flooded with unborated water, which includes an allowance for uncertainties as described in Section 4.3 of the FSAR;
- c. A nominal 16 inch center-to-center distance between fuel assemblies placed in the low density fuel storage racks;
- d. A nominal 9 inch center to center distance between fuel storage locations in the high density fuel storage racks with storage restrictions specified below;
- e. All new or partially spent fuel assemblies are allowed unrestricted storage in the low density fuel storage racks and restricted storage in an expanded checkerboard (1 out of 4) pattern in the high density fuel storage racks; and
- f. New or partially spent fuel assemblies which meet the minimum burnup-initial enrichment requirements of Figure 5.6-1 are allowed restricted storage in a checkerboard (2 out of 4) pattern in the high density fuel storage racks.

5.6.1.2 The new fuel storage racks are designed and shall be maintained with:

- a. Fuel assemblies having a maximum U-235 enrichment of 5.0 weight percent;
- b.  $K_{eff} \leq 0.95$  if fully flooded with unborated water, which includes an allowance for uncertainties as described in Section 4.3 of the FSAR;
- c.  $K_{eff} \leq 0.98$  if moderated by aqueous foam, which includes an allowance for uncertainties as described in Section 4.3 of the FSAR; and
- d. A nominal 21 inch center to center distance between fuel assemblies placed in the new fuel storage racks.

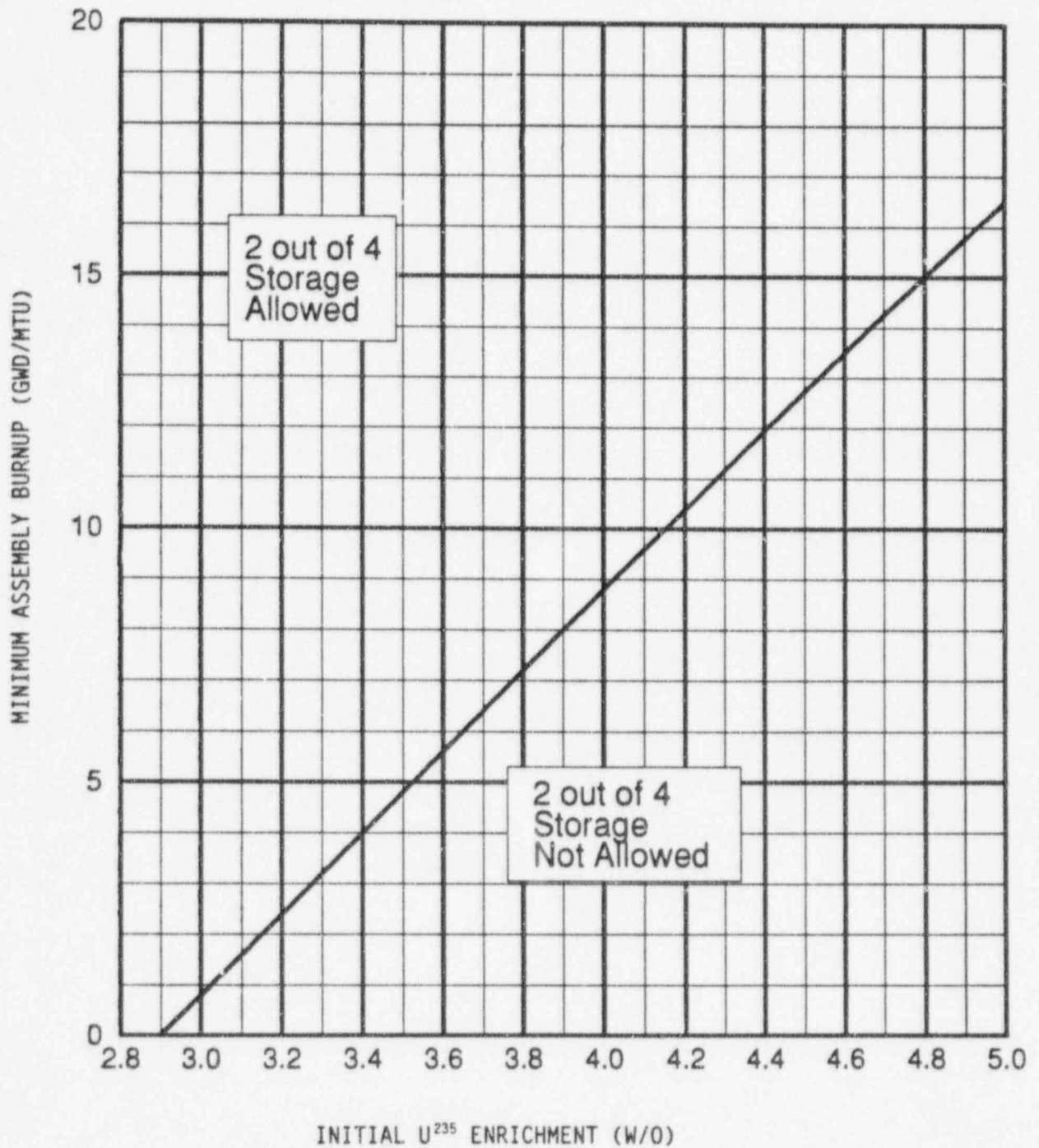


FIGURE 5.6-1

MINIMUM BURNUP VS INITIAL U-235 ENRICHMENT  
FOR HIGH DENSITY (2/4) SPENT FUEL STORAGE RACKS

## DESIGN FEATURES

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### 5.6.2 DRAINAGE

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

### 5.6.3 CAPACITY

The two spent fuel storage pools are designed and shall be maintained with a storage capacity limited to no more than 1291 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.

TABLE 5.7-1

COMPONENT CYCLIC OR TRANSIENT LIMITS

<u>COMPONENT</u>	<u>CYCLIC OR TRANSIENT LIMIT</u>	<u>DESIGN CYCLE OR TRANSIENT</u>
Reactor Coolant System	200 heatup cycles at $\leq 100^{\circ}\text{F/h}$ and 200 cooldown cycles at $\leq 100^{\circ}\text{F/h}$ .	Heatup cycle - $T_{\text{avg}}$ from $\leq 200^{\circ}\text{F}$ to $\geq 550^{\circ}\text{F}$ . Cooldown cycle - $T_{\text{avg}}$ from $\geq 550^{\circ}\text{F}$ to $\leq 200^{\circ}\text{F}$ .
	200 pressurizer cooldown cycles at $\leq 200^{\circ}\text{F/h}$ .	Pressurizer cooldown cycle temperatures from $\geq 650^{\circ}\text{F}$ to $\leq 200^{\circ}\text{F}$ .
	80 loss of load cycles, without immediate Turbine or Reactor trip.	$\geq 15\%$ of RATED THERMAL POWER to 0% of RATED THERMAL POWER.
	40 cycles of loss-of-offsite A.C. electrical power.	Loss-of-offsite A.C. electrical ESF Electrical System.
	80 cycles of loss of flow in one reactor coolant loop.	Loss of only one reactor coolant pump.
	400 Reactor trip cycles.	100% to 0% of RATED THERMAL POWER.
	10 auxiliary spray actuation cycles.	Spray water temperature differential $> 320^{\circ}\text{F}$ , but $\leq 625^{\circ}\text{F}$ .
	200 leak tests.	Pressurized to $\geq 2485$ psig.
	10 hydrostatic pressure tests.	Pressurized to $\geq 3107$ psig.
	Secondary Coolant System	1 steam line break.
10 hydrostatic pressure tests.		Pressurized to $\geq 1481$ psig.