



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. 52
License No. NPF-87

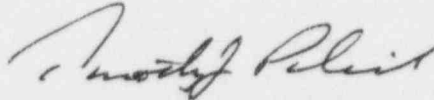
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Texas Utilities Electric Company (TU Electric, the licensee) dated July 31, 1996 (TXX-96433), complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), 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. 52, 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: September 30, 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. 38
License No. NPF-89

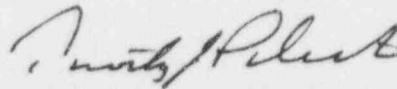
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Texas Utilities Electric Company (TU Electric, the licensee) dated July 31, 1996 (TXX-96433), complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), 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. 38, 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: September 30, 1996

ATTACHMENT TO LICENSE AMENDMENT NOS. 32 AND 38

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.

REMOVE

2-2
2-9
2-10
2-11
6-11

INSERT

2-2
2-9
2-10
2-11
6-11

2.0 SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS

2.1 SAFETY LIMITS

REACTOR CORE

2.1.1 The combination of THERMAL POWER, pressurizer pressure, and the highest operating loop coolant temperature (T_{avg}) shall not exceed the limits shown in Figure 2.1-1.

APPLICABILITY: MODES 1 and 2.

ACTION:

Whenever the point defined by the combination of the highest operating loop average temperature and THERMAL POWER has exceeded the appropriate pressurizer pressure line, be in HOT STANDBY within 1 hour, and comply with the requirements of Specification 6.7.1.

REACTOR COOLANT SYSTEM PRESSURE

2.1.2 The Reactor Coolant System pressure shall not exceed 2735 psig.

APPLICABILITY: MODES 1, 2, 3, 4, and 5.

ACTION:

MODES 1 and 2:

Whenever the Reactor Coolant System pressure has exceeded 2735 psig, be in HOT STANDBY with the Reactor Coolant System pressure within its limit within 1 hour, and comply with the requirements of Specification 6.7.1.

MODES 3, 4 and 5:

Whenever the Reactor Coolant System pressure has exceeded 2735 psig, reduce the Reactor Coolant System pressure to within its limit within 5 minutes, and comply with the requirements of Specification 6.7.1.

Unit 1 Reactor Core Safety Limits

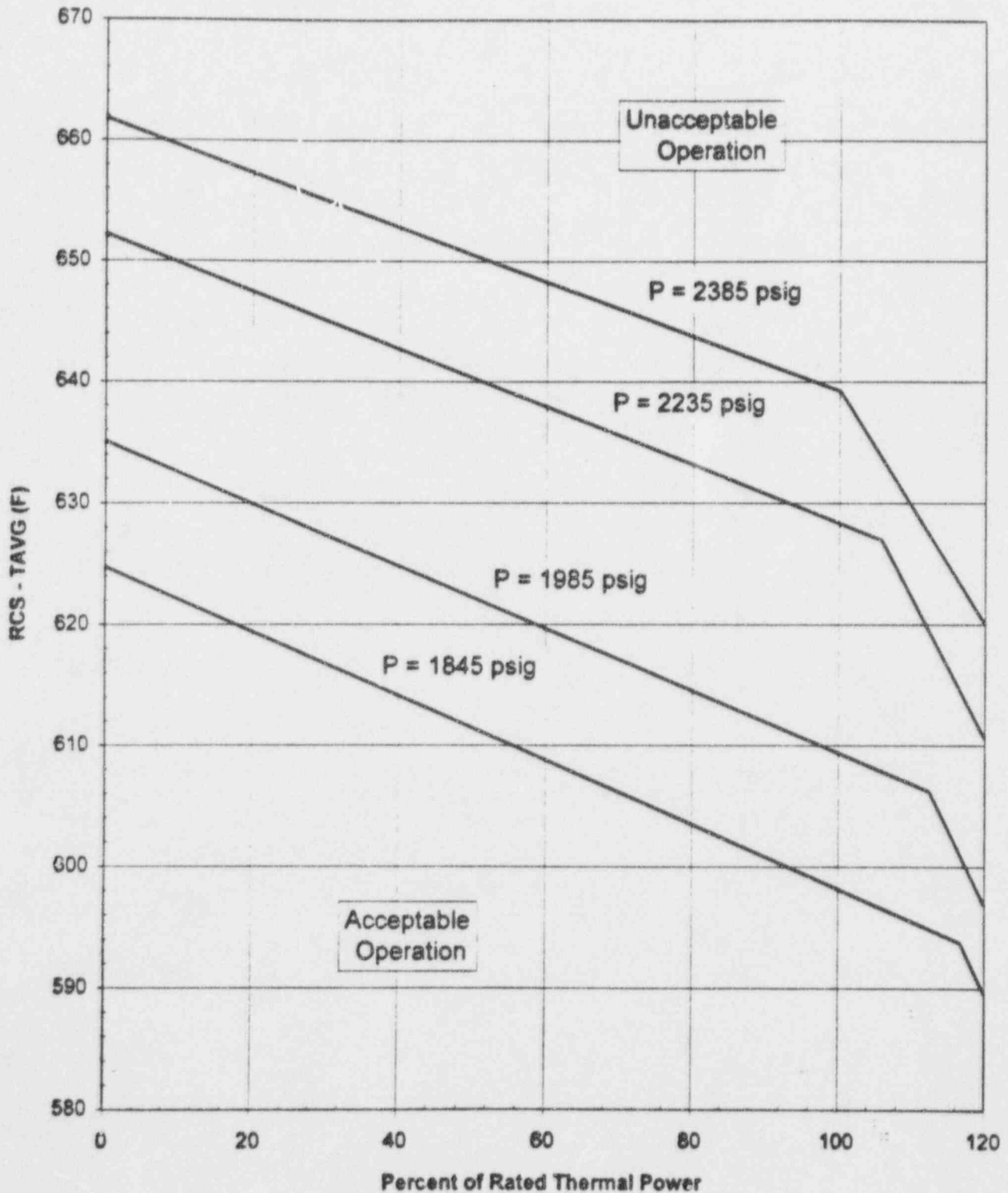


FIGURE 2.1-1a

UNIT 1 REACTOR CORE SAFETY LIMITS

TABLE 2.2 1 (Continued)
TABLE NOTATIONS

NOTE 1: Overtemperature N-16

$$N = K_1 - K_2 \left[\frac{1 + \tau_1 s}{1 + \tau_2 s} T_c - T_c^o \right] + K_3 (P - P^1) - f_1 (\Delta q)$$

Where:	N	= Measured N-16 Power by ion chambers,
	T_c	= Cold leg temperature, °F,
	T_c^o	= 560.5°F for Unit 1, 560.8°F for Unit 2 - Reference T_c at RATED THERMAL POWER,
	K_1	= 1.150,
	K_2	= 0.0173/°F for Unit 1 0.0138/°F for Unit 2
	$\frac{1 + \tau_1 s}{1 + \tau_2 s}$	= The function generated by the lead-lag controller for T_c dynamic compensation,
	τ_1, τ_2	= Time constants utilized in the lead-lag controller for T_c , $\tau_1 \geq 10$ s, and $\tau_2 \leq 3$ s,
	K_3	= 0.000890/psig for Unit 1 0.000720/psig for Unit 2

TABLE 2.2-1 (Continued)

TABLE NOTATIONS (Continued)

NOTE 1: (Continued)

- P = Pressurizer pressure, psig,
P¹ ≥ 2235 psig (Nominal RCS operating pressure),
S = Laplace transform operator, s⁻¹,

and $f_1(\Delta q)$ is a function of the indicated difference between top and bottom halves of detectors of the power-range neutron ion chambers; with gains to be selected based on measured instrument response during plant STARTUP tests such that:

For Unit 1

- (i) for $q_t - q_b$ between -65% and +4.6%, $f_1(\Delta q) = 0$, where q_t and q_b are percent RATED THERMAL POWER in the top and bottom halves of the core respectively, and $q_t + q_b$ is total THERMAL POWER in percent of RATED THERMAL POWER, |
(ii) for each percent that the magnitude of $q_t - q_b$ exceeds -65%, the N-16 Trip Setpoint shall be automatically reduced by 0.0%* of its value at RATED THERMAL POWER, and |
(iii) for each percent that the magnitude of $q_t - q_b$ exceeds +4.6%, the N-16 Trip Setpoint shall be automatically reduced by 3.04% of its value at RATED THERMAL POWER. |

*No setpoint reduction is required for the span of the ΔI indication. |

TABLE 2.2-1 (Continued)
TABLE NOTATIONS (Continued)

NOTE 1: (Continued)

For Unit 2

- (i) for $q_t - q_b$ between -65% and +2.5%, $f_1(\Delta q) = 0$, where q_t and q_b are percent RATED THERMAL POWER in the top and bottom halves of the core respectively, and $q_t + q_b$ is total THERMAL POWER in percent of RATED THERMAL POWER,
- (ii) for each percent that the magnitude of $q_t - q_b$ exceeds -65%, the N-16 Trip Setpoint shall be automatically reduced by 1.86% of its value at RATED THERMAL POWER, and
- (iii) for each percent that the magnitude of $q_t - q_b$ exceeds +2.5%, the N-16 Trip Setpoint shall be automatically reduced by 1.65% of its value at RATED THERMAL POWER.

NOTE 2: The channel's maximum Trip Setpoint shall not exceed its computed Trip Setpoint by more than 3.64% of span for Unit 1 or 1.88% of span for Unit 2.

ADMINISTRATIVE CONTROLS

CORE OPERATING LIMITS REPORT (Continued)

Reference 18) is for Unit 2 only:

- 18). WCAP-9220-P-A, Rev. 1, "WESTINGHOUSE ECCS EVALUATION MODEL- 1981 Version", February 1982 (W Proprietary).
- 19). RXE-94-001-A, "Safety Analysis of Postulated Inadvertent Boron Dilution Event in Modes 3, 4, and 5," February 1994. (Methodology for Specifications 3/4.1.1.1, 3/4.1.1.2, 3/4.1.2.2, 3/4.1.2.4, and 3/4.1.2.6 - Shutdown Margin.)
- 20.) RXE-95-001-P, "Small Break Loss of Coolant Accident Analysis Methodology," December 1995.

6.9.1.6c The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as SHUTDOWN MARGIN, and transient and accident analysis limits) of the safety analysis are met.

6.9.1.6d The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

SPECIAL REPORTS

6.9.2 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, special reports shall be submitted to the Regional Administrator of the Regional Office of the NRC within the time period specified for each report.

6.10 NOT USED

6.11 NOT USED

6.12 HIGH RADIATION AREA

6.12.1 Pursuant to paragraph 10 CFR 20.1601(c), in lieu of the "control device" or "alarm signal" required by paragraph 10 CFR 20.1601(a), each high radiation area, as defined in 10 CFR 20, in which the intensity of radiation is equal to or less than 1000 mrem/h at 30 cm (12 in.) from the radiation source or from any surface which the radiation penetrates shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit (RWP). Individuals qualified in radiation protection procedures (e.g., Radiation Protection Technician) or personnel continuously escorted by such individuals may be exempt from the RWP issuance requirement during the performance of their assigned duties in high radiation areas with dose rates equal to or less than 1000 mrem/h, provided they are otherwise following plant radiation protection procedures for entry into such high radiation areas. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

HIGH RADIATION AREA (Continued)

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area; or
- b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and individuals have been made knowledgeable of them; or
- c. An individual qualified in radiation protection procedures with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the RWP.

6.12.2 In addition to the requirements of Specification 6.12.1, areas accessible to individuals with radiation levels greater than 1000 mrem/h at 30 cm (12 in.) but less than 500 rads in one hour at one meter from the radiation source or from any surface which the radiation penetrates shall be provided with locked doors to prevent unauthorized entry, and the keys shall be maintained under the administrative control of the Shift Manager on duty and/or radiation protection supervision. Doors shall remain locked except during periods of access by individuals under an approved RWP which shall specify the dose rate levels in the immediate work areas and the maximum allowable stay time for individuals in that area. In lieu of the stay time specification of the RWP, direct or remote (such as closed circuit TV cameras) continuous surveillance may be made by individuals qualified in radiation protection procedures to provide positive exposure control over the activities being performed within the area.

For isolated high radiation areas accessible to individuals with radiation levels of greater than 1000 mrem/h at 30 cm but less than 500 rads in one hour at one meter that are located within large areas, such as PWR containment, where no enclosure exists for purposes of locking, and where no enclosure can be reasonably constructed around the isolated area, that isolated area shall be barricaded, conspicuously posted, and a flashing light shall be activated as a warning device.

6.13 NOT USED

6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)

Changes to the ODCM:

- a. Shall be documented and records of reviews performed shall be retained for the duration of the unit Operating License. This documentation shall contain:
 - 1) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and