

December 23, 1993

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. 22 AND 8 TO FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89
(TAC NO. M84915)

The Commission has issued the enclosed Amendment Nos. 22 and 8 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 September 10, 1992, for CPSES Unit 1. By letter dated March 17, 1993, you expanded the application to include CPSES Unit 2.

The amendments change the "Z" value for the reactor coolant pump (RCP) undervoltage relay setpoint and "allowable value" for the RCP underfrequency relay setpoints in Technical Specification Table 2.2-1.

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-2
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 22 to NPF-87
2. Amendment No. 8 to NPF-89
3. Safety Evaluation

cc w/enclosures:
See next page

OFFICE	PDIV-2/LA	PDIV-2/PM	OGC <i>ES</i>	PDIV-2/D	
NAME	<i>esp</i> EPeyton	<i>TB</i> TBergman	<i>R Bachmann</i>	<i>S</i> SBlack	
DATE	11/15/93	11/19/93	12/10/93	12/27/93	/ /

Document Name: b:\M84915.AMD

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Mr. William J. Cahill, Jr.

- 2 -

December 23, 1993

cc w/enclosures:

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Honorable Dale McPherson
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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. 22
License No. NPF-87

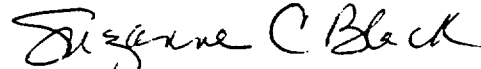
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Texas Utilities Electric Company (TU Electric, the licensee) dated September 10, 1992, as supplemented by letter dated March 17, 1993, complies with the standards and requirements of the Atomic 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. 22 , 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



Suzanne C. Black, Director
Project Directorate IV-2
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 23, 1993



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. 8
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 September 10, 1992, as supplemented by letter dated March 17, 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.

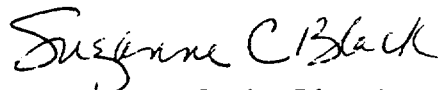
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-89 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 8, 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



Suzanne C. Black, Director
Project Directorate IV-2
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 23, 1993

ATTACHMENT TO LICENSE AMENDMENT NOS. 22 AND 8

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

DOCKET NOS. 50-445 AND 50-446

Revise Appendix A Technical Specifications by removing the page identified below and inserting the enclosed page. The revised page is identified by amendment number and contains marginal lines indicating the area of change. The corresponding overleaf page is also provided to maintain document completeness.

REMOVE

2-7

INSERT

2-7

TABLE 2.2-1 (Continued)
REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (S)	TRIP SETPOINT	ALLOWABLE VALUE
13. Steam Generator Water Level - Low-Low					
a. Unit 1	25.0	22.08	2.0	≥25.0% of narrow range instrument span	≥23.1 of narrow range instrument spa
b. Unit 2	35.4	22.2	2.0	≥35.4% of narrow range instrument span	≥33.4 of narrow range instrument span
14. Undervoltage - Reactor Coolant Pumps					
a. Unit 1	7.7	1.2	0	≥4830 volts-each bus	≥4753 volts-each bus
b. Unit 2	7.7	1.2	0	≥4830 volts-each bus	≥4753 volts-each bus
15. Underfrequency - Reactor Coolant Pumps					
a. Unit 1	4.4	0	0	≥57.2 Hz	≥57.06 Hz
b. Unit 2	4.4	0	0	≥57.2 Hz	≥57.06 Hz
16. Turbine Trip					
a. Low Trip System Pressure	N.A.	N.A.	N.A.	≥59 psig	≥46.6 psig
b. Turbine Stop Valve Closure	N.A.	N.A.	N.A.	≥1% open	≥1% open
17. Safety Injection Input from ESF	N.A.	N.A.	N.A.	N.A.	N.A

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

<u>FUNCTIONAL UNIT</u>	<u>TOTAL ALLOWANCE (TA)</u>	<u>Z</u>	<u>SENSOR ERROR (S)</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
18. Reactor Trip System Interlocks					
a. Intermediate Range Neutron Flux, P-6	N.A.	N.A.	N.A.	1×10^{-10} amps	$\geq 6 \times 10^{-11}$ amps
b. Low Power Reactor Trips Block, P-7					
1) P-10 input	N.A.	N.A.	N.A.	10% of RTP*	$\leq 12.7\%$ of RTP*
2) P-13 input	N.A.	N.A.	N.A.	10% RTP* Turbine First Stage Pressure Equivalent	$\leq 12.7\%$ RTP* Turbine First Stage Pressure Equivalent
c. Power Range Neutron Flux, P-8	N.A.	N.A.	N.A.	48% of RTP*	$\leq 50.7\%$ of RTP*
d. Power Range Neutron Flux, P-9	N.A.	N.A.	N.A.	$\leq 50\%$ of RTP*	$\leq 52.7\%$ of RTP*
e. Power Range Neutron Flux, P-10	N.A.	N.A.	N.A.	10% of RTP*	$\geq 7.3\%$ of RTP*
19. Reactor Trip Breakers	N.A.	N.A.	N.A.	N.A.	N.A.
20. Automatic Trip and Interlock Logic	N.A.	N.A.	N.A.	N.A.	N.A.

*RTP = RATED THERMAL POWER



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 22 AND 8 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 September 10, 1992, Texas Utilities Electric Company (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), Unit No. 1. By letter dated March 17, 1993, the application was expanded to include Unit 2. The proposed changes would revise the Comanche Peak Steam Electric Station Technical Specifications (TS) Table 2.2-1 for the reactor trip system instrumentation trip setpoints. The first change will increase the "Z" value for the reactor coolant pump (RCP) undervoltage (UV) relay trip setpoint, Item 14 of TS Table 2.2-1, from 0 to 1.2 and the second change will lower the "Allowable Value" of the RCP underfrequency (UF) relay trip setpoint, Item 15 of Table 2.2-1, from "greater than or equal to" 57.1 Hz to "greater than or equal to" 57.06 Hz.

The proposed change for the RCP UV relay will account for the uncertainties introduced by the potential transformer (PT) accuracy class error that was not included in the previous RCP UV relay trip setpoint calculations. The current allowable value of "greater than or equal to" 57.1 Hz of the RCP UF relay trip setpoint is too close to the trip setpoint of 57.2 Hz and the maintenance personnel at Comanche Peak experienced difficulties in setting the UF relay at or above 57.1 Hz, but below 57.2 Hz.

The RCP undervoltage and underfrequency relays have been provided to monitor the power supply to the RCP motors to prevent any unrecognized loss of the reactor cooling system on loss of all ac power to the RCPs. The RCP UV and UF relays are energized from the 6900 V RCP buses through 7200 V : 120 V potential transformers (PT ratio 60:1).

The current "Z" value for UV relay trip setpoint in TS Table 2.2-1, Item 14, and the "Allowable Value" of the UF relay trip setpoint, Item 15 of TS Table 2.2-1, are based on data in Westinghouse document WCAP-12123, Rev. 1, "Westinghouse Setpoint Methodology for Protection Systems Comanche Peak Unit 1". This document specifies a calibration allowance of +/- 1.4 percent of span for UV relay and a calibration allowance of +/- 0.7 percent of span for UF relay. These calibration allowances correspond to UV relay trip

setpoint between 80.08 V and 80.92 V and UF relay setpoint between 57.17 Hz and 57.23 Hz. The UV and UF trip settings are also specified in the Station documents E1-2400, "Protective Devices Settings Document" and E1-2700, "Precautions Limitations and Setpoint Document." E1-2400 specifies UV relay trip setpoint between 79.70 V and 81.70 V and UF relay trip setpoint between 57.1 Hz and 57.31 Hz. During a review of these documents to resolve these discrepancies, the licensee discovered that the PT accuracy class error had not been considered in the original setpoint calculations. In addition, the maintenance personnel indicated that they had experienced difficulty in adjusting the UF relay trip setpoint within the current band width.

2. EVALUATION

The licensee submitted a calculation, Calculation No. RXE-TA-CP1/0-027, Rev.1, covering the implications of the proposed changes. This calculation demonstrates that to account for the potential transformer accuracy class error the "Z" value for RCP UV relay trip setpoint should be increased from 0 to 1.2. With this change the nominal trip setpoint for the RCP UV relay will remain unchanged at 4830 V (i.e., at 70 percent of system nominal voltage of 6900 V). The safety analysis limit for RCP UV is 4692 V.

For the RCP UF relay trip setpoint the licensee proposed to increase the relay adjustment allowance from one percent of the span to two percent of the span. Calculation No. RXE-TA-CP1/0-027 indicates that with the proposed changes the nominal trip setpoint for the RCP UF relay will remain unchanged at 57.2 Hz (i.e., 95.33 percent of normal frequency 60 Hz). The calculation also indicates that with the proposed changes the minimum value of the RCP UF relay trip setpoint of 57.06 Hz will be above the upper bound of the safety analysis limit of 57.0 Hz. The calculation further demonstrates that with the proposed UV and UF changes, other parameters of Items 14 and 15 of TS Table 2.2-1 will remain unchanged.

The analysis the licensee submitted with the proposed changes indicates that the proposed changes will not alter the UV and UF relay trip setpoints or exceed the safety analysis limits or incorporate any physical change to UV and UF monitoring circuits. The licensee claims that the proposed changes will not alter the time sequence of events that could result in a decrease in reactor coolant system flow rates of Final Safety Analysis Report (FSAR) Table 15.3-1 nor will they alter the transient curves of departure from nucleate boiling ratio (DNBR) versus time, FSAR Figure 15.3-12A, and core flow during coastdown, FSAR Figure 15.3-9A.

We have reviewed the justification provided by the licensee and agree that the proposed changes do not alter the trip setpoints of the RCP UV and UF relays and will not endanger the reactor cooling system. The proposed changes will better represent the "Z" value of the UV relay trip setpoint and provide relief in the setting of the UF relays.

3.0 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.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change 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 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 (58 FR 19488). 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 amendment.

5.0 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: Subinoy Mazumdar, NRR

Date: December 23, 1993