Mr. C. Lance Terry
Group Vice President, Nuclear
TU Electric
Energy Plaza
1601 Bryan Street, 12th Floor
Dallas, TX 75201-3411

April 17, 1995

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2 - AMENDMENT NOS. 39 AND 25 TO FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89 (TAC NOS. M90210 AND M90211)

Dear Mr. Terry:

The Commission has issued the enclosed Amendment Nos. 39 and 25 to Facility Operating License Nos. NPF-87 and NPF-89 for the Comanche Peak Steam Electric Station (CPSES), Units 1 and 2. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated August 9, 1994 (LAR 94-013, TXX-94211).

The amendments change TS 2.2.1, "Reactor Trip System Instrumentation Setpoints," and 3/4.3.1, "Reactor Trip System Instrumentation." Also affected is Bases Section 2.2.1, "Reactor Trip System Instrumentation Setpoints." These changes delete the high negative neutron flux power range reactor trip function from the CPSES TSs based on analyses which demonstrate that the protection provided by the reactor trip function is not required.

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:

Timothy J. Polich, 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. 39 to NPF-87
2. Amendment No. 25 to NPF-89
3. Safety Evaluation

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RJones	LHurley, RIV	OPA	OGC

Document Name: CP90211.AMD

OFC	LA/PD4-1	PM/PD4-1	BC/SRXB	OGC
NAME	PNoonan	TPolich/vw	RJones for	R Bachmann
DATE	4/13/95	4/13/95	4/13/95	4/19/95
COPY	YES/NO	YES/NO	YES/NO	YES/NO

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Group Vice President, Nuclear
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 17, 1995

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Group Vice President, Nuclear
TU Electric
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Enclosures: 1. Amendment No. 39 to NPF-87
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P. O. Box 12428
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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. 39
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 August 9, 1994 (LAR 94-013, TXX-94211), 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. 39, 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: April 17, 1995

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. 25
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 August 9, 1994 (LAR 94-013, TXX-94211), 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. 25, 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: April 17, 1995

ATTACHMENT TO LICENSE AMENDMENT NOS. 39 AND 25

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	INSERT
2-5	2-5
B 2-4	B 2-4
3/4 3-2	3/4 3-2
3/4 3-8	3/4 3-8

TABLE 2.2-1

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (S)	TRIP SETPOINT	ALLOWABLE VALUE
1. Manual Reactor Trip	N.A.	N.A.	N.A.	N.A.	N.A
2. Power Range, Neutron Flux					
a. High Setpoint	7.5	4.56	1.25	≤109% of RTP*	≤111.7% of RTP*
b. Low Setpoint	8.3	4.56	1.25	≤25% of RTP*	≤27.7 of RTP*
3. Power Range, Neutron Flux, High Positive Rate	1.6	0.5	0	≤5% of RTP* with a time constant ≥2 seconds	≤6.3% of RTP* with a time constant ≥2 seconds
4. Not Used					
5. Intermediate Range, Neutron Flux	17.0	8.41	0	≤25% of RTP*	≤31.5 of RTP*
6. Source Range, Neutron Flux	17.0	10.01	0	$\leq 10^5$ cps	$\leq 1.4 \times 10^5$ cps
7. Overtemperature N-16					
a. Unit 1	10.53	6.70	1.0+1.10+ 0.76(1)	See Note 1	See Note 2
b. Unit 2	10.0	6.75	1.0+1.38+ 0.96(2)	See Note 1	See Note 2

*RTP = RATED THERMAL POWER
(1) 1.0% span for N-16 power monitor, 1.10% for T_{cold} RTDs and 0.76% for pressurizer pressure sensors.
(2) 1.0% span for N-16 power monitor, 1.38% for T_{cold} RTDs and 0.96% for pressurizer pressure sensors.

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (S)	TRIP SETPOINT	ALLOWABLE VALUE
8. Overpower N-16	4.0	2.05	1.0+0.05(3)	≤112% of RTP*	≤114.5% of RTP*
9. Pressurizer Pressure-Low					
a. Unit 1	4.4	0.71	2.0	≥1880 psig	≥1863.6 psig
b. Unit 2	4.4	1.12	2.0	≥1880 psig	≥1863.6 psig
10. Pressurizer Pressure-High					
a. Unit 1	7.5	5.01	1.0	≤2385 psig	≤2400.8 psig
b. Unit 2	7.5	1.12	2.0	≤2385 psig	≤2401.4 psig
11. Pressurizer Water Level-High					
a. Unit 1	8.0	2.18	2.0	≤92% of instrument span	≤93.9% of instrument span
b. Unit 2	8.0	2.35	2.0	≤92% of instrument span	≤93.9% of instrument span
12. Reactor Coolant Flow-Low					
a. Unit 1	2.5	1.18	0.6	≥90% of loop design flow**	≥88.6% of loop design flow**
b. Unit 2	2.5	1.25	0.87	≥90% of loop minimum measured flow***	≥88.8% of loop minimum measured flow***

(3) 1.0% span for N-16 power monitor and 0.05% for T_{cold} RTDs.
* RTP = RATED THERMAL POWER
** Loop design flow = 99,050 gpm
*** Loop minimum measured flow = 98,500 gpm

BASES

2.2.1 REACTOR TRIP SYSTEM INSTRUMENTATION SETPOINTS

The Reactor Trip Setpoint Limits specified in Table 2.2-1 are the nominal values at which the Reactor trips are set for each functional unit. The Trip Setpoints have been selected to ensure that the core and Reactor Coolant System are prevented from exceeding their safety limits during normal operation and design basis anticipated operational occurrences and to assist the Engineered Safety Features Actuation System in mitigating the consequences of accidents. The setpoint for a Reactor Trip System or interlock function is considered to be adjusted consistent with the nominal value when the "as measured" setpoint is within the band allowed for calibration accuracy and instrument drift.

To accommodate the instrument drift assumed to occur between operational tests and the accuracy to which setpoints can be measured and calibrated, Allowable Values for the Reactor Trip Setpoints have been specified in Table 2.2-1. Operation with setpoints less conservative than the Trip Setpoint but within the Allowable Value is acceptable since an allowance has been made in the safety analysis to accommodate this error. An optional provision has been included for determining the OPERABILITY of a channel when its Trip Setpoint is found to exceed the Allowable Value. The methodology of this option utilizes the "as measured" deviation from the specified calibration point for rack and sensor components in conjunction with a statistical combination of the other uncertainties of the instrumentation to measure the process variable and the uncertainties in calibrating the instrumentation. In Equation 2.2-1, $Z + R + S \leq TA$, the interactive effects of the errors in the rack and the sensor, and the "as measured" values of the errors are considered. Z, as specified in Table 2.2-1, in percent span, is the statistical summation of errors assumed in the analysis excluding those associated with the sensor and rack drift and the accuracy of their measurement. TA or Total Allowance is the difference, in percent span, between the Trip Setpoint and the value used in the analysis for Reactor trip. R or Rack Error is the "as measured" deviation, in percent span, for the affected channel from the specified Trip Setpoint. S or Sensor Error is either the "as measured" deviation of the sensor from its calibration point or the value specified in Table 2.2-1, in percent span, from the analysis assumptions. Use of Equation 2.2-1 allows for a sensor drift factor, an increased rack drift factor, and provides a threshold value for REPORTABLE EVENTS.

The methodology to derive the Trip Setpoints is based upon combining all of the uncertainties in the channels. Inherent to the determination of the Trip Setpoints are the magnitudes of these channel uncertainties. Sensors and other instrumentation utilized in these channels are expected to be capable of operating within the allowances of these uncertainty magnitudes. Rack drift in excess of the Allowable Value exhibits the behavior that the rack has not met its allowance. Being that there is a small statistical chance that this will happen, an infrequent excessive drift is expected. Rack or sensor drift, in excess of the allowance that is more than occasional, may be indicative of more serious problems and should warrant further investigation.

REACTOR TRIP SYSTEM INSTRUMENTATION SETPOINTS (Continued)

The various Reactor trip circuits automatically open the Reactor trip breakers whenever a condition monitored by the Reactor Trip System reaches a preset or calculated level. In addition to redundant channels and trains, the design approach provides a Reactor Trip System which monitors numerous system variables, therefore providing Trip System functional diversity. The functional capability at the specified trip setting is required for those anticipatory or diverse Reactor trips for which no direct credit was assumed in the safety analysis to enhance the overall reliability of the Reactor Trip System. The Reactor Trip System initiates a Turbine trip signal whenever Reactor trip is initiated. This prevents the insertion of positive reactivity that would otherwise result from excessive Reactor Coolant System cooldown and thus avoids unnecessary actuation of the Engineered Safety Features Actuation System.

Manual Reactor Trip

The Reactor Trip System includes manual Reactor trip capability.

Power Range, Neutron Flux

In each of the Power Range Neutron Flux channels there are two independent bistables, each with its own trip setting used for a High and Low Range trip setting. The Low Setpoint trip provides protection during subcritical and low power operations to mitigate the consequences of a power excursion beginning from low power, and the High Setpoint trip provides protection during power operations to mitigate the consequences of a reactivity excursion from all power levels.

The Low Setpoint trip may be manually blocked above P-10 (a power level of approximately 10% of RATED THERMAL POWER) and is automatically reinstated below the P-10 Setpoint.

Power Range, Neutron Flux, High Rates

The Power Range Positive Rate trip provides protection against rapid flux increases which are characteristic of a rupture of a control rod drive housing. Specifically, this trip complements the Power Range Neutron Flux High and Low trips to ensure that the criteria are met for rod ejection from mid-power.

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR TRIP SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.1 As a minimum, the Reactor Trip System instrumentation channels and interlocks of Table 3.3-1 shall be OPERABLE.

APPLICABILITY: As shown in Table 3.3-1.

ACTION:

As shown in Table 3.3-1.

SURVEILLANCE REQUIREMENTS

4.3.1.1 Each Reactor Trip System instrumentation channel and interlock and the automatic trip logic shall be demonstrated OPERABLE by the performance of the Reactor Trip System Instrumentation Surveillance Requirements specified in Table 4.3-1.

4.3.1.2 The REACTOR TRIP SYSTEM RESPONSE TIME of each Reactor trip function shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least one train such that both trains are tested at least once per 36 months and one channel per function such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific Reactor trip function as shown in the "Total No. of Channels" column of Table 3.3-1.

TABLE 3.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1. Manual Reactor Trip	2	1	2	1, 2	1
	2	1	2	3[a], 4[a], 5[a]	9
2. Power Range, Neutron Flux					
a. High Setpoint	4	2	3	1, 2	2
b. Low Setpoint	4	2	3	1[c], 2	2
3. Power Range, Neutron Flux, High Positive Rate	4	2	3	1, 2	2
4. Not Used					
5. Intermediate Range, Neutron Flux	2	1	2	1[c], 2	3
6. Source Range, Neutron Flux					
a. Reactor Trip and Indication					
1) Startup	2	1	2	2[b]	4
2) Shutdown	2	1	2	3, 4, 5	5.1
7. Overtemperature N-16	4	2	3	1, 2	12
8. Overpower N-16	4	2	3	1, 2	12
9. Pressurizer Pressure--Low	4	2	3	1[d]	6[e]
10. Pressurizer Pressure--High	4	2	3	1, 2	6

Unit 1 - Amendment No. ~~10,13,14,16,20~~,39
Unit 2 - Amendment No. ~~2,6~~,25

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

ACTION 8 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1 or maintenance, provided the other channel is OPERABLE.

ACTION 9 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or open the reactor trip breakers within the next hour.

ACTION 10 - With the number of OPERABLE channels less than the Total Number of Channels, operation may continue provided the inoperable channels are placed in the tripped condition within 6 hours.

ACTION 11 - With one of the diverse trip features (undervoltage or shunt trip attachment) inoperable, restore it to OPERABLE status within 48 hours or declare the breaker inoperable and apply ACTION 8. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status, during which time ACTION 8 applies.

ACTION 12 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 6 hours, and

b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing per Specifications 4.3.1.1 or 4.2.5.4.

ACTION 13 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE.

TABLE 4.3-1
REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Manual Reactor Trip	N.A.	N.A.	N.A.	R(14)	N.A.	1, 2, 3[a], 4[a], 5[a]
2. Power Range, Neutron Flux						
a. High Setpoint	S	D(2, 4), M(3, 4), Q(4, 6), R(4, 5)	Q	N.A.	N.A.	1, 2
b. Low Setpoint	S	R(4)	S/U(1)	N.A.	N.A.	1[c], 2
3. Power Range, Neutron Flux, High Positive Rate	N.A.	R(4)	Q	N.A.	N.A.	1, 2
4. Not Used						
5. Intermediate Range, Neutron Flux	S	R(4, 5)	S/U(1)	N.A.	N.A.	1[c], 2
6. Source Range, Neutron Flux	S	R(4, 13)	S/U(1), Q(9)	R(12)	N.A.	2[b], 3, 4, 5
7. Overtemperature N-16	S	D(2, 4), M(3, 4), Q(4, 6), R(4, 5)	Q	N.A.	N.A.	1, 2
8. Overpower N-16	S	D(2, 4), R(4, 5)	Q	N.A.	N.A.	1, 2
9. Pressurizer Pressure--Low	S	R	Q(8)	N.A.	N.A.	1[d]
10. Pressurizer Pressure--High	S	R	Q	N.A.	N.A.	1, 2

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 39 AND 25 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 August 9, 1994, (LAR 94-013, TXX-94211), Texas Utilities Electric Company (TU Electric/the licensee) requested changes to the Technical Specifications (TSs) (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 delete the high negative neutron flux power range reactor trip function from the CPSES TSs.

The affected TSs are: TS 2.2.1, "Reactor Trip System Instrumentation Setpoints," and TS 3/4.3.1, "Reactor Trip System Instrumentation." In Tables 2.2-1, 3.3-1, and 4.3-1, change the FUNCTIONAL UNIT column entries for Item 4 from "Power Range, Neutron Flux, High Negative Rate" to "Not used" and delete the entries in the remaining columns for these items. Also affected is BASES Section 2.2.1. The second paragraph under the subsection entitled "Power Range, Neutron Flux, High Rates" is deleted.

2.0 BACKGROUND

The requirement for the high negative neutron flux rate reactor trip function was based on an early Westinghouse analysis methodology which took credit for this trip function to protect against localized departure from nucleate boiling (DNB) following the inadvertent drop of one or more rod cluster control assemblies (RCCAs). Through the use of more advanced analytical techniques, it has been shown that this protection is not required to prevent DNB. In the current design basis for CPSES, Units 1 and 2, this trip function is not credited in any of the accident analyses nor is it relied upon to provide a diverse reactor trip function.

The inclusion of this function in the reactor trip system requires that periodic surveillance be performed to ensure the operability of the trip function. In addition to the expenditure of plant resources to perform the surveillance, the risk of an inadvertent reactor trip is increased. Current procedures require that a channel be put in the tripped condition during testing, thereby reducing the effective trip logic from 2-out-of-4 to 1-out-of-3 coincident logic. The 1-out-of-3 coincident logic is significantly more

susceptible to spikes, noise, or personnel errors. By removing this trip function from the reactor trip system, the potential for inadvertent plant trips can be reduced with no impact on plant safety.

3.0 EVALUATION

The high negative neutron flux rate reactor trip function was originally provided to protect against the dropped RCCA events described in Final Safety Analysis Report (FSAR) Section 15.4.3. For these events, it was assumed that the reactor was at full power with the RCCAs inserted to the power-dependent insertion limits.

Following the drop of one or more RCCAs from the same group, the reactor power rapidly decreases due to the negative reactivity insertion of the dropped RCCA(s). If the negative reactivity insertion was sufficiently large, a reactor trip would be initiated on the high negative flux rate reactor trip function. If no reactor trip on the high negative flux rate occurred, the reactor coolant system (RCS) would cool down and depressurize due to the turbine/core power mismatch. DNB was not expected to occur at this point due to the lower power and reduced RCS temperatures; thus the specified fuel design limits were not exceeded. The original Westinghouse analysis methodology (WCAP-10297-P-A, "Dropped Rod Methodology for Negative Flux Rate Trip Plants," June 1983) credited the use of the high negative neutron flux rate trip function.

For the analysis of scenarios using the the new analytical methods, the high negative flux rate trip is not credited. Two advanced analytical methodologies that are applicable to CPSES are: WCAP-11394-P-A, "Methodology for the Analysis of the Dropped Rod Event," January 1990 and RXE-91-002-A, "Reactivity Anomaly Events Methodology for Comanche Peak Steam Electric Station Licensing Applications," TU Electric, October 1993. In the case of WCAP-11394-P-A the staff safety evaluation (SE) dated October 23, 1989, found that no credit was taken for any direct reactor trip due to dropped RCCAs. That SE also stated that further review (for each cycle) was not necessary, given the utility assertions that the analysis described by Westinghouse has been performed and the required comparisions have been made with favorable results. The staff SE for the licensee's methodology (RXE-91-002-A) dated January 19, 1993, found the topical report acceptable for reload licensing analyes for CPSES, subject to the certain applicable limitations and restrictions. The issue of high negative flux rate trip was not explicitly addressed as a limitation or restriction in the SE. Further review of the original RXE-91-002 submittal indicates that no credit was taken for the high negative flux rate trip.

Westinghouse and licensee methodologies do not take credit for the high negative flux rate reactor trip function. If the negative reactivity insertion following a dropped rod is sufficiently large, a reactor trip will be generated on low pressurizer pressure. For this case, it has been shown that no DNB occurs. In addition, it has been shown that no DNB occurs during the return to full power conditions due to the actions of the automatic rod control system and moderator temperature reactivity feedback mechanisms. Thus, for scenarios that do not result in a low pressurizer pressure trip, a reactor trip is unnecessary.

Through the deletion of this trip function from the reactor trip system, the potential for inadvertent plant trips is reduced. The deletion of the trip function removes the potential for spurious reactor trips generated within the high negative neutron flux rate circuitry. In addition, the current TSs require that each of the four channels be tested quarterly to ensure operability. During the period of surveillance testing, the affected channel is placed in the "TRIP" condition, thereby reducing the coincident logic required for plant trip from two-out-of-four to one-out-of-three. The one-out-of-three coincident logic is much more susceptible to inadvertent actuation due to spurious signals or spikes, excessive signal noise, or personnel errors. Through the deletion of this trip function from the TSs, the need to perform the surveillance testing is deleted.

In summary, the high negative neutron flux rate reactor trip function is not credited in any of the CPSES accident analyses. All potential dropped rod events have been shown to either result in a low pressurizer pressure reactor trip or do not require any automatic protective action from the reactor protection system. Further, the deletion of this trip function will decrease the potential for inadvertent or unnecessary reactor trips by removing a source of potential spurious signals and eliminating the possibility of inadvertent trips during the performance of required surveillance testing. Therefore, the staff concludes that the proposed TS changes do not adversely affect plant safety, will result in a net benefit to the safe operation of the facility, and are 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 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 (59 FR 49438). 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.

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