TU ELECTRIC

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Ref. # 10CFR50.90
10CFR50.36

January 5, 1996

C. Lance Terry
*Group Vice President*

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
SUBMITTAL OF LICENSE AMENDMENT REQUEST 96-001
WIDE RANGE RCS TEMP.-$T_h$ REMOTE SHUTDOWN INDICATION

REF: 1. TU Electric letter logged TXX-96009 from C. L. Terry to the NRC dated January 4, 1996
2. TU Electric letter logged TXX-96010 from C. L. Terry To the NRC dated January 5, 1996

Gentlemen:

Pursuant to 10CFR50.90, TU Electric hereby requests an amendment to the CPSES Unit 1 Operating License (NPF-87) and CPSES Unit 2 Operating License (NPF-89) by incorporating the attached change into the CPSES Units 1 and 2 Technical Specifications. These changes are only applicable to CPSES Unit 2 and are being submitted on the CPSES Unit 1 docket for administrative purposes only because the CPSES Units 1 and 2 Technical Specifications is a single document which applies to both units.

This license amendment request (LAR) proposes a temporary change to the Technical Specifications to revise the requirements for Minimum Channels OPERABLE for Wide Range RCS (Reactor Coolant System) Temp.(Temperature)-$T_h$ remote shutdown indication for CPSES Unit 2. The minimum number of channels required is being revised from 1 per RCS Loop for each RCS Loop to 1 per RCS Loop for 3 of the 4 RCS Loops. This temporary change is requested as a result of the failure of one of the $T_h$ channels in a manner which cannot be repaired without a unit shutdown and a possible cooldown.

Attachment 1 is the required affidavit. Attachment 2 provides a detailed description of the proposed changes, a safety analysis of the changes, and TU Electric's determination that the proposed changes do not involve a significant hazard consideration. Attachment 3 provides the affected Technical Specification page, marked-up to reflect the proposed changes.

This LAR is being submitted as follow-up to a request for enforcement discretion (References 1 and 2). Approval of the Technical Specification change is requested in accordance with the time allowance of the enforcement discretion. The license amendment should be effective upon issuance to be implemented immediately.



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In accordance with 10CFR50.91(b), TU Electric is providing the State of Texas with a copy of this proposed amendment.

Should you have any questions, please contact Mr. Jose Rodriquez at (214) 812-8674.

Sincerely,

C. L. Terry

By: Roger D. Walker
Roger D. Walker
Regulatory Affairs Manager

JDR/dw
Attachments:
1. Affidavit
2. Description and Assessment
3. Affected Technical Specification page as revised by all approved license amendments

cc - Mr. L. J. Callan, Region IV
Mr. T. J. Polich, NRR
Ms. W. D. Johnson, Region IV
Resident Inspectors, CPSES

Mr. Arthur C. Tate
Bureau of Radiation Control
Texas Department of Public Health
1100 West 49th Street
Austin, Texas 78704

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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| In the Matter of | ) | |
| | ) | |
| Texas Utilities Electric Company | ) | Docket Nos. 50-445 |
| | ) | 50-446 |
| (Comanche Peak Steam Electric | ) | License Nos. NPF-87 |
| Station, Units 1 & 2) | ) | NPF-89 |

AFFIDAVIT

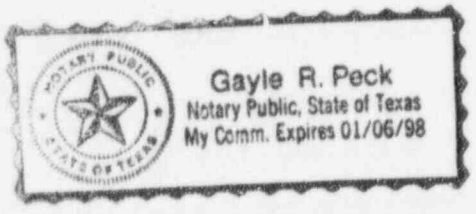
Roger D. Walker being duly sworn, hereby deposes and says that he is Regulatory Affairs Manager for TU Electric, the licensee herein; that he is duly authorized to sign and file with the Nuclear Regulatory Commission this License Amendment Request 96-001; that he is familiar with the content thereof; and that the matters set forth therein are true and correct to the best of his knowledge, information and belief.

Roger D. Walker
Regulatory Affairs Manager

STATE OF TEXAS )
)
COUNTY OF DALLAS )

Subscribed and sworn to before me, on this 5th day of January, 1996.

Gayle R. Peck
Notary Public



# DESCRIPTION AND ASSESSMENT

## I. BACKGROUND

On December 31, 1995, at 2:10 a.m. CST, the Wide Range RCS (Reactor Coolant System) Temp. (Temperature) -$T_h$ remote shutdown indication for one RCS Loop was discovered to be inoperable. Troubleshooting efforts indicated a ground. The location of the ground has been isolated to an area inside containment that is normally only accessible during periods of a reactor shutdown. Radiation levels, temperature and personnel safety considerations preclude further corrective actions without performing a plant shutdown and a possible cooldown. CPSES Unit 2 is scheduled to commence a refueling outage on February 22, 1996. CPSES Unit 2 has no other outages planned during the 7 weeks prior to the scheduled start of the refueling outage. TU Electric is requesting a revision to the Technical Specifications requirement that all four remote shutdown monitoring channels for Wide Range RCS Temp.-$T_h$ be operable. The requested revision is temporary and is meant to expire upon Unit 2 entry into MODE 4 at the beginning of the second refueling outage for Unit 2.

## II. DESCRIPTION OF TECHNICAL SPECIFICATIONS CHANGE REQUEST

In Technical Specification Table 3.3-5 "REMOTE SHUTDOWN MONITORING INSTRUMENTATION" add the following:

add an asterisk "*" to the MINIMUM CHANNELS OPERABLE column for item 3 "Wide range RCS Temp.-$T_h$" to reference a footnote at the bottom of the page.

Add a footnote at the bottom of the page after the definitions of the acronyms to state

* - The requirements for Minimum Channels OPERABLE for Wide Range RCS Temp.-$T_h$ remote shutdown indication for Unit 2 are revised to 1/Loop for three (3) of the four (4) RCS Loops. This revision is to remain in effect until CPSES Unit 2 enters MODE 4 at the beginning of the second refueling outage for Unit 2.

In summary, this license amendment revises the requirements to allow operation with one of the four available instruments out of service until CPSES Unit 2 enters MODE 4 at the beginning of the second refueling outage for Unit 2.

## III. ANALYSIS

Limiting Condition for Operation (LCO) 3.3.3.2.1, "Remote Shutdown Instrumentation," requires, in part, that one Wide Range RCS Temp.-$T_h$ per RCS Loop be OPERABLE in MODES 1, 2, and 3. ACTION Statement "a" requires that an

inoperable instrument be restored to OPERABLE status within 7 days or be in at least MODE 4, HOT SHUTDOWN, within the next 12 hours.

The subject instrument is part of the CPSES design for shutdown from outside the control room (see CPSES Final Safety Analysis Report (FSAR) section 7.4.1.3). The Wide Range RCS Temperature indication is used in a remote shutdown situation for verification of natural circulation, verification of adequate RCS sub-cooling, and for verifying that RCS temperature is adequate for initializing Residual Heat Removal (RHR) cooling. In the unlikely event that shutdown from outside the control room, the inoperability of Wide Range Temp.-$T_h$ for a single RCS Loop is expected to have no measurable impact on the ability of the operators to safely cooldown the RCS and establish RHR cooling.

The $T_h$ indication is used for monitoring natural circulation cooldown. Steam Generator Pressure is the primary means of temperature control based on the saturated steam conditions in the Steam Generator. Under low steam flow conditions, the Steam Generator temperature is close to the RCS cold leg temperature. Knowledge of the saturation temperature corresponding to the observed steam pressure provides the best indicator of RCS conditions. $T_c$ and especially $T_h$ indication lags behind the steam pressure indication, particularly under natural circulation conditions due to the loop transit time. For this reason the $T_h$ indication is a secondary indication of RCS conditions to the Steam Generator pressure. For the situation of a cooldown when there is forced RCS flow, there is a small differential temperature across the Steam Generator and Reactor Core and $T_c$ is nearly the same as the $T_h$ and provides the same information as the inoperable $T_h$. For the situation of natural circulation, there is a larger differential temperature but the relationship of steam pressure as previously explained exists. Trending of the steam pressure and $T_c$ in the loops will provide indication that the natural circulation is occurring in the active loops and therefore, the $T_h$ of the loop without indication is approximately the same as that indicated in any other active loops with $T_h$ indication. Abnormal operating procedures for shutdown from outside the Control Room address the use of Steam Pressure as the primary indicator of RCS temperature for comparison to the RCS Pressure [also available on the Hot Shutdown Panel (HSP)] to confirm adequate subcooling margin exists during the cooldown. The procedure specifically calls for the use of steam generator pressure in the determination of subcooling margin, cooldown rate and RCS temperature. The operators are trained on these procedures and also to use all available instrumentation. With the operator training, and the availability of the other remote shutdown indications, one $T_h$ indication is adequate for the operator to perform a controlled shutdown of the Reactor.

The worst case scenario for shutdown from outside the control room is for those instances involving a fire in either the control room or the cable spreading room. The failed $T_h$ indication is one of two which have been analyzed per the Fire Safe Shutdown Analysis to be available for operation at the HSP following a fire. Only two have been analyzed as only those Steam Generators fed by the Train A Auxiliary Feedwater Pump are used for plant cooldown following a fire in these locations. If this event were to occur during the duration of this temporary Technical Specification change, the operator would retain indication of RCS hot leg temperature from the remaining $T_h$ indication and use the correlations to other parameters

previously described . For shutdowns other than post fire shutdown, the remaining $T_h$ indicators (3) allow for plant cooldown.

The Standard Review Plan 7.4 "Safe Shutdown Systems" and Branch Technical Position CMEB 9.5-1 "Guidelines for Fire Protection for Nuclear Power Plants," states that systems designed to ensure post fire shutdown capability, need not be designed to meet single failure criteria. For shutdowns other than post fire shutdown, the remaining $T_h$ indicators (3) allow for plant cooldown.

Therefore loss of a single loop $T_h$ indicator has minimal safety significance with no potential for negative consequences should use of the HSP be required.

## IV. SIGNIFICANT HAZARDS CONSIDERATIONS ANALYSIS

TU Electric has evaluated whether or not a significant hazards consideration is involved with the proposed changes by focusing on the three standards set forth in 10CFR50.92(c) as discussed below:

1. Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?

   The unavailability of one RCS Loop $T_h$ indication at the HSP cannot be an initiating event for nor affect the progression or mitigation of any licensing basis accident; therefore the probability of occurrence of any licensing accident cannot be affected.

   The request proposes to change the minimum channels operable for Wide Range Hot Leg RCS Temperature $T_h$ indication at the HSP. Sufficient alternate instrumentation is available on the HSP to provide the information normally directly obtained from $T_h$. The current Technical Specifications acknowledge the need to and allow for operation with one $T_h$ inoperable for the Allowed Outage Time (AOT) in the action statement. The current Technical Specifications have an AOT of seven days. Further, the improved Standard Technical Specifications allows an AOT of 30 days. The duration of this request is not significantly different than these time periods. Thus the consequences of a remote shutdown with the affected instrument inoperable have already been considered and this change will not increase the consequences of an accident previously evaluated.

2. Do the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated?

   Operation for a period of time with the one RCS Loop $T_h$ unavailable will not create the possibility of a new or different kind of accident from any accident previously evaluated. No hardware modifications are being made and no plant procedures are being revised that would alter normal plant operations.

3. Do the proposed changes involve a significant reduction in a margin of safety?

   The Wide Range Hot Leg RCS Temperature indication at the HSP is only required in the event that a remote shutdown from outside the control room is needed. The availability of other remote shutdown indications (including $T_c$, $T_h$ in other RCS Loops, and Steam Generator pressure) in combination with licensed operators who have been briefed on how to compensate for an inoperable $T_h$ for one RCS Loop using these other indications, assures that the increased unavailability of the instrument will not have a significant effect in the margin of safety.

Based on the above evaluations, TU Electric concludes that the activities associated with the proposed changes satisfy the no significant hazards consideration standards of 10CFR50.92(c) and accordingly, a no significant hazards consideration finding is justified.

## V. ENVIRONMENTAL EVALUATION

TU Electric has determined that the proposed amendment would change requirements with respect to the installation or use of a facility component located within the restricted area, as defined in 10CFR20, or would change an inspection or surveillance requirement. TU Electric has evaluated the proposed changes and has determined that the changes do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed changes meet the eligibility criterion for categorical exclusion set forth in 10CFR51.22(c)(9). Therefore, pursuant to 10CFR51.22(b), an environmental assessment of the proposed change is not required.

## VI. REFERENCES

1. NUREG-1431, Revision 1, Standard Technical Specifications, Westinghouse Plants, April 1995.

2. TU Electric letter logged TXX-96009 from C. L. Terry to the NRC, dated January 4, 1996.

3. TU Electric letter logged TXX-96010 from C. L. Terry to the NRC, dated January 5, 1996.

ATTACHMENT 3 to TXX-96007

AFFECTED TECHNICAL SPECIFICATION PAGES

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