

**TU**ELECTRIC

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10010  
Ref. # 10CFR50.90  
10CFR50.36

William J. Cahill, Jr.  
Group Vice President

May 14, 1993

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 93-002  
EXTENSION OF BORON DILUTION MITIGATION SYSTEM  
TEMPORARY TECHNICAL SPECIFICATION CHANGE

- REF: 1. NRC letter from Thomas A. Bergman to William J. Cahill, Jr., dated June 8, 1992, issuing Amendment 10 to Facility Operating License No. NPF-87
2. TU Electric letter logged TXX-93098 from William J. Cahill, Jr. to the NRC dated April 30, 1993.

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 changes into the CPSES Units 1 and 2 Technical Specifications. These changes apply equally to CPSES Units 1 and 2.

The CPSES Unit 2 Facility Operating License and Amendment No. 10 to the Unit 1 Facility Operating License (Reference 1) include the temporary removal of the operability requirements for the Boron Dilution Mitigation System (BDMS). This temporary relief was provided to allow further research into operability problems in the BDMS and to identify a long-term solution.

On April 30, 1993, TU Electric submitted a license amendment request (Reference 2) LAR 93-001, which provided an alternate method to detect, mitigate and analyze postulated boron dilution events while in modes 3, 4 or 5. On May 3, 1993, TU Electric was informed that the NRC staff may not be able to complete its review of that request and issue a license amendment prior to the expiration of the temporary relief for Unit 1, which is June 25, 1993. In order to ensure that plant operations are not prevented due to an inoperable BDMS while LAR 93-001 is being reviewed, TU Electric hereby

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400 N. Olive Street L.B. 81 Dallas, Texas 75201

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proposes to extend the temporary removal of the operability requirements of the BDMS.

BDMS operability is presently not required until six months after criticality for fuel cycle 3 for Unit 1 and six months after initial criticality for Unit 2. The extended schedule will remove the operability requirements for the BDMS for both Units until startup following the third refueling outage for Unit 1.

TU Electric requests approval of this proposed license amendment by June 20, 1993, with implementation of the technical specification changes to occur within 30 days after NRC approval. The following compensatory actions will remain in effect for the duration of this temporary change:

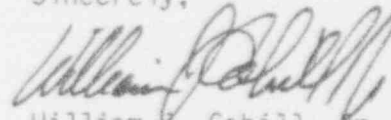
- 1) Within 4 hours of entry into MODES 3, 4 or 5 from MODES 1, 2 or 6, (and once per every 14 days thereafter while in MODES 3, 4 or 5), TU Electric will verify (unless startup is in progress) that either valve CS-8455 or valves CS-8560, FCV-111B, CS-8439, CS-8441, and CS-8453 are closed and secured in position; or
- 2) Following entry into MODES 3, 4 or 5 from MODES 1, 2 or 6, each crew of Control Room Staff will receive a briefing to discuss the type of reactivity changes that could occur during a dilution event; the indication of a dilution event; and the actions required to stop dilution, commence immediate boration and establish the required shutdown margin. For extended shutdowns, this briefing will be repeated for each crew prior to resumption of control room duties following an off duty period which exceeds 7 days. During time periods when this option is used, source range will be monitored for indication of unexplained increasing counts and inadvertent boron dilution every fifteen (15) minutes. In addition, within 4 hours of entering MODE 5, TU Electric will ensure that only one Reactor Makeup Water Pump (dilution source) is aligned to the supply header for the affected unit.

This implementation schedule will allow the temporary technical specification change authorized by Amendment 10 to NPF-87 to be extended prior to its expiration date which is June 25, 1993. The schedule and compensatory measures also assure that a level of safety commensurate with the safety evaluation enclosed in Reference 1 is maintained.

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. Bob Dacko at  
(214) 812-8228.

Sincerely,



William V. Cahill, Jr.  
Group Vice President  
Nuclear Production

BSD/gjh

Attachments: 1. Affidavit  
2. Description and Assessment  
3. Affected Technical Specification page (NUREG-1468)

c - Mr. J. L. Milhoan, Region IV  
Mr. B. E. Holian, NRR  
Mr. T. A. Bergman, NRR  
Mr. L. A. Yandell, NRR  
Resident Inspectors, CPSES (2)

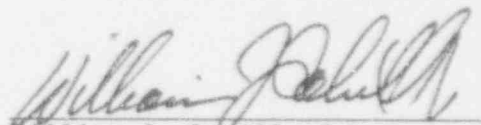
Mr. D. K. Lacker  
Bureau of Radiation Control  
Texas Department of Public Health  
1100 West 49th Street  
Austin, Texas 78704

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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

AFFIDAVIT

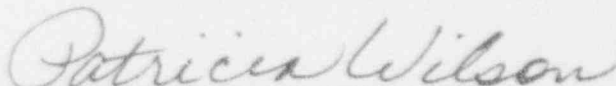
William J. Cahill, Jr. being duly sworn, hereby deposes and says that he is Group Vice President, Nuclear Production for TU Electric, the licensee herein; that he is duly authorized to sign and file with the Nuclear Regulatory Commission this revision to License Amendment Request 93-002; that he is familiar with the content thereof; and that the matters set forth therein are true and correct to the best of his knowledge, information and belief.



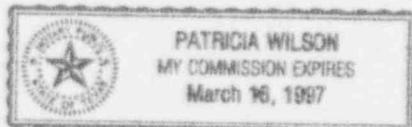
William J. Cahill, Jr.  
Group Vice President  
Nuclear Production

STATE OF TEXAS )  
COUNTY OF SOMERVELL )

Subscribed and sworn to before me, on this 13th day of May, 1993.



Notary Public



## DESCRIPTION AND ASSESSMENT

### I. BACKGROUND

The CPSES Unit 2 Facility Operating License and Amendment No. 10 to the Unit 1 Facility Operating License (reference 1) include the temporary removal of the operability requirements for the Boron Dilution Mitigation System (BDMS). This temporary relief was provided to allow further research into operability problems in the BDMS to identify a long-term solution.

On April 30, 1993, TU Electric submitted a license amendment request (reference 2) LAR 93-001, which provided an alternate method to detect, mitigate and analyze postulated boron dilution events while in modes 3, 4 or 5. On May 3, 1993, TU Electric was informed that the NRC staff may not be able to complete its review of that request and issue a license amendment prior to the expiration of the temporary relief for Unit 1, which is June 25, 1993. In order to ensure that plant operations are not prevented due to an inoperable BDMS while LAR 93-001 is being reviewed, TU Electric hereby proposes to extend the temporary removal of the operability requirements for the BDMS.

### II. DESCRIPTION OF TECHNICAL SPECIFICATION CHANGE REQUEST

The proposed change affects the footnotes which provide the temporary removal of the operability requirements of the BDMS. These footnotes are associated with the following requirements:

#### Table 3.3-1

- Functional Unit 6.b.-"Boron Dilution Flux Doubling
- Table Notation "h"
- Action Statement 5.2

#### Table 4.3-1

- Functional Unit 6., "Source Range, Neutron Flux," Trip Activity Device Operational Test R(12)
- Table Notations (9) and (12)

In each case, the footnote will be revised to change the effective date for the Boron Dilution Flux Doubling requirements from "for Unit 1 six months after criticality for Cycle 3 and for Unit 2 six months after initial criticality" to "for Unit 1 and Unit 2 after criticality for Unit 1, Cycle 4."

In summary, the requirement for the operability of the BDMS for both units is being delayed until after the third refueling outage for Unit 1.

### III. ANALYSIS

The basis of the original request (LAR 92-001) provided in TU Electric letter TXX-92116 dated February 28, 1992, as supplemented by TXX-92169 dated April 6, 1992, and approved by Unit 1 License Amendment 10, remains valid for this extension.

The existing temporary removal of the operability requirements for the Boron Dilution Mitigation System has been reviewed by TU Electric and the NRC (see the safety evaluation attached to Amendment 10 to the Unit 1 license, reference 1). The bases for these reviews, including the committed compensatory actions, remain valid for this extension request. The only thing which has changed is the duration of the temporary change.

The original durations were established to limit the time that the temporary change would be in place and yet allow sufficient time to research the issues involved, verify the conclusions during testing following core (re)load, propose a permanent resolution, and for the NRC to review and approve the permanent resolution. Extending the temporary change through the end of the third refueling outage for Unit 1, equates to about a six month extension for Unit 1 and about a three month extension for Unit 2. The evaluations provided for the original temporary change remain valid for this additional time period. The compensatory measures to isolate the dilution paths or to increase operator awareness and monitoring will continue to reduce the probability of a boron dilution event. The analyses which show that at least 15 minutes exist from the initiation of an inadvertent boron dilution while in modes 3, 4 or 5 before shutdown margin is lost remain valid. The other alarms and indicators which allow the detection of an inadvertent boron dilution remain available. Thus it is reasonable to conclude that the measures above will continue to provide reasonable assurance of timely detection and mitigation of an inadvertent boron dilution event during the extended duration proposed by this change.

#### IV. SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

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:

Does the proposed change:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated?

This change is an extension of the temporary requirements presently authorized by the existing Technical Specifications. As such, this extension cannot increase the consequences of an accident previously evaluated. Likewise, the extension will not increase the probability of an accident because the BDMS is a mitigation system and does not contribute to any events that initiate any accidents previously evaluated.

2. Create the possibility of a new or different kind of accident from any accident previously evaluated?

Since there are no hardware or operational changes resulting from this extension, the change does not create the possibility of a new or different kind of accident.

3. Involve a significant reduction in a margin of safety?

The margin of safety will be changed based on the fact that under the present Technical specifications, the BDMS would be operable sooner. In lieu of the BDMS, CPSES has established compensatory measures which rely upon isolating the potential boron dilution paths when in modes 3, 4 or 5, or increase operator awareness and monitoring. Based on these compensatory measures, this change does not involve a significant reduction in a margin of safety.

Based on the above evaluations, TU Electric concludes that the activities associated with the above described changes present no significant hazards consideration under the standards set out in 10CFR50.92(c) and, accordingly, a finding by the NRC of no significant hazards consideration is justified.

#### V. ENVIRONMENTAL EVALUATION

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 effluents that may be released offsite, or (iii) a significant increase individual or cumulative occupational radiation exposure. Accordingly, the proposed changes meet the eligibility criterion for categorical exclusion set forth in 10CFR51.22(c). Therefore, pursuant to 10CFR51.22(b), an environmental assessment of the proposed changes is not required.

#### VI. REFERENCES

1. Amendment 10 to the Unit 1 Facility Operating License (WPF-87) as issued by NRC letter of June 8, 1992 by Thomas A. Bergman.
2. TU Electric letter logged TXX-93098 from William J. Cahill, Jr. to the NRC dated April 30, 1993.