UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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

AFFIDAVIT

C. L. Terry being duly sworn, hereby deposes and says that he is Group Vice President, Nuclear Production of TU Electric, that he is duly authorized to sign and file with the Nuclear Regulatory Commission this License Amendment Request 94-016; 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.

C. L. Terry
Group Vice President, Nuclear Production

STATE OF TEXAS)
)
COUNTY OF DALLAS)

Subscribed and sworn to before me, a Notary Public, on this 19th day of September, 1994.

Notary Public

Gayle R. Peck
Notary Public, State of Texas
My Comm. Expires 01/06/98

DESCRIPTION AND ASSESSMENT

I. BACKGROUND

TU Electric has identified surveillance requirements which, per the CPSES Technical Specifications, may only be satisfied by testing which is performed while the unit is shut down or in the refueling mode even though there are no technical or operational limitations which prevent performing much of that testing in other modes. In fact, many of the same tests, which are primarily component or channel rather than system tests, performed to meet these surveillance requirements are also performed at power to meet other surveillance requirements. These requirements are restrictive, create an unnecessary economic burden and scheduling problems, and result in duplicative testing. The tests needed to meet these surveillance requirements require time to set up and are impactive on the completion of outages and the unit's return to service. Coordinating and scheduling these tests with the many other activities which must be performed during an outage only complicates the process of minimizing the shutdown risk associated with the outage. The same surveillance requirements in the improved Standard Technical Specifications, NUREG-1431 (reference 1), do not include the limitation that the testing must be performed "during shutdown" or "during the REFUELING MODE or COLD SHUTDOWN."

The merit of this approach was previously confirmed when, during the process of finalizing the Technical Specifications for Unit 2 and dual unit operation (reference 2), the "during shutdown" requirement for Service Water surveillance requirement 4.7.4.1.1b. was deleted. This surveillance requirement verifies the start of the Station Service Water pumps on a safety injection signal. As revised, the surveillance requirement must be completed once per 18 months and the testing may be scheduled for any mode in which it is technically and operationally acceptable to perform the testing.

In order to more effectively coordinate the testing associated with surveillance requirements and to better utilize available resources, TU Electric has submitted the proposed technical specification changes described below to revise several other specifications in a manner similar to the way the Station Service Water specification was previously revised.

II. DESCRIPTION OF TECHNICAL SPECIFICATIONS CHANGE REQUEST

The proposed changes would revise the certain specifications to delete the restriction that the testing for the 18 months surveillance requirements must be performed "during shutdown" or "during the REFUELING MODE or COLD SHUTDOWN." The specific proposed changes for each specification are listed below:

a. Emergency Core Cooling system surveillance requirement 4.5.2e. requires the testing be performed every 18 months during shutdown. The proposed change would remove the phrase "during shutdown."

b. Containment Spray system surveillance requirement 4.6.2.1c. requires the testing be performed every 18 months during shutdown. The proposed change would remove the phrase "during shutdown."

c. Spray Additive system surveillance requirement 4.6.2.2c. requires the testing be performed every 18 months during shutdown. The proposed change would remove the phrase "during shutdown."

d. Containment Isolation Valve surveillance requirement 4.6.3.2 requires the testing be performed while the unit is in refueling mode or cold shutdown at least once per 18 months. The proposed change would remove the phrase "during the REFUELING MODE or COLD SHUTDOWN."

e. Auxiliary Feedwater System surveillance requirement 4.7.1.2b. requires the testing be performed every 18 months during shutdown. The proposed change would remove the phrase "during shutdown."

f. Component Cooling Water system surveillance requirement 4.7.3b. requires the testing be performed every 18 months during shutdown. The proposed change would remove the phrase "during shutdown."

In summary, for the 18 month surveillance requirements for the Emergency Core Cooling, Containment Spray, Spray Additive, Containment Isolation Valves, Auxiliary Feedwater and Component Cooling Water specifications, the proposed changes delete the requirement that the testing for these surveillance requirements be performed "during shutdown" or "during the REFUELING MODE or COLD SHUTDOWN." These changes will allow these surveillance requirements to be completed by testing performed in any mode in which it is technically and operationally acceptable to perform the testing. These changes are consistent with the surveillance requirements contained in the improved Standard Technical Specifications, NUREG-1431.

III. ANALYSIS

Technical Specification 4.3.2.1 (Table 4.3-2) specifies a series of at power tests, including Analog Channel Operational Tests (ACOTS), Actuation Logic Tests, Master Relay Tests, and Slave Relay Tests, which constitute a series of overlapping tests that functionally exercise the majority of the channel including actuated devices. In particular, as described in CPSES FSAR section 7.1.2.5 (reference 3), the slave relays are designed to be individually tested and components associated with the same ESF function that can be actuated together at power have been assigned to a common slave relay. Components whose actuation at power could jeopardize safe, reliable plant operation are assigned to relays with a blocking feature or can be individually blocked, allowing the relay to be actuated without component actuation. The majority of components are testable at power and are actuated during quarterly slave relay testing.

Except where component actuation is blocked by the installed testing circuit or where TU Electric has elected not to actuate components due to adverse effects on plant operations, the pump and valve components impacted by this proposed technical specification change may be actuated during the performance of quarterly slave relay testing at power. When the component actuations are blocked by the installed test circuitry, or where TU Electric has elected not to actuate the components at power, the components affected by the proposed technical specification change are actuated during shutdown periods.

There are three categories into which the affected components can be classified with respect to slave relay testing: 1) actuation blocked by installed test circuitry, 2) actuation blocked by proceduralized alternate methods or 3) the component is actuated. The components impacted by the proposed technical specification change that fall into the third category are actuated during testing using the same procedure and testing methods used to meet the surveillance requirements for the quarterly and other surveillance requirements. The attributes of these category 3 components are similar in that they will cause no adverse impact on plant operation regardless of plant mode.

In summary, the "during shutdown" and "during the REFUELING MODE or COLD SHUTDOWN" restrictions in certain surveillance requirements force TU Electric to shutdown or extend its shutdown durations to perform the testing needed to satisfy these surveillance requirements. These restrictions do not enhance the value of the testing. In most cases, this testing is already performed while at power as a means to satisfy other testing requirements. The portions of the testing which are best performed while shutdown have been identified during the technical reviews of the test procedures and are controlled by the procedures on that basis. The proper limitations on testing have been identified and are properly controlled by the test procedures. The limitations in the Technical Specifications which only allow TU Electric to take credit for testing which is performed during a shutdown for certain surveillance requirements are unnecessary, cause some duplicative testing, and resulting a significant economic impact on TU Electric.

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 10 CFR 50.92(c) as discussed below.

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

These proposed technical specification changes delete the restrictions that only tests which are performed "during shutdown" or "during REFUELING MODE or COLD SHUTDOWN" be used to comply with certain surveillance requirements. The tests of concern are equally valid whether they are performed during shutdown or if they are performed entirely or in part at power. "Testing at power" was never prohibited by the technical specifications although, for these surveillances, "testing while shutdown" was required. The testing which is performed at power is reviewed to ensure that the proper prerequisites are established, including the proper unit mode of operation and the proper circuit blocks. Significant portions of the testing needed to comply with these surveillance requirements, and in some cases the entire test, are already performed while at power as part of the test procedures which are used to comply with other surveillance requirements such as the Slave Relay Testing. In general, removing the "during shutdown" and "during REFUELING MODE or COLD SHUTDOWN" restrictions from these surveillance requirements will eliminate the need to re-perform, while shutdown, those portions of the testing which are already routinely performed at power. Deleting such "retest" requirements does not reduce safety, cannot increase the probability or consequences of an accident previously evaluated, and is more likely to reduce the probability of a transient by eliminating duplicative testing.

In the future, it is possible that TU Electric may choose to perform additional portions of these tests at power. Since these portions are not being performed at power now, the net effect is not the deletion of a retest but a change in the required conditions for that portion of the test. Such a change would require a change in the test procedure and would only be allowed if technically and operationally acceptable and if the change did not constitute an unreviewed safety question per 10CFR50.59. These controls are adequate to ensure that any future changes in the test procedures as a result of these proposed technical specification changes will not involve a significant increase in the probability or 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?

The elimination of the requirement to "retest" circuits or equipment which are already tested at power cannot create any failure modes which could result in a new or different kind of accident. The controls which presently exist on revisions to procedures and on testing will ensure that any revisions to test procedures which allow testing which is now performed while shutdown to be performed while operating, are technically and operationally acceptable and will not result in an unreviewed safety question and as such will not create the possibility of a new or different kind or accident from any accident previously evaluated.

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

The "during shutdown" or "during the REFUELING MODE or COLD SHUTDOWN" restriction on these surveillance requirements was intended to provide a margin of safety by avoiding unnecessary unit transients and by avoiding placing the unit in an unanalyzed condition. This intention seems reasonable based on the knowledge that portions of the testing should not be performed at power and that doing the entire surveillance test while shutdown should not have an adverse impact. The proposed changes do not affect system performance or acceptance limits. Because a large portion of the testing, and in some cases the entire test, would be performed at power as a result of other requirements or expectations, the proposed technical specification changes eliminate duplicative testing and, as such, will not reduce the margin of safety.

The impact of revising existing test procedures, as a result of this technical specification change, to allow additional testing to be performed at power, would be properly addressed in the reviews performed as part of the procedure changes, including the required 10CFR50.59 review, and when considered along with the reduction in shutdown risk that could result from such changes, it is concluded that such procedure changes will not involve a significant reduction in a 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 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 off-site, 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 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental assessment of proposed change is not required.

VI. REFERENCES

1. "Standard Technical Specifications, Westinghouse Units" NUREG-1431, Revision 0, September 1992.

2. NRC letter from Mr Christopher I. Grimes to Mr. William G. Counsil dated August 14, 1987.

3. "Final Safety Analysis Report for Comanche Peak Steam Electric Station."
Section 7.1.2.5

4. Safety Guide 22, "Periodic Testing of Protection System Actuation Functions" dated 2/17/72. [Note that per 1A(N) of the FSAR we comply with Safety Guide 22 (2/17/72)]

ATTACHMENT 3 TO TXX-94247

AFFECTED TECHNICAL SPECIFICATION PAGES
(NUREG-1468) REVISED BY ALL APPROVED
LICENSE AMENDMENTS

(pages 3/4 5-5, 3/4 6-11, 3/4 6-12,
3/4 6-14,3/4 7-4, and 3/4 7-13)

SURVEILLANCE REQUIREMENTS (Continued)

2) A visual inspection of the containment sump and verifying that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or abnormal corrosion.

e. At least once per 18 months, ~~during shutdown~~, by:

1) Verifying that each automatic valve in the flow path actuates to its correct position on Safety Injection actuation test signals, and

2) Verifying that each of the following pumps start automatically upon receipt of a Safety Injection actuation test signal:

a) Centrifugal charging pumps,

b) Safety injection pumps, and

c) RHR pumps.

f. By verifying that each of the following pumps develops the indicated differential pressure on recirculation flow when tested pursuant to Specification 4.0.5:

1)	Centrifugal charging pump	≥ 2370 psid,
2)	Safety injection pump	≥ 1440 psid, and
3)	RHR pump	> 170 psid.

g. By verifying the correct position of each mechanical position stop for the following ECCS throttle valves:

1) Within 4 hours following completion of each valve stroking operation or maintenance on the valve when the ECCS subsystems are required to be OPERABLE, and

2) At least once per 18 months:

CCP/SI System Valve Number	SI System Valve Number	
SI-8810A	SI-8822A	SI-8816A
SI-8810B	SI-8822B	SI-8816B
SI-8810C	SI-8822C	SI-8816C
SI-8810D	SI-8822D	SI-8816D

CONTAINMENT SYSTEMS

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent Containment Spray Systems shall be OPERABLE with each Spray System capable of taking suction from the RWST and manually transferring suction to the containment sump.

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

ACTION:

With one Containment Spray System inoperable, restore the inoperable Containment Spray System to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Containment Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;

b. By verifying that in the test mode each train provides a total discharge flow through the test header of greater than or equal to 6600 gpm at 245 psid with the pump eductor line open when tested pursuant to Specification 4.0.5;

c. At least once per 18 months ~~during shutdown~~, by:

1) Verifying that each automatic valve in the flow path actuates to its correct position on a Containment Spray Actuation test signal, and

2) Verifying that each spray pump starts automatically on a Containment Spray Actuation test signal and on a Safety Injection test signal.

d. At least once per 5 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

SPRAY ADDITIVE SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.2 The Spray Additive System shall be OPERABLE with:

a. A spray additive tank indicating a level of between 91% and 94% of between 28% and 30% by weight NaOH solution, and

b. Four spray additive eductors each capable of adding NaOH solution from the chemical additive tank to a Containment Spray System pump flow.

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

ACTION:

With the Spray Additive System inoperable, restore the system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the Spray Additive System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.2 The Spray Additive System shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;

b. At least once per 6 months by:

1) Verifying the indicated solution level in the tank, and

2) Verifying the concentration of the NaOH solution by chemical analysis.

c. At least once per 18 months ~~during shutdown~~, by verifying that each automatic valve in the flow path actuates to its correct position on a Containment Spray Actuation test signal; and

d. At least once per 5 years by verifying:

1) The flow path through the Spray Additive supply line, and

2) RWST test water flow rates of between 50 gpm and 100 gpm through the eductor test loop of each train of the Spray Additive System.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.2 Each containment isolation valve shall be demonstrated OPERABLE ~~during the REFUELING MODE or COLD SHUTDOWN~~ at least once per 18 months by:

a. Verifying that on a Phase "A" Isolation test signal, each Phase "A" isolation valve actuates to its isolation position;

b. Verifying that on a Phase "B" Isolation test signal, each Phase "B" isolation valve actuates to its isolation position; and

c. Verifying that on a Containment Ventilation Isolation test signal, each pressure relief discharge valve actuates to its isolation position.

4.6.3.3 The isolation time of each power-operated or automatic valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

SURVEILLANCE REQUIREMENTS (Continued)

2) Verifying that the steam turbine-driven pump develops a differential pressure of greater than or equal to 1450 psid at a test flow of greater than or equal to 860 gpm when the secondary steam supply pressure is greater than 532 psig. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3;

3) Verifying that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position; and

4) Verifying that each auxiliary feedwater flow control and isolation valve in the flow path is in the fully open position whenever the Auxiliary Feedwater System is in standby for auxiliary feedwater automatic initiation or when above 10% RATED THERMAL POWER.

b. At least once per 18 months ~~during shutdown~~ by:

1) Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of an Auxiliary Feedwater Actuation test signal, and

2) Verifying that each auxiliary feedwater pump starts as designed automatically upon receipt of an Auxiliary Feedwater Actuation test signal. The provisions of Specification 4.0.4 are not applicable to the turbine driven auxiliary feedwater pump for entry into MODE 3.

PLANT SYSTEMS

3/4.7.3 COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3 At least two independent component cooling water loops shall be OPERABLE.

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

ACTION:

With only one component cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.3 Each component cooling water loop shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position is in its correct position; and

b. At least once per 18 months ~~during shutdown~~, by verifying that:

1) Each automatic valve servicing safety-related equipment actuates to its correct position on its associated engineered safety feature actuation signal, and

2) Each Component Cooling Water System pump starts automatically on a safety injection test signal.