November 2, 1994

Mr. C. Lance Terry
Group Vice President, Nuclear
TU Electric
400 North Olive Street, L.B. 81
Dallas, Texas 75201

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2 - AMENDMENT NOS.31 AND 17 TO FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89 (TAC NOS. M90388 AND M90389)

Dear Mr. Terry:

The Commission has issued the enclosed Amendment Nos. 31 and 17 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 (TS) in response to your application dated September 19, 1994, as supplemented by letter dated October 20, 1994.

The amendments allow a one-time six-month extension for certain emergency diesel generator TS surveillance requirements and other related surveillance requirements. The one-time extension from 18 to 24 months for the affected surveillance requirements is applicable only to Unit 2, Train A, until completion of the second refueling outage for Unit 2.

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-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-445
and 50-446

Enclosures: 1. Amendment No. 31 to NPF-87
2. Amendment No. 17 to NPF-89
3. Safety Evaluation

cc w/encls: See next page

DISTRIBUTION:

Docket File	OGC	EPeyton	DHagan	OPA
Public	GHill(4)	PDIV-1 r/f	CGrimes	RBarrett
OC/LFDCB	WBeckner	ACRS (10)	ABBeach, RIV	
TBergman (2)	JRoe	MFields	JWermiel	

*See previous concurrence
Document Name: CP90388.AMD

OFC	LA/PD4-1	PM/PD4-1	BC/SCSB*	BC/HICB*	OGC
NAME	EPeyton	TBergman/v	RBarrett	JWermiel	
DATE	10/26/94	10/28/94	10/25/94	10/18/94	11/1/94
COPY	YES/NO	YES/NO	YES/NO	YES/NO	YES/NO

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

November 2, 1994

Mr. C. Lance Terry
Group Vice President, Nuclear
TU Electric
400 North Olive Street, L.B. 81
Dallas, Texas 75201

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2 - AMENDMENT NOS. 31 AND 17 TO FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89 (TAC NOS. M90388 AND M90389)

Dear Mr. Terry:

The Commission has issued the enclosed Amendment Nos. 31 and 17 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 (TS) in response to your application dated September 19, 1994, as supplemented by letter dated October 20, 1994.

The amendments allow a one-time six-month extension for certain emergency diesel generator TS surveillance requirements and other related surveillance requirements. The one-time extension from 18 to 24 months for the affected surveillance requirements is applicable only to Unit 2, Train A, until completion of the second refueling outage for Unit 2.

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,

for Thomas A. Bergman, Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

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and 50-446

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3. Safety Evaluation

cc w/encls: See next page

Mr. C. Lance Terry
TU Electric Company

cc:
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P. O. Box 851
Glen Rose, Texas 76043

Office of the Governor
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Environmental Policy
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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. 31
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 19, 1994, as supplemented by letter dated October 20, 1994, 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.31 , 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 its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

for Timothy J. Polich

Thomas A. Bergman, 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: November 2, 1994

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. 17
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 19, 1994, as supplemented by letter dated October 20, 1994, 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.

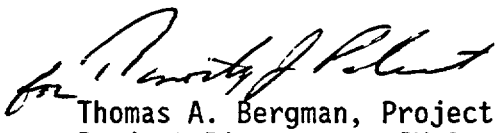
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-89 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Proteciton Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No.17 , 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 its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Thomas A. Bergman, 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: November 2, 1994

ATTACHMENT TO LICENSE AMENDMENT NOS. 31 AND 17

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
3/4 3-14	3/4 3-14
3/4 3-36	3/4 3-36
3/4 5-5	3/4 5-5
3/4 5-8	3/4 5-8
3/4 6-14	3/4 6-14
3/4 7-4	3/4 7-4
3/4 7-13	3/4 7-13
3/4 7-14	3/4 7-14
3/4 7-15	3/4 7-15
3/4 7-20	3/4 7-20
3/4 7-23	3/4 7-23
3/4 7-27	3/4 7-27
3/4 7-28	3/4 7-28
3/4 8-5	3/4 8-5
3/4 8-10	3/4 8-10
3/4 8-18	3/4 8-18

3/4.3.2 ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.2 The Engineered Safety Features Actuation System (ESFAS) instrumentation channels and interlocks shown in Table 3.3-2 shall be OPERABLE with their Trip Setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3-3.

APPLICABILITY: As shown in Table 3.3-2.

ACTION:

a. With an ESFAS Instrumentation or Interlock Trip Setpoint trip less conservative than the value shown in the Trip Setpoint column but more conservative than the value shown in the Allowable Value column of Table 3.3-3, adjust the Setpoint consistent with the Trip Setpoint value.

b. With an ESFAS Instrumentation or Interlock Trip Setpoint less conservative than the value shown in the Allowable Value column of Table 3.3-3, either:

   1. Adjust the Setpoint consistent with the Trip Setpoint value of Table 3.3-3, and determine within 12 hours that Equation 2.2-1 was satisfied for the affected channel, or

   2. Declare the channel inoperable and apply the applicable ACTION statement requirements of Table 3.3-2 until the channel is restored to OPERABLE status with its Setpoint adjusted consistent with the Trip Setpoint value.

Equation 2.2-1 $Z + R + S \leq TA$

Where:

Z = The value from Column Z of Table 3.3-3 for the affected channel,

R = The "as measured" value (in percent span) of rack error for the affected channel,

S = Either the "as measured" value (in percent span) of the sensor error, or the value from Column S (Sensor Error) of Table 3.3-3 for the affected channel, and

TA = The value from Column TA (Total Allowance) of Table 3.3-3 for the affected channel.

c. With an ESFAS instrumentation channel or interlock inoperable, take the ACTION shown in Table 3.3-2.

SURVEILLANCE REQUIREMENTS

4.3.2.1 Each ESFAS instrumentation channel and interlock and the automatic actuation logic and relays shall be demonstrated OPERABLE by performance of the ESFAS Instrumentation Surveillance Requirements specified in Table 4.3-2.

4.3.2.2 The ENGINEERED SAFETY FEATURES RESPONSE TIME of each ESFAS function shall be demonstrated to be within the 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 per N times 18 months where N is the total number of redundant channels in a specific ESFAS function as shown in the "Total No. of Channels" column of Table 3.3-2.

*This surveillance test interval is extended to 24 months for Unit 2, to remain in effect until the completion of the second refueling outage for Unit 2, for the following functions and initiation signals:

- Safety Injection (ECCS), Phase "A" Isolation, Auxiliary Feedwater and Emergency Diesel Generator Operation on Containment Pressure--High--1, Pressurizer Pressure--Low, and Steam Line Pressure--Low;
- Containment Spray Pump on Containment Pressure High--1; and
- Those functions with response times which are initiated by Loss of Power (6.9kV and 480V Safeguards System Undervoltage).

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

CHANNEL FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
5. Turbine Trip and Feedwater Isolation (Continued)								
b. Steam Generator Water Level-High-High	S	R	Q	N.A.	N.A.	N.A	N.A.	1, 2
c. Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
6. Auxiliary Feedwater								
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3
b. Steam Generator Water Level--Low-Low	S	R	Q	N.A.	N.A.	N.A	N.A	1, 2, 3
c. Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
d. Loss-of-Offsite Power	N.A.	R	N.A.	M(3, 4)	N.A.	N.A	N.A	1, 2, 3
e. Trip of All Main Feedwater Pumps	N.A.	N.A.	N.A.	R	N.A.	N.A	N.A	1, 2
7. Automatic Initiation of ECCS Switchover to Containment Sump								
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

CHANNEL FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
7. Automatic Initiation of ECCS Switchover to Containment Sump (Continued)								
b. RWST Level--Low-Low Coincident With Safety Injection	S	SR	Q	N.A.	N.A.	N.A.	N.A.	1, 2, 3, 4
	See Item 1. above for all Safety Injection Surveillance Requirements.							
8. Loss of Power (6.9 kV & 480 V Safeguards System Undervoltage)								
a. 6.9 kV Preferred Offsite Source Undervoltage	N.A.	R*	N.A.	(3, 2)	N.A.	N.A.	N.A.	1, 2, 3, 4
b. 6.9 kV Alternate Offsite Source Undervoltage	N.A.	R*	N.A.	(3, 2)	N.A.	N.A.	N.A.	1, 2, 3, 4
c. 6.9 kV Bus Under-voltage	N.A.	R*	N.A.	(3, 2)	N.A.	N.A.	N.A.	1, 2, 3, 4
d. 6.9 kV Degraded Voltage	N.A.	R*	N.A.	(3, 2)	N.A.	N.A.	N.A.	1, 2, 3
e. 480 V Degraded Voltage	N.A.	R*	N.A.	(3, 2)	N.A.	N.A.	N.A.	1, 2, 3, 4
f. 480 V Low Grid Undervoltage	N.A.	R*	N.A.	(3, 2)	N.A.	N.A.	N.A.	1, 2, 3, 4

*This surveillance test interval is extended to (but not to exceed) 24 months for Train A, Unit 2, to remain in effect until the completion of the second refueling outage for Unit 2.

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

*The surveillance test interval is extended to 24 months for Train A, Unit 2, to remain in effect until the completion of the second refueling outage for Unit 2.

SURVEILLANCE REQUIREMENTS (Continued)

h. By performing a flow balance test, during shutdown, following completion of modifications to the ECCS subsystems that alter the subsystem flow characteristics and verifying that:

1) For centrifugal charging pump lines, with a single pump running:

a) The sum of the injection line flow rates, excluding the highest flow rate, is greater than or equal to 245 gpm, and

b) The total pump flow rate is less than or equal to 560 gpm.

2) For safety injection pump lines, with a single pump running:

a) The sum of the cold leg injection line flow rates, excluding the highest flow rate, is greater than or equal to 400 gpm, and

b) The total pump flow rate is less than or equal to 675 gpm.

3) For RHR pump lines, with a single pump running, the sum of the cold leg injection line flow rates is greater than or equal to 4652 gpm.

i. Prior to entering MODE 3 and following any maintenance or operations activity which drains portions of the system by venting the ECCS pump casing and accessible discharge piping high points.

EMERGENCY CORE COOLING SYSTEMS

3/4.5.3 ECCS SUBSYSTEMS - T_{avg} < 350°F

ECCS SUBSYSTEMS

LIMITING CONDITION FOR OPERATION

3.5.3.1 As a minimum, one ECCS subsystem comprised of the following shall be OPERABLE:

a. One OPERABLE centrifugal charging pump,*

b. One OPERABLE RHR heat exchanger,

c. One OPERABLE RHR pump, and

d. An OPERABLE flow path capable of taking suction from the refueling water storage tank upon being manually realigned and transferring suction to the containment sump during the recirculation phase of operation.

APPLICABILITY: MODE 4.

ACTION:

a. With no ECCS subsystem OPERABLE because of the inoperability of either the centrifugal charging pump or the flow path from the refueling water storage tank, restore at least one ECCS subsystem to OPERABLE status within 1 hour or be in COLD SHUTDOWN within the next 20 hours.

b. With no ECCS subsystem OPERABLE because of the inoperability of either the residual heat removal heat exchanger or RHR pump, restore at least one ECCS subsystem to OPERABLE status or maintain the Reactor Coolant System T_{avg} less than 350°F by use of alternate heat removal methods.

c. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected Safety Injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.

---

*A maximum of two charging pumps shall be OPERABLE whenever the temperature of one or more of the RCS cold legs is less than or equal to 350°F, except when Specification 3.4.8.3 is not applicable.

SURVEILLANCE REQUIREMENTS

4.5.3.1.1 The ECCS subsystem shall be demonstrated OPERABLE per the applicable requirements of Specification 4.5.2.**

4.5.3.1.2 A maximum of two charging pumps shall be OPERABLE except when Specification 3.4.8.3 is not applicable. When required, one charging pump shall be demonstrated inoperable* by verifying that the motor circuit breaker is secured in the open position within 4 hours after entering MODE 4 from MODE 3 or prior to the temperature of one or more of the RCS cold legs decreasing below 325°F, whichever occurs first and at least once per 31 days thereafter.

* An inoperable pump may be energized for testing provided the discharge of the pump has been isolated from the RCS by a closed isolation valve(s) with power removed from the valve operator(s) or by a manual isolation valve(s) secured in the closed position.

**The 18 month surveillance test interval is extended to 24 months for Train A, Unit 2, to remain in effect until the completion of the second refueling outage for Unit 2.

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 The containment isolation valves shall be OPERABLE.#

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

ACTION:

*With one or more of the containment isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and:

a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or

d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.3.1 The containment isolation valves shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test, and verification of isolation time.

#The requirements of Specification 3.6.3 do not apply for those valves covered by Specifications 3.7.1.1, 3.7.1.5, 3.7.1.6, and 3.7.1.7.

*CAUTION: The inoperable isolation valve(s) may be part of a system(s). Isolating the affected penetration(s) may affect the use of the system(s). Consider the technical specification requirements on the affected system(s) and act accordingly.

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.

*The surveillance test interval is extended to 24 months for testing the closure of valve 2-8160 on a Phase "A" isolation test signal (Train A, Unit 2), to remain in effect until the completion of the second refueling outage for Unit 2.

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 At least three independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

a. Two motor-driven auxiliary feedwater pumps, each capable of being powered from separate emergency busses, and

b. One steam turbine-driven auxiliary feedwater pump capable of being powered from two OPERABLE steam supplies.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With one auxiliary feedwater pump or associated flow path inoperable, restore the required auxiliary feedwater pump or associated flow path to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With two auxiliary feedwater pumps or associated flow paths inoperable, be in at least HOT STANDBY witin 6 hours and in HOT SHUTDOWN within the following 6 hours.

c. With three auxiliary feedwater pumps or associated flow paths inoperable, immediately initiate corrective action to restore at least one auxiliary feedwater pump or associated flow path to OPERABLE status as soon as possible.

d. With only one OPERABLE steam supply system capable of providing power to the turbine-driven auxiliary feedwater pump, restore the required OPERABLE steam supplies within 7 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.2 Each auxiliary feedwater pump and associated flow path shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by:

1) Verifying that each motor-driven pump develops a differential pressure of greater than or equal to 1372 psid at a flow of greater than or equal to 430 gpm;

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.

*The surveillance test interval is extended to 24 months for testing the start of the Unit 2, Train A Motor Driven Auxiliary Feedwater Pump upon receipt of an Auxiliary Feedwater Actuation test signal, to remain in effect until the completion of the second refueling outage for Unit 2.

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.

*The surveillance test interval is extended to 24 months for Train A, Unit 2, to remain in effect until the completion of the second refueling outage for Unit 2.

PLANT SYSTEMS

3/4.7.4 STATION SERVICE WATER SYSTEM

OPERATING

LIMITING CONDITION FOR OPERATION

3.7.4.1 At least two independent station service water loops per unit and the cross-connect between the Station Service Water Systems of each unit shall be OPERABLE.

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

ACTION:

a. With only one station service water loop in a unit OPERABLE, restore at least two loops per unit to OPERABLE status within 72 hours or for the unit(s) with the inoperable station service water loop be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With one or more of the cross-connects inoperable, within 7 days restore the cross-connect(s) to OPERABLE status. Otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.4.1.1 Each station service 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 each station service water pump starts automatically on a Safety Injection test signal.

4.7.4.1.2 At least once per 92 days the cross-connects shall be demonstrated OPERABLE by cycling the cross-connect valves in the flow path or verifying that these valves are locked open.

*The surveillance test interval is extended to 24 months for Train A, Unit 2, to remain in effect until the completion of the second refueling outage for Unit 2.

PLANT SYSTEMS

STATION SERVICE WATER SYSTEM

ONE UNIT SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.7.4.2 At least two independent station service water loops in the operating unit*, at least one station service water pump in the shutdown unit** and the cross-connects from the OPERABLE station service water pump(s) in the shutdown unit to the station service water loops of the operating unit shall be OPERABLE.

APPLICABILITY: Unit 1 (Unit 2) in MODES 1, 2, 3 and 4
Unit 2 (Unit 1) in MODES 5, 6 and Defueled

ACTION:

a. With one station service water loop in the operating unit inoperable, restore two loops in the operating unit 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.

b. With one or more of the cross-connects between the OPERABLE station service water pump(s) in the shutdown unit and the station service water loops in the operating unit inoperable, within 7 days restore the cross-connect(s) to OPERABLE status. Otherwise, place the operating unit in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. If neither station service water pump in the shutdown unit is OPERABLE, restore at least one pump to OPERABLE status within 7 days or place the operating unit in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.4.2.1 Each station service water loop in the operating unit shall be demonstrated OPERABLE per the requirements of Specification 4.7.4.1.1.***

4.7.4.2.2 At least once per 92 days the cross-connect(s) between the OPERABLE station service water pump(s) in the shutdown unit and the station service water loops in the operating unit shall be demonstrated OPERABLE by cycling the cross-connect valves in the flow path or verifying that these valves are locked open.

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* A unit in MODE 1, 2, 3 or 4 is designated as the "operating unit".

** A unit in MODE 5, 6 or Defueled is designated as the "shutdown unit".

***The surveillance test interval for the 18 month requirement is extended to 24 months for Train A, Unit 2, to remain in effect until the completion of the second refueling outage for Unit 2.

3/4.7.5 ULTIMATE HEAT SINK

LIMITING CONDITION FOR OPERATION

3.7.5 The ultimate heat sink (UHS) shall be OPERABLE with:

a. A minimum water level at or above elevation 770 feet Mean Sea Level, USGS datum,

b. A station service water intake temperature of less than or equal to 102°F, and

c. A maximum average sediment depth of less than or equal to 1.5 feet in the service water intake channel.

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

ACTION: (Units 1 and 2)

a. With the above requirements for water level and intake temperature not satisfied, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With the average sediment depth in the service water intake channel greater than 1.5 feet, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that provides a record of all surveillances performed pursuant to Specification 4.7.5c and specify what measures will be employed to remove sediment from the service water intake channel.

SURVEILLANCE REQUIREMENTS

4.7.5 The ultimate heat sink shall be determined OPERABLE:

a. At least once per 24 hours by verifying the station service water intake temperature and UHS water level to be within their limits,

b. At least once per 12 months by visually inspecting the dam and verifying no abnormal degradation or erosion, and

c. At least once per 12 months by verifying that the average sediment depth in the service water intake channel is less than or equal to 1.5 feet.

SURVEILLANCE REQUIREMENTS (Continued)

(1) Verifying that the filtration unit satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% by using the test procedure guidance in Regulatory Position C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978*, and the emergency filtration unit flow rate is 8000 cfm ± 10%, and the emergency pressurization unit flow rate is 800 cfm ± 10%;

(2) Verifying within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978*, meets the laboratory testing criteria of Regulatory Position C.6.a Regulatory Guide 1.52, Revision 2, March 1978*, for a methyl iodide penetration of less than 0.2%; and

(3) Verifying an emergency filtration unit flow rate of 8000 cfm ± 10% and an emergency pressurization unit flow rate of 800 cfm ± 10% during system operation when tested in accordance with ANSI N510-1980.

c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978*, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978*, for a methyl iodide penetration of less than 0.2%;

d. At least once per 18 months by:

(1) Verifying that the total pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 8.0 inches water gauge while operating the emergency filtration unit at a flow rate of 8000 cfm ± 10%, and is less than 9.5 inches water gauge while operating the emergency pressurization unit at a flow rate of 800 cfm ± 10%; and

(2) Verifying that the heaters in the emergency pressurization units dissipate 10 ± 1 kW when tested in accordance with ANSI N510-1980;

*ANSI N510-1980 and ANSI N509-1980 shall be used in place of ANSI N510-1975 and ANSI N509-1976, respectively.

3/4.7.7 CONTROL ROOM HVAC SYSTEM

CONTROL ROOM EMERGENCY FILTRATION/PRESSURIZATION SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

e. After each complete or partial replacement of a HEPA filter bank in the emergency filtration unit(s), by verifying that the unit satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the unit at a flow rate of 8000 cfm ± 10%;

f. After each complete or partial replacement of a charcoal adsorber bank in the emergency filtration unit(s), by verifying that the unit satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the unit at a flow rate of 8000 cfm ± 10%;

g. After each complete or partial replacement of a HEPA filter bank in the emergency pressurization unit(s), by verifying that the unit satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the unit at a flow rate of 800 cfm ± 10%.

h. After each complete or partial replacement of a charcoal adsorber bank in the emergency pressurization unit(s), by verifying that the unit satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the unit at a flow rate of 800 cfm ± 10%;

i. At least once per 18 months* by verifying that each Control Room Emergency Filtration/Pressurization System train actuates on an actual or simulated Safety Injection, Loss-of-Offsite Power, or Intake Vent-High Radiation Signal; and

j. At least once per 18 months by verifying that each Control Room Emergency Filtration/Pressurization System train can maintain a positive pressure of ≥ 0.125 inches water gauge, relative to the adjacent areas during the pressurization mode of operation at a makeup flow rate of ≤ 800 cfm.

*The surveillance test interval is extended to 24 months for testing the actuation of the Control Room HVAC system in the emergency recirculation mode on Loss-of-Offsite Power for Train A, Unit 2, to remain in effect until the completion of the second refueling outage for Unit 2.

Revision 2, March 1978*, and verifying the flow rate is 15,000 cfm ± 10% per ESF Filtration Unit when tested in accordance with ANSI N510-1980; and

2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978*, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978*, for a methyl iodide penetration of less than 1.0%;

c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978*, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978*, for a methyl iodide penetration of less than 1.0%;

d. At least once per 18 months by:

1) Verifying that the total pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 8.5 inches water gauge while operating each ESF Filtration Unit at a flow rate of 15,000 cfm ± 10%,

2) Verifying that each ESF Filtration Unit starts on a Safety Injection test signal**,

3) Verifying that the heaters dissipate 100 ± 5 kW when tested in accordance with ANSI N510-1980, and

4) Verifying that the train maintains the negative pressure envelope of the Auxiliary, Safeguards, and Fuel Buildings at a negative pressure of greater than or equal to 0.05 inch water gauge relative to the outside atmosphere;

e. After each complete or partial replacement of a HEPA filter bank, by verifying that the associated ESF Filtration Unit satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1.0% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the associated ESF Filtration Unit at a flow rate of 15,000 cfm ± 10%; and

f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the associated ESF Filtration Unit satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1.0% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the associated ESF Filtration Unit system at a flow rate of 15,000 cfm ± 10%.

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* ANSI N510-1980 and ANSI N509-1980 shall be used in place of ANSI N510-1975 and ANSI N509-1976, respectively.

**The surveillance test interval is extended to 24 months for testing the automatic start of the ESF Filtration Unit on Safety Injection test signal for Train A, Unit 2, to remain in effect until the completion of the second refueling outage for Unit 2.

3/4.7.9 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.9 All snubbers shall be OPERABLE. The only snubbers excluded from the requirements are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed would have no adverse effect on any safety-related system.

APPLICABILITY: MODES 1, 2, 3, and 4. MODES 5 and 6 for snubbers located on systems required OPERABLE in those MODES.

ACTION:

With one or more snubbers inoperable on any system, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation in accordance with the approved augmented inservice inspection program on the attached component or declare the attached system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.9 Each snubber shall be demonstrated OPERABLE by performance of the requirements of the approved augmented inservice inspection program.

PLANT SYSTEMS

3/4.7.11 UPS HVAC SYSTEM

OPERATING

LIMITING CONDITION FOR OPERATION

3.7.11 Two independent UPS HVAC trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION: (Units 1 and 2)

With only one UPS HVAC train OPERABLE, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.11.1 Each UPS HVAC train shall be demonstrated OPERABLE at least once per 18 months* by:

a. Verifying that each UPS HVAC train starts automatically on a Safety Injection test signal.

b. Verifying that each UPS HVAC train starts automatically on a Blackout test signal.

4.7.11.2 Each UPS HVAC train shall be demonstrated OPERABLE at least once per 31 days by starting the non-operating UPS HVAC train and verifying that the train operates for at least 1 hour.

*The surveillance test interval is extended to 24 months for Train A, Unit 2, to remain in effect until the completion of the second refueling outage for Unit 2.

3/4.7.12 SAFETY CHILLED WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.12 At least two independent safety chilled water trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With only one safety chilled water train OPERABLE, restore at least two trains 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

4.7.12 The safety chilled water trains 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.

b. At least once per 18 months* by demonstrating that each safety chilled water train pump, chiller and electrical switchgear area emergency fan coil units start on a Safety Injection test signal.

*The surveillance test interval is extended to 24 months for Train A, Unit 2, to remain in effect until the completion of the second refueling outage for Unit 2.

SURVEILLANCE REQUIREMENTS (Continued)

a) An API Gravity of within 0.3 degrees at 60°F, or a specific gravity of within 0.0016 at 60/60°F, when compared to the supplier's certificate, or an absolute specific gravity at 60/60°F of greater than or equal to 0.8348 but less than or equal to 0.8984, or an API gravity of greater than or equal to 26 degrees but less than or equal to 38 degrees;

b) A kinematic viscosity at 40°C of greater than or equal to 1.9 centistokes, but less than or equal to 4.1 centistokes (alternatively, Saybolt viscosity, SUS at 100°F of greater than or equal to 32.6, but less than or equal to 40.1), if gravity was not determined by comparison with the supplier's certification;

c) A flash point equal to or greater than 125°F;

d) Either a clear and bright appearance with proper color when tested in accordance with ASTM-D4176-1982 or a water and sediment content of less than or equal to 0.05% volume when tested in accordance with ASTM-D1796-1968;

2) By verifying within 30 days of obtaining the sample that the other properties specified in Table 1 of ASTM-D975-1981 are met when tested in accordance with ASTM-D975-1981 except that the analysis for sulfur may be performed in accordance with ASTM-D1552-1979 or ASTM-D2622-1982.

e. At least once every 31 days by obtaining a sample of fuel oil in accordance with ASTM-D2276-1978, and verifying that total particulate contamination is less than 10 mg/liter when checked in accordance with ASTM-D2276-1978, Method A;

f. At least once per 18 months*, during shutdown, by**:

1) Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service;

2) Verifying the generator capability to reject a load of greater than or equal to 783 kW while maintaining voltage at 6900 ± 690 volts and frequency at 60 ± 6.75 Hz;

3) Verifying the generator capability to reject a load of 7000 kW without tripping. The generator voltage shall not exceed 8280 volts during and following the load rejection;

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* The surveillance test interval is extended to 24 months for Train A, Unit 2, to remain in effect until the completion of the second refueling outage for Unit 2.

**For any start of a diesel, the diesel must be operated with a load in accordance with the manufacturer's recommendations. All planned diesel engine starts for the purpose of this surveillance may be preceded by a prelube period in accordance with vendor recommendations.

SURVEILLANCE REQUIREMENTS (Continued)

4) Simulating a loss-of-offsite power by itself, and:

   a) Verifying deenergization of the emergency busses and load shedding from the emergency busses, and

   b) Verifying the diesel starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected shutdown loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady-state voltage and frequency of the emergency busses shall be maintained at 6900 ± 690 volts and 60 ± 1.2 Hz during this test.

5) Verifying that on a Safety Injection Actuation test signal, without loss-of-offsite power, the diesel generator starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 6900 ± 690 volts and 60 ± 1.2 Hz within 10 seconds after the auto-start signal; the steady-state generator voltage and frequency shall be maintained within these limits during this test;

6) Simulating a loss-of-offsite power in conjunction with a Safety Injection Actuation test signal, and:

   a) Verifying deenergization of the emergency busses and load shedding from the emergency busses;

   b) Verifying the diesel starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected emergency (accident) loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady-state voltage and frequency of the emergency busses shall be maintained at 6900 ± 690 volts and 60 ± 1.2 Hz during this test; and

   c) Verifying that all automatic diesel generator trips, except engine overspeed and generator differential, are automatically bypassed upon loss of voltage on the emergency bus concurrent with a Safety Injection Actuation signal.

7) Verifying the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the diesel generator

TABLE 4.8-1

DIESEL GENERATOR TEST SCHEDULE

NUMBER OF FAILURES IN LAST 20 VALID TESTS*	NUMBER OF FAILURES IN LAST 100 VALID TESTS*	TEST FREQUENCY
≤ 1	≤ 4	Once per 31 days
≥ 2**	≥ 5	Once per 7 days

*Criteria for determining number of failures and number of valid tests shall be in accordance with Regulatory Position C.2.e of Regulatory Guide 1.108, but determined on a per diesel generator basis.

For the purpose of determining the required test frequency, the previous test failure count may be reduced to zero if a complete diesel overhaul to like-new condition is completed, provided that the overhaul, including appropriate post-maintenance operation and testing, is specifically approved by the manufacturer and if acceptable reliability has been demonstrated. The reliability criterion shall be the successful completion of 14 consecutive tests in a single series. These tests shall be in accordance with the routine Surveillance Requirements 4.8.1.1.2a.4) and 4.8.1.1.2a.5). If this criterion is not satisfied during the first series of tests, any alternate criterion to be used to transvalue the failure count to zero requires NRC approval.

**The associated test frequency shall be maintained until seven consecutive failure free demands have been performed and the number of failures in the last 20 valid demands has been reduced to one.

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. One circuit between the offsite transmission network and the Onsite Class 1E Distribution System, and

b. One diesel generator with:

1) Day fuel tank containing a minimum volume of 1440 gallons of fuel,

2) A fuel storage system containing a minimum volume of 86,000 gallons of fuel, and

3) A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, movement of irradiated fuel, or crane operation with loads over the fuel storage pool, and within 8 hours, depressurize and vent the Reactor Coolant System through a greater than or equal to 2.98 square inch vent. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the reactor vessel flange, immediately initiate corrective action to restore the required sources to OPERABLE status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the requirements of Specifications 4.8.1.1.1, 4.8.1.1.2* (except for Specification 4.8.1.1.2a.5)), and 4.8.1.1.3.

*The 18 month surveillance test interval is extended to 24 months for Train A, Unit 2, to remain in effect until the completion of the second refueling outage for Unit 2.

ONSITE POWER DISTRIBUTION

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.3.2 As a minimum, the following electrical busses shall be energized in the specified manner:

a. One train of A.C. emergency busses consisting of one 6900-volt and two 480-volt A.C. emergency busses;

b. Two 118-volt A.C. instrument busses (channel-oriented) energized from their associated inverters connected to their respective D.C. busses;

c. One train of A.C. instrument busses consisting of two 118-volt A.C. instrument busses energized from their associated inverters connected to their respective D.C. busses. Busses shall be of the same train as Specifications 3.8.3.2a. and d.; and

d. One train of D.C. busses consisting of two 125-volt D.C. busses energized from their associated battery banks. Busses shall be of the same train as Specifications 3.8.3.2a. and c.

APPLICABILITY: MODES 5 and 6.

ACTION:

With any of the above required electrical busses not energized in the required manner, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, or movement of irradiated fuel, initiate corrective action to energize the required electrical busses in the specified manner as soon as possible, and within 8 hours, depressurize and vent the RCS through at least a 2.98 square inch vent.

SURVEILLANCE REQUIREMENTS

4.8.3.2 The specified busses shall be determined energized in the required manner at least once per 7 days by verifying correct breaker alignment and indicated voltage on the busses.

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

LIMITING CONDITION FOR OPERATION

3.8.4. All containment penetration conductor overcurrent protective devices shall be OPERABLE.

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

ACTION:

With one or more of the containment penetration conductor overcurrent protective device(s) inoperable:

a. Restore the protective device to OPERABLE status or:

1. Deenergize the circuit(s) by racking out, locking open, or removing the inoperable protective device and tripping/removing the associated protective device within 72 hours, declare the affected system or component inoperable, and verify the inoperable protective device racked out, locked open, or removed at least once per 31 days thereafter; the provisions of Specification 3.0.4 are not applicable to overcurrent protective devices in circuits which have their associated protective device tripped/removed and their inoperable protective device racked out, locked open, or removed; or

2. Deenergize the circuit(s) by tripping/removing the associated protective device or racking out, locking open, or removing the inoperable protective device within 72 hours, declare the affected system or component inoperable, and verify the associated protective device to be tripped/removed or the inoperable protective device racked out, locked open, or removed at least once per 7 days thereafter; the provisions of Specification 3.0.4 are not applicable to overcurrent devices in circuits which have their associated protective device tripped/removed or their inoperable protective device racked out, locked open, or removed; or

b. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.4. The containment penetration conductor overcurrent protective devices shall be demonstrated OPERABLE:

a. At least once per 18 months*:

1) By verifying that the medium voltage 6.9 kV and low voltage 480V switchgear circuit breakers are OPERABLE by selecting, on a

*The surveilllance test interval is extended to 24 months for the Train A, Unit 2 switchgear circuit breakers, to remain in effect until the completion of the second refueling outage for Unit 2.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 31 AND 17 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 19, 1994, Texas Utilities Electric Company (TU Electric/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, Units 1 and 2 (CPSES). The proposed changes would revise certain emergency diesel generator technical specification (TS) surveillance requirements (SRs) and other related SRs to allow a one-time, six-month extension of the surveillance interval from 18 to 24 months. The one-time extension from 18 to 24 months for the affected SRs is applicable only to Unit 2, Train A, until the completion of the second refueling outage for Unit 2. Train B of Unit 2, and both trains on Unit 1, will remain on an 18-month surveillance interval. The October 20, 1994, letter provided additional information in response to a request by the staff and did not propose additional changes from those described in the Notice of Consideration of Issuance of Amendment to Facility Operating License and Opportunity for Hearing published in the Federal Register (59 FR 50024 dated September 30, 1994).

2.0 BACKGROUND

During a Unit 2 mid-cycle outage in Spring 1994, TU Electric performed testing on the Unit 2, Train A safety-related systems. The testing performed during this outage included major inspections of the Train A emergency diesel generator (EDG), major Train A engineered safety feature (ESF) testing, and other surveillance tests that are either logically performed as post-work testing for the EDG or because they are best performed when all or most of an electrical train is out-of-service.

The surveillance requirements associated with the above testing are required by TS to be performed on an 18-month surveillance interval. By extending the surveillence interval to 24 months, a major Train A electrical outage can be avoided during the first refueling outage for Unit 2. The specific SRs performed during the Unit 2 mid-cycle outage, and for which the six-month extension is requested, are:

4.3.2.1, Table 4.3-2, Functional Unit 8.1 through 8.f Require a channel calibration for the loss of power channel function for the engineered safety features actuation system (ESFAS).

4.3.2.2 This SR tests the response time for ESFAS. The requested extension applies only to the following functions and initiation signals: (1) safety injection (emergency core cooling system [ECCS]), phase "A" isolation, auxiliary feedwater (AFW) and EDG operation on containment pressure-high-1, pressurizer pressure-low, and steam line pressure-low; (2) containment spray pump on containment pressure-high-1; and (3) those functions with response times that are initiated by loss of power on the 6.9kV and 480V safeguards busses.

4.5.2e and 4.5.3.1.1 These SRs demonstrate the operability of ECCS subsystems.

4.6.3.2a This SR demonstrates containment isolation valve operability.

4.7.1.2b.2 This SR demonstrates the operability of the AFW pump.

4.7.3b This SR demonstrates the operability of the component cooling water (CCW) system.

4.7.4.1.1b This SR demonstrates the operability of the station service water (SSW) pump to start in response to a SI signal.

4.7.4.2.1 This SR demonstrates operability of a SSW loop with one unit shut down per the requirements of SR 4.7.4.1.1.

4.7.7.1i This SR demonstrates operability of the control room emergency filtration/pressurization system to actuate in response to a SI, loss of offsite power (LOOP), or intake vent-high radiation signal. The extension requested by the licensee is only applicable to actuation in response to a LOOP.

4.7.8d.2 This SR demonstrates that the ESF filtration unit starts on a SI test signal.

4.7.11.1 This SR demonstrates the operability of the uninterruptible power supply (UPS) heating-ventilation-air condition system.

4.7.12b This SR demonstrates that the safety chilled water train pump, chiller and electrical switchgear area emergency fan coil units start on a SI test signal.

4.8.1.1.2f and 4.8.1.2 These surveillance requirements demonstrate operability of the EDG.

4.8.4a This SR demonstrates the operability of containment penetration overcurrent protective devices.

For each of the above surveillance requirements, the licensee proposed adding a footnote to the SR that the affected portions of each surveillance requirement would have the test interval extended to 24 months for Train A, Unit 2, until the completion of the second refueling outage for Unit 2.

3.0 EVALUATION

In Generic Letter (GL) 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," the staff provided guidance to licensees on extending cycle-related surveillance requirements to a 24-month periodicity. Although TU Electric did not request to extend the fuel cycle for Unit 2, the guidance in GL 91-04 is germane to the licensee's submittal in that it requests a one-time extension for certain cycle-related SRs for Train A, Unit 2.

Generic Letter 91-04 stated that licensees should (1) evaluate the effect on safety of extending surveillance test intervals from 18 to 24 months, and that this evaluation should support the conclusion that the effect is small; (2) confirm that historical plant maintenance and surveillance data do not invalidate this conclusion; (3) confirm that performance of surveillances at the bounding surveillance interval limit provided to accomodate a 24-month cycle would not invalidate any assumption in the plant licensing basis; and (4) evaluate the effect of increased surveillance intervals on instrumentation drift and safety analysis assumptions.

Item 1: Evaluate Effect on Safety of Extending Surveillance Interval

The licensee stated that the surveillance requirements for which an extension is requested were performed during the spring 1994, Unit 2, mid-cycle outage. Delaying re-performance of these SRs until the second refueling outage, under current plans, would result in an interval slightly beyond the 18-month interval, plus 25 percent, currently allowed by the technical specifications. The licensee noted that although this integrated testing would be extended to 24 months, many of the SRs performed as part of these 18-month surveillances are also satisfied during other surveillance requirements, and quarterly inservice testing (IST) would identify whether some components were functioning properly. In addition, the licensee noted that the proposed one-time extension will reduce the shutdown risk associated with performing the Train A outage during the first refueling outage. Hence, the licensee concluded that the proposed changes will not adversely affect safety.

Item 2: Confirm That Historical Plant Maintenance and Surveillance Data Do Not Invalidate Conclusion

The licensee stated that operational history does not show reliability problems related to this testing.

Item 3: Confirm That Proposed Extension Would Not Violate Assumptions in the Plant Licensing Basis

The licensee stated that the licensing basis was reviewed for any impact caused by the change to a 24-month test interval, and determined that the proposed one-time extensions do not invalidate any assumptions in the plant licensing basis.

Item 4: Evaluate the Effect of Increased Surveillance Intervals on Instrumentation Drift and Safety Analysis Assumptions

The only proposed changes that involve instrumentation drift are those in SR 4.3.2.1, Table 4.3-2, Functional Unit 8.1 through 8.f (Loss of Power). The licensee stated that instrumentation would not drift beyond the specified limits during the extended surveillance interval because CPSES has solid state relays that are less prone to drift, and a review of the Nuclear Plant Reliability Data System (NPRDS) by TU Electric did not identify any history of drift problems for these types of solid state relays. In addition, plant experience with these relays demonstrates that they have not exceeded their specified limits as a result of problems with the relays. TU Electric will also revise the relay setting tolerances to provide more margin between minimum relay settings and the limits specified in TS to ensure that any additional drift caused by the increased surveillance interval will remain well within the TS limits.

The staff reviewed the licensee's evaluation and determined that the items specified in GL 91-04 have been adequately addressed. The staff evaluated the licensee's reliability and instrumentation drift data and concluded that the limited historical data thus far indicates that there have been no reported problems with drift. Based on that fact and the short extension requested (the current surveillance interval 18 month plus the current allowable extension of 4.5 months for a total of 22.5 months) the reliability and drift data would support a one-time extension of these surveillance intervals to a maximum of 24 months without extension. Thus, the staff concludes that the proposed changes to the TS will not endanger public health and safety, and are therefore, 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 surveillance requirements. 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 50024). 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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Date: November 2, 1994