

Mr. C. Lance Terry
 TU Electric
 Senior Vice President & Principal Nuclear Officer
 Attn: Regulatory Affairs Department
 P. O. Box 1002
 Glen Rose, TX 76043

May 22, 1998

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2 -
 AMENDMENT NOS. 60 AND 46 TO FACILITY OPERATING LICENSE NOS.
 NPF-87 AND NPF-89 (TAC NOS. TAC NOS. M92338 AND M92339)

Dear Mr. Terry:

The Commission has issued the enclosed Amendment Nos. 60 and 46 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 (TSs) in response to your application dated May 1, 1995, (TXX-95090).

These amendments would revise section 3/4.8.1 of the Technical Specifications (TS) to reduce the minimum fuel oil volume requirement during MODES 5 and 6 for an operable emergency diesel generator (EDG) and allow continued OPERABLE status of diesel generators during all MODES for 48 hours with greater than a 6 day supply of diesel fuel for a given EDG.

A copy of our related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,
 ORIGINAL SIGNED BY:
 Timothy J. Polich, Project Manager
 Project Directorate IV-1
 Division of Reactor Projects III/IV
 Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

- Enclosures: 1. Amendment No. 60 to NPF-87
 2. Amendment No. 46 to NPF-89
 3. Safety Evaluation

cc w/encls: See next page

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

May 22, 1998

Mr. C. Lance Terry
TU Electric
Senior Vice President & Principal Nuclear Officer
Attn: Regulatory Affairs Department
P. O. Box 1002
Glen Rose, TX 76043

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2 -
AMENDMENT NOS. 60 AND 46 TO FACILITY OPERATING LICENSE
NOS. NPF-87 AND NPF-89 (TAC NOS. M92338 AND M92339)

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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,

A handwritten signature in cursive script, appearing to read "Timothy J. Polich".

Timothy J. Polich, Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosures: 1. Amendment No. 60 to NPF-87
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cc w/encls: See next page

Mr. C. Lance Terry
TU Electric Company

Comanche Peak, Units 1 and 2

cc:

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County Judge
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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. 60
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 May 1, 1995, (TX-95090), 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:

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2. Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 60 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance to be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Timothy J. Polich, Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: May 22, 1998



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. 46
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 May 1, 1995, (TXX-95090), complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-89 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 46 , and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. TU Electric shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance to be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Timothy J. Polich, Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: May 22, 1998

ATTACHMENT TO LICENSE AMENDMENT NOS. 60 AND 46

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

3/4 8-1
3/4 8-3
3/4 8-10
3/4 8-10a
B 3/4 8-1
B 3/4 8-2
B 3/4 8-2a

INSERT

3/4 8-1
3/4 8-3
3/4 8-10
3/4 8-10a
B 3/4 8-1
B 3/4 8-2
B 3/4 8-2a

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following shall be OPERABLE:

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E Distribution System,
- b. Two separate and independent diesel generators, each with:
 - 1) A separate day fuel tank containing a minimum volume of 1440 gallons of fuel, and
 - 2) A separate fuel transfer pump, and
- c. A Fuel Storage System for each diesel generator containing a minimum volume of 86,000 gallons of fuel.

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

ACTION:

- a. With one offsite circuit of the above-required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter. If either diesel generator has not been successfully tested within the past 24 hours, demonstrate its OPERABILITY by performing Surveillance Requirement 4.8.1.1.2a.4) for each such diesel generator, separately, within 24 hours.[#] Restore the offsite circuit 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 either diesel generator inoperable, demonstrate the OPERABILITY of the above required A.C. offsite sources by performing Surveillance Requirement 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter. If the diesel generator became inoperable due to any cause other than preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2a.4) within 24 hours unless the diesel is already operating and loaded.[#] Restore the inoperable diesel generator 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.

[#]During performance of surveillance activities as a requirement for ACTION statements, the air-roll test shall not be performed.

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

- c. With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. offsite source by performing Surveillance Requirement 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter, and, if the diesel generator became inoperable due to any cause other than preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2a.4) within 8 hours*, unless the OPERABLE diesel generator is already operating*. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of 3.8.1.1, ACTION statement a. or b., as appropriate, with the time requirement of the ACTION statement based on the time of initial loss of the remaining inoperable A.C. power source. A successful test of diesel generator OPERABILITY per Surveillance Requirement 4.8.1.1.2a.4) performed under the ACTION statement for an OPERABLE diesel generator or a restored to OPERABLE diesel generator satisfies the diesel generator test requirement of ACTION statement a. or b.
- d. With one diesel generator inoperable, in addition to ACTION b. or c. above, verify that:
1. All required systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generator as a source of emergency power are also OPERABLE, and
 2. When in MODE 1, 2, or 3, the steam-driven auxiliary feedwater pump is OPERABLE.

If these conditions are not satisfied within 2 hours be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- e. With two of the above required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of two diesel generators separately by performing Surveillance Requirement 4.8.1.1.2a.4) within 8 hours unless the diesel generators are already operating*; restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. With only one

*This test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY.

#During performance of surveillance activities as a requirement for ACTION statements, the air-roll test shall not be performed.

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

- offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- f. With two of the above required diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.a. within 1 hour and at least once per 8 hours thereafter; restore at least one of the inoperable diesel generators to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least two diesel generators to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
 - g. With the fuel oil storage system total particulate contamination not within limits, restore total particulate contamination to within limits within 7 days or immediately declare the associated diesel generator inoperable and perform the applicable ACTION for an inoperable diesel generator(s).
 - h. With the properties specified by Surveillance Requirement 4.8.1.1.2d.2 for new fuel oil that has been added to the fuel oil storage inventory not within limits, confirm that the stored fuel oil properties are within limits or restore the stored fuel oil properties to within limits within 30 days or immediately declare the associated diesel generator inoperable and perform the applicable ACTION for an inoperable diesel generator(s).
 - i. With the Fuel Storage System volume less than 86,000 gallons but greater than 74,600 gallons of fuel for a diesel generator, restore the Storage System fuel oil level to a minimum volume of 86,000 gallons within 48 hours or immediately declare the associated diesel generator inoperable and perform the applicable ACTION for an inoperable diesel generator[s].
 - j. With the Fuel Storage System volume equal to 74,600 gallons or less for a diesel generator, immediately declare the diesel generator inoperable and perform the applicable ACTION for an inoperable diesel generator[s].

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the Onsite Class 1E Distribution System shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and
- b. Demonstrated OPERABLE at least once per 18 months during shutdown by transferring (manually and automatically) the 6.9 kV safeguards bus power supply from the preferred offsite source to the alternate offsite source.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

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

- 1) Verifying the fuel level in the day fuel tank,
- 2) Verifying the fuel level in the fuel storage tank,
- 3) Verifying the fuel transfer pump starts and transfers fuel from the storage system to the day fuel tank,
- 4) Verifying the diesel starts from ambient condition and accelerates to at least 441 rpm in less than or equal to 10 seconds.*#

*All planned diesel engine starts for the purpose of this surveillance may be preceded by a prelube period in accordance with vendor recommendations.

#The diesel generator start time (10 seconds) shall be verified at least once per 184 days. All other engine starts for performance of this surveillance, may use a diesel generator start involving gradual acceleration to synchronous speed as recommended by the manufacturer.

TABLE 4.8-1

NOT USED

ELECTRICAL POWER SYSTEMS

A.C. SOURCES

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following shall be OPERABLE:

- a. One circuit between the offsite transmission network and the Onsite Class 1E Distribution System,
- b. One diesel generator with:
 - 1) Day fuel tank containing a minimum volume of 1440 gallons of fuel, and
 - 2) A fuel transfer pump, and
- c. A Fuel Storage System for the OPERABLE diesel generator containing a minimum volume of 75,000 gallons of fuel.

APPLICABILITY: MODES 5 and 6.

ACTION:

- a. 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.
- b. With the fuel oil storage system total particulate contamination not within limits, restore the storage system fuel oil particulate contamination level to within limits within seven (7) days or immediately declare the associated diesel generator inoperable and perform ACTION a. if less than the minimum required A.C. electrical power sources are OPERABLE.
- c. With the properties specified by Surveillance Requirement 4.8.1.1.2d.2 for new fuel oil that has been added to the fuel oil storage inventory not within limits, confirm that the stored fuel oil properties are within limits or restore the stored fuel oil properties to within limits within thirty (30) days or immediately declare the associated diesel generator inoperable and perform ACTION a. if less than the minimum required A.C. electrical power sources are OPERABLE.

ELECTRICAL POWER SYSTEMS

A.C. SOURCES

SHUTDOWN

LIMITING CONDITION FOR OPERATION

- d. With the Fuel Storage System volume less than 75,000 gallons but greater than 65,000 gallons of fuel for the diesel generator, restore the Storage System fuel oil level to a minimum volume of 75,000 gallons within 48 hours or immediately declare the diesel generator inoperable and perform ACTION a.
- e. With the Fuel Storage System volume equal to 65,600 gallons or less, immediately declare the diesel generator inoperable and perform ACTION a.

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 and 4.8.1.1.2* (except for Specification 4.8.1.1.2a.5).

*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.

3/4.8 ELECTRICAL POWER SYSTEMS

BASES

3/4.8.1, 3/4.8.2, and 3/4.8.3 A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION

The OPERABILITY of the A.C. and D.C power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety-related equipment required for: (1) the safe shutdown of the facility, and (2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criterion 17 of 10 CFR 50 Appendix A.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the safety analyses and are based upon maintaining at least one redundant set of onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss-of-offsite power and single failure of the other onsite A.C. source. The A.C. and D.C. source allowable out-of-service times are based on Regulatory Guide 1.93, "Availability of Electrical Power Sources," December 1974 and Generic Letter 84-15, "Proposed Staff Position to Improve and Maintain Diesel Generator Reliability." When one diesel generator is inoperable, there is an additional ACTION requirement to verify that all required systems, subsystems, trains, components and devices, that depend on the remaining OPERABLE diesel generator as a source of emergency power, are also OPERABLE, and that the steam-driven auxiliary feedwater pump is OPERABLE. This requirement is intended to provide assurance that a loss-of-offsite power event will not result in a complete loss of safety function of critical systems during the period one of the diesel generators is inoperable. The term, verify, as used in this context means to administratively check by examining logs or other information to determine if certain components are out-of-service for maintenance or other reasons. It does not mean to perform the Surveillance Requirements needed to demonstrate the OPERABILITY of the component.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that: (1) the facility can be maintained in the shutdown or refueling condition for extended time periods, and (2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit status.

The OPERABILITY of the day fuel tank and Fuel Storage System during MODES 1, 2, 3 and 4, are based on the following: (1) the minimum day fuel tank volume ensures sufficient fuel immediately available to operate the diesel generator at the continuous rating for 60 minutes plus 10 percent, and (2) the remaining day fuel tank volume (between that required for (1) above and the volume specified in the Limiting Conditions for Operation), combined with the minimum specified Fuel Storage System volume, ensures sufficient onsite fuel oil storage capacity to operate the diesel generator at the continuous rating for seven days.

ELECTRICAL POWER SYSTEMS

BASES

A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION (Continued)

With fuel oil total particulate contamination not within the required limits, a period of seven (7) days is allowed for restoring the quality of the fuel oil. Normally, trending of particulate levels allows sufficient time to correct high particulate levels prior to reaching the limit of acceptability. Poor sample procedures, contaminated sampling equipment, and errors in laboratory analysis can produce failures that do not follow a trend. Since the presence of particulates does not mean failure of the fuel oil to burn properly in the diesel engine, and particulate concentration is unlikely to change significantly between Surveillance Frequency intervals, and proper engine performance has been recently demonstrated (within 31 days), it is prudent to allow a brief period prior to declaring the associated DG inoperable. The 7 day Completion Time allows for further evaluation, resampling and re-analysis of the DG fuel oil.

With the new fuel oil properties specified in 4.8.1.1.2d.2) not within the required limits, a period of 30 days is allowed for restoring the stored fuel oil properties. This period provides sufficient time to test the stored fuel oil to determine that the new fuel oil, when mixed with previously stored fuel oil, remains acceptable, or to restore the stored fuel oil properties. This restoration may involve feed and bleed procedures, filtering, or combinations of these procedures. Even if a DG start and load was required during this time interval and the fuel oil properties were outside limits, there is a high likelihood that the DG would still be capable of performing its intended function.

The OPERABILITY of the day fuel tank and Fuel Storage System during MODES 5 and 6, are based on the following: (1) the minimum day fuel tank volume ensures sufficient fuel immediately available to operate the diesel generator at the continuous rating during MODES 5 and 6 for 60 minutes plus 10 percent, and (2) the remaining day fuel tank volume (between that required for (1) above and the volume specified in the Limiting Conditions for Operation), combined with the minimum specified Fuel Storage System volume, ensures sufficient onsite fuel oil storage capacity to operate the diesel generator to power the required electrical loads during shutdown conditions for seven days.

If the 7-day fuel oil supply for a diesel generator is not available, the diesel generator remains OPERABLE while corrective action is taken. However the condition is restricted to fuel oil reductions that maintain at least a 6-day fuel oil supply. These circumstances may be caused by events, such as full load operation required after an inadvertent start while at minimum required level, or feed and bleed operations, which may be necessitated by increasing particulate levels or any number of other oil quality degradations. This restriction allows sufficient time for obtaining the requisite replacement volume and performing the analysis required prior to addition of fuel oil to the tank. A period of 48 hours is considered sufficient to complete restoration of the required level prior to declaring the diesel generator inoperable. This period is acceptable based on the remaining capacity (>6 days), the fact that action will be initiated to obtain replenishment, and the low probability of an event during this brief period.

The Fuel Storage System consists of the fuel oil storage tank and is equivalent to the ANSI N195-1976 definition for supply tank.

ELECTRICAL POWER SYSTEMS

BASES

A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION (Continued)

The Surveillance Requirements for demonstrating the OPERABILITY of the diesel generators are in accordance with the recommendations of Regulatory Guides 1.9, "Selection of Diesel Generator Set Capacity for Standby Power Supplies," March 10, 1971; 1.108, "Periodic Testing Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants," Revision 1, August 1977; and 1.137, "Fuel-Oil Systems for Standby Diesel Generators," January 1978, Generic Letter 84-15, Generic Letter 83-26, "Clarification of Surveillance Requirements for Diesel Fuel Impurity Level Tests," and Generic Letter 94-01, "Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators."

The Surveillance Requirement for demonstrating the OPERABILITY of the station batteries are based on the recommendations of Regulatory Guide 1.129, "Maintenance Testing and Replacement of Large Lead Storage Batteries for Nuclear Power Plants," Revision 1, February 1978, Regulatory Guide 1.32, "Criteria for Safety Related Electric Power Systems for Nuclear Power Plants," Revision 2, February 1977, and IEEE STD 450-1980, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations."

The operational requirement to energize the instrument busses from their associated inverters connected to its associated D.C. bus is satisfied only when the inverter's output is from the regulated portion of the inverter and not from the unregulated bypass source via the internal static switch. The associated inverter is either the dedicated inverter for the instrument bus (protection channel or vital bus) or the installed spare inverter for that train. The design configuration allows the spare inverter to be manually aligned to substitute for any of the four (two protection channel and two vital bus) inverters for the train. Interlocks and procedural controls ensure that the spare inverter feeds the loads of only one inverter at a time and that the power source for the spare inverter is the same as the inverter whose loads are being fed by the spare inverter. Additionally, the associated inverters have ratings suitable to support the maximum load of any of the protection channels or the vital busses.

Verifying average electrolyte temperature above the minimum for which the battery was sized, total battery terminal voltage on float charge, connection resistance values, and the performance of battery service and discharge tests ensures the effectiveness of the charging system, the ability to handle high discharge rates, and compares the battery capacity at that time with the rated capacity.

Table 4.8-2 specifies the normal limits for each designated pilot cell and each connected cell for electrolyte level, float voltage, and specific gravity. The limits for the designated pilot cells float voltage and specific gravity, greater than 2.13 volts and 0.015 below the manufacturer's full charge specific gravity or a battery charger current that had stabilized at a low value, is characteristic of a charged cell with adequate capacity. The normal limits for each connected cell for float voltage and specific gravity, greater than 2.13 volts and not more than 0.020 below the manufacturer's full charge specific gravity with an average specific gravity of all the connected cells not more than 0.010 below the manufacturer's full charge specific gravity, ensures the OPERABILITY and capability of the battery.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 60 AND 46 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 May 1, 1995, (TXX-95090), 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. The proposed changes would revise section 3/4.8.1 of the Technical Specifications (TS) to reduce the minimum fuel oil volume requirement during MODES 5 and 6 for an operable emergency diesel generator (EDG), and allow continued OPERABLE status of diesel generators during all MODES for 48 hours with greater than a 6 day supply of diesel fuel for a given EDG.

2.0 BACKGROUND

The CPSES TS Sections 3.8.1.1 and 3.8.1.2 require declaring the EDG inoperable if the fuel level in the EDG fuel storage system falls below a specified value. This specified value is based on the recommendations of Regulatory Guide (RG) 1.137, Revision 1. This RG assumes that the diesel generator will be operated for seven days at its rated capacity of 7000 KW. When testing the EDG in Modes 5 and 6 it is possible to fall below the minimum required fuel volume; therefore, the testing may require the licensee to declare an EDG inoperable. The current TS make no allowance for the reduced electrical requirements when the plant is in Modes 5 and 6. The licensee is proposing a reduced minimum required volume when the plant is in Modes 5 or Mode 6. No change is proposed for the 7 day fuel oil inventory requirements for Modes 1, 2, 3, or 4. The licensee also proposes to change the TS to allow 48 hours to restore the 7 day fuel supply as long as the fuel supply is maintained greater than the 6 day level.

3.0 EVALUATION

The CPSES Final Safety Analysis Report (FSAR) considers two events regarding EDG loading and fuel oil storage requirements. These events are a loss of offsite power (LOOP) and a loss of coolant accident (LOCA) concurrent with a LOOP. When the plant is in Modes 5 or 6, the LOOP is the bounding event with regard to fuel oil volume.

There are two methods described in RG 1.137, Section C.1.c, to calculate fuel oil storage requirements. The first one assumes that the diesel generator operates continuously for seven days at its rated capacity. The other calculation is based on the time-dependent loads of the

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diesel generator. The calculations for the minimum allowable fuel oil were previously made using the first methodology outlined in RG 1.137, C.1.c and the current minimum required volume was found to be 86,000 gallons. For this amendment request the licensee calculated the minimum required volume using time-dependent load calculational method for Modes 5 and 6. Using this methodology, the licensee assumed that the plant was operating at the time of the LOOP; therefore, the diesel generator will have to carry loads that are not needed when the plant is in Mode 5 or Mode 6. The resulting minimum required volume was 75,000 gallons, using the time-dependent load methodology of RG 1.137 assuming that the LOOP occurred when the plant was in Mode 5 or Mode 6. Therefore, the staff finds the licensee's proposed TS requiring a minimum fuel oil volume of 75,000 gallons when the plant is in either Mode 5 or Mode 6 to be acceptable.

The 6 day fuel oil supply for the EDGs was calculated by the same method used for calculation of the 7 day fuel oil supply. For Modes 1, 2, 3 and 4, the 6 day storage system volume is determined to be 74,600 gallons based on the continuous rating of the diesel generator. For Modes 5 and 6, the 6 day storage system volume was determined to be 65,600 gallons using the time-dependent load methodology of RG 1.137. The licensee proposes to modify the TS to allow the fuel oil level to drop below the 7 day volume (but remain above the 6 day level) for 48 hours before the associated EDG is declared inoperable. These circumstances may be caused by events, such as full load operation required after an inadvertent start while at the minimum required level, or feed and bleed operation which may be necessitated by increasing particulate levels or any number of other oil quality degradations. Since when one diesel generator is declared inoperable the other diesel generator must be tested, this change could eliminate some unnecessary surveillance testing. This change could also prevent unnecessary plant shutdowns due to fuel inventory problems that do not affect the ability of the EDGs to perform their safety functions. A period of 48 hours is considered sufficient to complete restoration of the required level prior to declaring the EDG inoperable (i.e., it allows sufficient time for obtaining the requisite replacement volume and performing the analysis required prior to addition of fuel oil to the tank). This period is acceptable based on the remaining capacity (> 6 days), the fact that action will be initiated to obtain replenishment, and the low probability of an event during this brief period. This proposed action is also in accordance with the Westinghouse Improved Technical Specifications (NUREG 1431). Therefore, the staff finds that the proposal to allow the fuel oil level to drop to 74,600 gallons when in Modes 1, 2, 3, and 4 and 65,600 gallons when in Modes 5 and 6 for 48 hours before declaring the associated EDG inoperable is acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Texas State official was notified of the proposed issuance of the amendments. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there

has been no public comment on such finding (60 FR 32373). 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: May 22, 1998