June 24, 2003

Mr. C. Lance Terry
Senior Vice President
& Principal Nuclear Officer
TXU Energy
ATTN: Regulatory Affairs
P.O. Box 1002
Glen Rose, TX 76043

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES), UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS RE: LIMITED REMOVAL OF SUSPENSION OF POSITIVE REACTIVITY ADDITIONS (TAC NOS. MB6890 AND MB6891)

Dear Mr. Terry:

The Commission has issued the enclosed Amendment No. 105 to Facility Operating License No. NPF-87 and Amendment No. 105 to Facility Operating License No. NPF-89 for CPSES, Units 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated December 4, 2002 (TXX-02201).

The amendments revise several Limiting Conditions for Operation (LCO) Notes and Required Actions in the TSs that require suspension of operations involving positive reactivity additions or suspension of operations involving reactor coolant system boron concentration reductions. The amendments revise these LCO Notes and Required Actions to allow small, controlled, safe insertions of positive reactivity, but limit the introduction of positive reactivity such that compliance with the required shutdown margin or refueling boron concentration limits will still be satisfied. These amendments are based on NRC-approved traveler, Technical Specification Task Force (TSTF)-286, Revision 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,

/RA/

Jack Donohew, Senior Project Manager, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosures:
1. Amendment No. 105 to NPF-87
2. Amendment No. 105 to NPF-89
3. Safety Evaluation

cc w/encls: See next page

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The amendments revise several Limiting Conditions for Operation (LCO) Notes and Required Actions in the TSs that require suspension of operations involving positive reactivity additions or suspension of operations involving reactor coolant system boron concentration reductions. The amendments revise these LCO Notes and Required Actions to allow small, controlled, safe insertions of positive reactivity, but limit the introduction of positive reactivity such that compliance with the required shutdown margin or refueling boron concentration limits will still be satisfied. These amendments are based on NRC-approved traveler, Technical Specification Task Force (TSTF)-286, Revision 2.

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NRR-058

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TXU GENERATION COMPANY LP

COMANCHE PEAK STEAM ELECTRIC STATION, UNIT NO. 1

DOCKET NO. 50-445

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 105
License No. NPF-87

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by TXU Generation Company LP dated December 4, 2002, 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. 105, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. TXU Generation Company LP 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 and shall be implemented within 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Robert A. Gramm, Chief, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: June 24, 2003

TXU GENERATION COMPANY LP

COMANCHE PEAK STEAM ELECTRIC STATION, UNIT NO. 2

DOCKET NO. 50-446

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 105
License No. NPF-89

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by TXU Generation Company LP dated December 4, 2002, 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. 105, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. TXU Generation Company LP 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 and shall be implemented within 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Robert A. Gramm, Chief, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: June 24, 2003

ATTACHMENT TO LICENSE AMENDMENT NO. 105

TO FACILITY OPERATING LICENSE NO. NPF-87

AND AMENDMENT NO. 105

TO FACILITY OPERATING LICENSE NO. NPF-89

DOCKET NOS. 50-445 AND 50-446

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	Insert
3.3-4	3.3-4
3.3-5	3.3-5
3.4-8	3.4-8
3.4-9	3.4-9
3.4-11	3.4-11
3.4-12	3.4-12
3.4-14	3.4-14
3.4-15	3.4-15
3.4-17	3.4-17
3.4-18	3.4-18
3.8-18	3.8-18
3.8-19	3.8-19
3.8-28	3.8-28
3.8-36	3.8-36
3.8-40	3.8-40
3.9-5	3.9-5
3.9-9	3.9-9
3.9-12	3.9-12

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 105 TO

FACILITY OPERATING LICENSE NO. NPF-87

AND AMENDMENT NO. 105 TO

FACILITY OPERATING LICENSE NO. NPF-89

TXU GENERATION COMPANY LP

COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2

DOCKET NOS. 50-445 AND 50-446

1.0 INTRODUCTION

By application dated December 4, 2002, TXU Generation Company LP (the licensee), requested changes to the Technical Specifications (TSs) for Comanche Peak Steam Electric Station, Units 1 and 2 (CPSES). The proposed amendments would revise several Limiting Conditions for Operation (LCO) Notes and Required Actions in the TSs that require suspension of operations involving positive reactivity additions or suspension of operations involving reactor coolant system (RCS) boron concentration reductions. These amendments would revise these Required Actions and LCO Notes to allow small, controlled, safe insertions of positive reactivity, but limit the introduction of positive reactivity such that compliance with the required shutdown margin (SDM) or refueling boron concentration limits will still be satisfied. These amendments are based on a U.S. Nuclear Regulatory Commission (NRC)-approved traveler, Technical Specification Task Force (TSTF)-286, Revision 2.

The licensee included, in Attachment 3 to its application, the changes to the TS Bases that are related to the proposed changes to the TSs.

In the application, the licensee proposed changes to the Notes to LCOs 3.4.5, 3.4.6, 3.4.7, 3.4.8, and 3.9.5, and to Required Actions 3.4.5.D.2, 3.4.6.B.1, 3.4.7.B.1, 3.4.8.B.1, 3.9.3.A.2, 3.9.5.A.1, and 3.9.6.B.1. The licensee had proposed same wording that is in TSTF-286. In reviewing the proposed changes, the staff has decided that the proposed wording could be made clearer, as explained below.

The proposed Notes for the above LCOs, except for LCO 3.9.5, state no "operations are permitted that would cause introduction into the RCS, coolant with boron concentration less than required to meet the SDM of LCO 3.1.1". The staff concludes that the Notes should read that no "operations are permitted that would cause introduction **of coolant into the RCS** with

boron concentration less than required to meet the SDM of LCO 3.1.1". The difference is shown underlined in the application and in **bold** in the staff-requested wording.

For LCO 3.9.5, the Note states no "operations are permitted that would cause introduction into the Reactor Coolant System, coolant with boron concentration less than that required to meet the minimum required boron concentration of LCO 3.9.1." The staff concludes that the Note should read no "operations are permitted that would cause introduction **of coolant into the Reactor Coolant System** with boron concentration less than that required to meet the minimum required boron concentration of LCO 3.9.1." The difference is underlined and in **bold**.

The above proposed Required Actions (except for 3.9.3.A.2, 3.9.5.A.1, and 3.9.6.B.1 below) state "Suspend operations that would cause introduction into the RCS, coolant with boron concentrations less than required to meet SDM of LCO 3.1.1." The staff concludes that the required Actions should read "Suspend operations that would cause introduction **of coolant into the RCS** with boron concentration less than required to meet SDM of LCO 3.1.1." Again the difference is shown underlined and in **bold**.

For proposed Required Actions 3.9.3.A.2, 3.9.5.A.1, and 3.9.6.B.1 state "Suspend operations that would cause introduction into the RCS, coolant with boron concentrations less than required to meet the boron concentration of LCO 3.9.1." The staff concludes that the Required Action should read "Suspend operations that would cause introduction **of coolant into the RCS** with boron concentration less than required to meet the boron concentration of LCO 3.9.1." The difference is again underlined and in **bold**.

The staff believes that the above changes make the statements in the Notes and Required Actions clearer than the words in the application from TSTF 286, Revision 2. This prevents unacceptable reactivity additions to the core.

The staff requested by e-mail that the licensee agree to having the revised wording added to the TSs as part of its proposed license amendment request. The licensee agreed to the revised wording (See Agencywide Documents Access and Management System (ADAMS) Accession No. ML031360748). The revised wording for the above Notes to LCOs and Required Actions accomplish the intended goal of TSTF-286, and the technical reasoning supporting TSTF-286, which is set forth in the following sections of this safety evaluation, also supports the revised wording.

2.0 REGULATORY EVALUATION

The licensee adopted the Improved Technical Specifications (ITS) in License Amendment No. 64 (issued February 26, 1999) for both units, based on NUREG-1431, "Standard Technical Specifications [STS] for Westinghouse Plants," Revision 1, dated April 1995. Since then, industry and the NRC staff have been working to improve the ITS in NUREG-1430 through NUREG-1434 for the different plant vendors and, as a result, generic changes have been developed for the standard ITS in NUREG-1431. Changes to NUREG-1431 would be applicable to CPSES because the TSs for CPSES are based on NUREG-1431.

The proposed changes adopt NRC-approved generic changes in industry TSTF-286, Revision 2 (i.e., TSTF-286), which the staff approved as a revision to the STS in a letter dated July 6, 2000. This TSTF revises most Actions requiring "Suspend operations involving positive reactivity additions" to limit the introduction into the RCS of reactivity more positive than that required to meet the required SDM or refueling boron concentration, as applicable. TSTF-286 provides guidance for licensees to revise their plant TSs and clarify limits on the introduction of reactivity such that the required SDM or refueling boron concentration will be satisfied. The licensee provided plant-specific differences in the TSs for TSTF-286.

As set forth in NUREG-0800, "Standard Review Plan," Section 4.3, "Nuclear Design," which pertains to the review of the nuclear design of the fuel assemblies, control systems, and reactor core, the fuel design limits are not to be exceeded during normal operation or anticipated operational transients, and the effects of postulated reactivity accidents are not to cause significant damage to the reactor coolant pressure boundary (RCPB) or impair the capability to cool the core and assure conformance of the requirements of the following General Design Criteria (GDC) of Appendix A to 10 CFR Part 50:

- GDC 10 requires that specified acceptable fuel design limits not be exceeded during normal operation, including the effects of anticipated operational occurrences.

- GDC 11 requires that in the power operating range, the net effect of the prompt inherent nuclear feedback characteristics tend to compensate for a rapid increase in reactivity.

- GDC 12 requires that power oscillations which could result in conditions exceeding specified acceptable fuel design limits are not possible or can be reliably and readily detected and suppressed.

- GDC 13 requires provision of instrumentation and controls to monitor variables and systems that can affect the fission process over their anticipated ranges for normal operation, anticipated operational occurrences and accident conditions, and to maintain the variables and systems within prescribed operating ranges.

- GDC 20 requires automatic initiation of the reactivity control systems to assure that acceptable fuel design limits are not exceeded as a result of anticipated operational occurrences and to assure automatic operation of systems and components important to safety under accident conditions.

- GDC 25 requires the protection system be designed to assure that no single malfunction of the reactivity control system (which does not include rod ejection or dropout) causes violation of the acceptable fuel design limits.

- GDC 26 requires that two independent reactivity control systems of different design be provided, and that each system have the capability to control the rate of reactivity changes resulting from planned, normal power changes. One of the systems must be capable of reliably controlling AOOs. In addition, one of the systems must be capable of holding the reactor core subcritical under cold conditions.

- GDC 27 requires that the reactivity control systems have a combined capability, in conjunction with poison addition by the emergency core cooling system, of reliably controlling reactivity changes to assure that under postulated accident conditions, with appropriate margin for stuck rods, the capability to cool the core is maintained.

- GDC 28 requires that postulated reactivity accidents do not cause damage to the RCPB greater than limited local yielding, and do not cause sufficient damage to significantly impair the capability to cool the core.

The above requirements involve the fuel design (GDC 10 through 12), the core reactivity instrumentation and control systems (GDC 13, 20, and 25 through 28), and the requirement that the core reactivity control systems and RCS boron concentration are such that the core can be kept subcritical under the minimum cold conditions (GDC 26), because core reactivity increases with decreasing core temperature. For the overall core SDM, there are TS requirements in LCOs 3.1.1 and 3.9.1 that the SDM shall be within the limit provided in the Core Operating Limits Report (COLR) and, during refueling operations, the boron concentrations of all filled portions of the RCS and the refueling canal that have direct access to the reactor vessel, shall be maintained within the limit specified in the COLR. The basis of LCOs 3.1.1 and 3.9.1 is to ensure that postulated reactivity events will not damage the fuel, as required by GDC 26, in that the reactivity of the reactor core at any time must be such that the core can be kept subcritical under the minimum cold conditions.

Because the proposed amendment does not change the fuel to be in the core, or the reactivity instrumentation and controls for the core, the relevant regulatory requirement for the proposed amendment is that, per GDC 26, the SDM for the core must be such that the core, with the RCS boron concentration, can be made subcritical under cold conditions with the existing control systems.

The licensee employs two independent reactivity control systems: one uses the movable control and shutdown rod cluster control assemblies (RCCAs), and the other uses the chemical and volume control system (CVCS) to adjust the soluble boron concentration. In Modes 1 and 2, both systems are used to compensate for the reactivity effects from the fuel and coolant temperature changes in the RCS during power operation from full load to the no load condition. In Modes 3, 4, and 5, the CVCS is used to compensate for the reactivity effects from core temperature and xenon changes. In Mode 6, the CVCS is used to maintain the boron concentration within the required limits.

The SDM limit provides subcritical reactivity margin sufficient to ensure that the specified acceptable fuel design limits (SAFDLs) will not be exceeded for normal shutdown and anticipated operational occurrences (AOOs). The SDM definition assumes that the single RCCA with the highest reactivity worth remains fully withdrawn. In Modes 1 and 2, the TSs satisfy the required SDM (which is the amount of subcriticality that would immediately occur following the insertion of control and shutdown RCCAs that had been withdrawn, assuming the fuel and moderator temperatures are at hot zero power values) by limiting the insertion of the control and shutdown banks. Small reactivity changes due to RCS coolant inventory management and temperature control are also considered in specifying SDM, including moderator temperature coefficient (MTC) effects. In Modes 3, 4, and 5, the TSs specify the

required SDM (which is the reactivity margin by which the reactor will remain subcritical with the RCCAs fully inserted) by reference to the COLR.

In Mode 6, reactor subcriticality margin is ensured by a limit on the boron concentration of all filled portions of the RCS and the refueling pool that have direct access to the reactor vessel.

The TSs would be modified by these amendments to permit the addition of positive reactivity and changes to the RCS boron concentration as long as the change preserves the margin to core criticality as defined by the SDM and refueling boron concentration limit specifications. The limit specifications for the SDM and refueling boron concentration are given in TSs 3.1.1 and 3.9.1, respectively, and specified in the COLR.

The NRC has previously approved the subject change on a plant-specific basis. These previous approvals include, but are not limited, to H.B. Robinson, Unit 2, dated March 14, 2001 (ADAMS Accession No. ML010810282); Callaway, Unit 1, dated May 1, 2002 (ADAMS Accession No. ML020220051); and Wolf Creek, dated July 29, 2002 (ADAMS Accession No. ML021290254).

3.0 TECHNICAL EVALUATION

3.1 Summary and Justification of Proposed Changes

In its application dated December 4, 2002, the licensee requested a change to the TSs for CPSES to revise TS Actions that currently require suspending all operations involving any positive reactivity additions, and to revise TS LCO Notes that preclude any reduction in boron concentration. The proposed changes would allow the introduction of reactivity while maintaining RCS coolant inventory and temperature as long as the required SDM or refueling boron concentration is properly maintained. These necessary operations may involve additions to the RCS of cooler borated water or require makeup from borated sources that have lower boron concentration than the existing RCS boron concentration. These changes would be allowed if the overall effect on core reactivity still assures that the required SDM is maintained.

The proposed amendments would revise various TSs relating to positive reactivity additions while in shutdown modes or in TS 3.3.1, Action G.1, for two inoperable intermediate range neutron flux channels in Modes 1 and 2, above or below certain applicable interlocks. The proposed changes relax the TSs involving positive reactivity additions to the shutdown reactor. The proposed changes would allow small, controlled, safe insertions of positive reactivity while in shutdown modes or when the two required intermediate range neutron flux channels are inoperable.

The proposed changes conform with TSTF-286 except where noted in Section 3.2 below. The proposed changes would revise most of the TS Actions requiring "Suspend operations involving positive reactivity additions" to allow positive reactivity addition, but limit the introduction into the RCS of reactivity more positive than that required to meet either the required SDM or refueling boron concentration, as applicable. The licensee also provided plant-specific differences between the proposed changes and TSTF-286 as part of its application. A correlation of the proposed changes to the complete list of approved TSTF-286 changes was provided by the

licensee. The correlation is summarized in Appendix A to this safety evaluation, and was provided as Attachment 6 to the licensee's application.

3.2 Staff Evaluation

TSTF-286 revises the following in the STSs: (1) Required Actions that require "Suspend operations involving positive reactivity additions," and (2) various Notes precluding reduction in boron concentration. The revised TSs would limit the introduction of positive reactivity into the RCS and maintain the TS-required SDM or refueling boron concentrations, as applicable. Additionally, the Required Actions that require the suspension of positive reactivity changes will have Bases additions that clarify the intent to preclude a loss of required SDM.

The justification given in the TSTF is that the change provides the flexibility necessary to provide for continued safe reactor operations, while also limiting any potential for excess positive reactivity addition to the core. The Required Actions that preclude positive reactivity changes and/or reduction in boron concentration ensure either no power increases, or continued margin to core criticality operations. During conditions in which these Required Actions may be required, various activities for unit operation must be continued, such as the RCS inventory must be maintained and the RCS temperature must be controlled. These activities involve addition to the RCS of cooler water and may involve inventory makeup from sources that are at boron concentrations less than the current RCS concentration, but prohibit the introduction into the RCS of reactivity more positive than that required to meet the required SDM or refueling boron concentration, as applicable.

In Modes 1 through 4, the minimum required SDM is assumed as an initial condition for the reload safety analyses to ensure that the SAFDLs will not be exceeded for normal shutdown and AOOs, assuming that the highest worth RCCA remains stuck out following a reactor scram. The main steamline break is the most limiting event to establish the minimum SDM value for LCO 3.1.1, and this ensures that the departure from nucleate boiling ratio safety limit is not exceeded.

In Modes 3, 4, and 5, the reactivity of the core must be consistent with the initial conditions assumed for the boron dilution accident analysis to ensure the minimum time required for operator action and alarms to terminate the event is met. This is satisfied by complying with the requirements of LCO 3.1.1 for the minimum SDM. Additionally, for Mode 6, the required boron concentration in LCO 3.9.1 ensures subcriticality during refueling operations.

As stated in the Bases for LCO 3.1.1, a sufficient SDM ensures that: (1) the reactor can be made subcritical from all operating conditions, transients, and design basis events; (2) the reactivity transients associated with postulated accident conditions are controllable within acceptable limits; and (3) the reactor will be maintained sufficiently subcritical to preclude inadvertent criticality in the shutdown condition. The Bases for LCO 3.9.1 refueling boron concentration similarly indicate that the limitations on reactivity conditions during refueling ensure that the reactor will remain subcritical during Mode 6 (see Background). Because the proposed changes will not alter the limits established in these specifications, the staff concludes that the proposed changes will have no effect on the licensee's ability to shut down and maintain the reactor in a subcritical condition.

The intent of TSTF-286 is to ensure that, under the specified plant conditions for each operating mode, unplanned power increases or reductions in the margin to core criticality are precluded. The proposed revision to existing TS Notes (i.e., Notes) and the addition of wording to the TS Actions allow the small reactivity variations that result from addition of water with a reduced boron concentration compared to the RCS and temperature changes when forced circulation is not occurring. The proposed changes would only permit the addition of inventory from sources whose boron concentration is sufficient to maintain the required boron concentration if the entire RCS inventory was replaced from the selected source. That is, the source of the water being added must be of high enough boron concentration that the effects of stratification, and subsequent mixing upon restoration of forced flow, cannot result in failure to meet the required boron concentration limits. This limitation addresses potential concerns with stratification and subsequent introduction of the "reduced" concentration borated water into the reactor vessel when forced circulation is re-established. These normal activities are permitted to be performed while maintaining the minimum SDM requirement of LCO 3.1.1 and the minimum boron concentration requirement of LCO 3.9.1.

As a result, regardless of the proposed TS changes to allow the licensee to make controlled additions of positive reactivity not allowed in the current TSs, the plant must still meet LCO 3.1.1 for SDM in Modes 2 (keff < 1) through 5, LCOs 3.1.5 and 3.1.6 in Modes 1 and 2 (keff > 1 and any control bank not fully inserted) for shutdown and control bank insertion limits, and LCO 3.9.1 in Mode 6 for RCS boron concentration. It is in the plant meeting these LCOs, while operators are making controlled additions of positive reactivity changes, that the plant remains in a safe condition. LCOs 3.1.5 and 3.1.6 assure the SDM in Modes 1 and 2, where LCO 3.1.1 is not applicable.

In Attachment 6 of its application, the licensee stated that the TS changes in TSTF-286 apply to CPSES and identified a small number of plant-specific differences to the TS changes to account for the CPSES plant design and operation. The technical analysis for the proposed amendments provided by the licensee follows the justification (above) given in TSTF-286. The plant-specific differences provide the staff the assurance that the initial assumptions of the most limiting accident safety analyses are still maintained, while acknowledging that necessary compensatory activities may still be taken by adding cooler water to the RCS to lower the current temperature, and makeup sources are of borated water at boron concentrations less than the current RCS boron concentration. Such plant operations are described in Section 4.0 of Attachment 1 to the application, including these compensatory activities, and are part of plant procedures, which assure that the overall effect on core reactivity is properly monitored and the required SDM or the required refueling boron concentration is maintained. The required SDM is determined during the reload core design and is ensured during plant operation by the positioning of the RCCA control and shutdown rod banks, and through adjustments of the soluble boron concentration in the reactor coolant.

Attachment 6 to the application summarizes the licensee’s proposed changes, in terms of the TS changes in TSTF-286, that are applicable to NUREG-1431 (i.e., is the proposed change the same as that in the TSTF, or is there a plant-specific design difference). This is repeated in Appendix A to the safety evaluation. Only the changes in TSTF-286 that are applicable to NUREG-1431 are part of these amendments (because the CPSES TSs are based on NUREG-1431). The changes in TSTF-286 applicable to other industry STSs are not discussed. The changes to the TS Bases in TSTF-286 are also not discussed because changes to the

Bases are made in accordance with TS Section 5.5.14, "Technical Specifications (TS) Bases Control Program."

In Appendix A to the safety evaluation, the TS changes in TSTF-286 are broken down into the following categories: (1) deviations from TSTF changes applicable to CPSES that are proposed to be incorporated into the TSs, (2) TSTF changes that are directly applicable to CPSES and proposed as written, (3) TSTF changes applicable to CPSES, but requirements related to the inadvertent boron dilution event analysis need clarification, (4) TSTF changes applicable to CPSES, but proposed with minor editorial changes, (5) a change in addition to those given in TSTF-286, (6) TSTF changes not applicable to CPSES and, therefore, not proposed, and (7) TSTF changes not applicable to NUREG-1431 and, therefore, not applicable to CPSES. The proposed TS changes with the plant-specific differences from the TSTF are the TSTF changes listed as Category (1) and (2) of Appendix A. In the case of plant-specific differences, the licensee's justification for the differences is addressed.

The specific changes proposed by the licensee to the CPSES TSs are evaluated by the staff in Sections (a) through (g) below:

(a) The proposed changes include adding notes to TS 3.3.1, "RPS [Reactor Protection System] Instrumentation," Required Actions G.1 and I.1.

The current Required Actions G.1 and I.1 both state the following: "Suspend operations involving positive reactivity additions." The Note that would be added to these two Required Actions, in accordance with TSTF-286, to allow limited insertions of positive reactivity associated with routine plant operations, states that: "Limited plant cooldown or boron dilution is allowed provided the change is accounted for in the calculated SDM." The licensee, however, proposed that the Notes added to the Actions would state: "Limited boron concentration changes associated with RCS inventory control or limited plant temperature changes are allowed." The licensee stated that its proposed change clarifies the Required Actions for inoperable intermediate range and source range RPS instrumentation channels in Modes 1 and 2, while maintaining the intent of TSTF-286 to allow limited insertions of positive reactivity that are associated with routine plant operations and ensuring that there are no reductions in the margin to core criticality.

The proposed wording is considered a more accurate description of CPSES operations than the references to limited plant cooldown and boron dilution in the TSTF. Reactivity manipulations at CPSES are governed by plant procedures that assure the overall effect on core reactivity is properly monitored and the TS-required reactivity limits (the minimum SDM requirement of LCO 3.1.1 and minimum boron concentration requirement of LCO 3.9.1) are maintained. The application provides the staff the assurance that the initial assumptions of the most limiting accident safety analyses are still maintained. Routine operating evolutions, controlled under plant procedures, may require makeup to the RCS with inventory that is of a different temperature or boron concentration. The licensee has stated that these routine operating evolutions are controlled under plant procedures and, thus, allows the proposed TS change "limited boron concentration changes ... or limited plant temperature changes" to meet the intent of TSTF-286. The proposed change is acceptable because the overall effect on core

reactivity is being monitored and the required refueling boron concentration is being maintained.

Furthermore, the staff finds the wording "temperature changes" refers to the fact that the MTC must be considered both during cooldown and heatup operations. Similarly, the staff finds the wording "limited boron concentration changes associated with RCS inventory control" is more descriptive of operations at CPSES than "boron dilution." These wording changes are more accurate with regard to CPSES's existing design of employing two independent reactivity control systems: one uses the movable control and shutdown RCCAs, and the other uses the CVCS TS, and this additional clarification allows the adoption of TSTF-286.

The TSTF includes a statement in the Note for required Actions G.1 and I.1 that the "change is accounted for in the calculated SDM," which has not been adopted by the licensee. The licensee stated that, in Modes 1 and 2 with $k_{eff} \geq 1.0$, the SDM is not a "calculated" value. Rather, the SDM is assured by operation within the rod insertion limits of LCO 3.1.5 and LCO 3.1.6, and by operating the plant in accordance with the requirements of LCO 3.4.2. These three LCOs are applicable for the same Modes that the two Required Actions are applicable. As stated in the Bases of LCOs 3.1.5 and 3.1.6, the shutdown and control bank insertion limits ensure that the SDM is maintained. This clarification is given in the licensee's proposed Bases discussion of the new Note in which the licensee states that the normal plant operations are not precluded, provided the SDM limits of LCOs 3.1.1, 3.1.5, and 3.1.6 are met.

The licensee's discussion of TSTF-286 adopts the staff's justification of the TSTF with clarifying statements about plant activities during power operation that specifically apply to CPSES operations related to TSTF-286. Because of this and because the plant must still meet the SDM limits of LCOs 3.1.1, 3.1.5, and 3.1.6, even though the phrase "change is accounted for in the ... SDM" is not included in the proposed Notes, the staff finds that the proposed changes, with the plant-specific differences, are acceptable.

(b) The proposed changes include changes to Notes for the following LCOs:

- LCO 3.4.5, "RCS Loops - MODE 3," LCO Note a
- LCO 3.4.6, "RCS Loops - MODE 4," LCO Note 1.a
- LCO 3.4.7, "RCS Loops - MODE 5, Loops Filled," Note 1.a
- LCO 3.4.8, "RCS Loops - MODE 5, Loops Not Filled," Note 1.b

The Notes would be changed to state that "No operations are permitted that would cause introduction of coolant into the RCS with boron concentration less than required to meet the SDM of LCO 3.1.1." These Notes currently state: "No operations are permitted that would cause reduction of the RCS boron concentration." The proposed Notes are intended to preclude dilution of the RCS when no forced mixing (i.e., coolant circulation by residual heat removal (RHR) pumps or reactor coolant pumps) is taking place. The proposed changes allow dilution of the RCS, but the source of boric acid is required to contain a soluble boron concentration greater than that required to meet the SDM requirement of LCO 3.1.1. Therefore, any operations that would add water to the RCS could not dilute the RCS boron concentration below the SDM requirements of

LCO 3.3.1. These proposed changes are corrected versions of the changes in TSTF-286 for the same LCO Notes.

The licensee's discussion of TSTF-286 adopts the staff's justification of the TSTF, and the above changes are corrected versions of the changes in TSTF-286 and are applicable to CPSES. Because of this and because the proposed changes do not allow any operations that would dilute the RCS boron concentration below the SDM requirements of LCO 3.3.1, the staff finds that the proposed changes are acceptable.

(c) The proposed changes include changes to Required Actions for the following TSs:

- TS 3.4.5, "RCS Loops - MODE 3," Required Action D.2
- TS 3.4.6, "RCS Loops - MODE 4," Required Action B.1
- TS 3.4.7, "RCS Loops - MODE 5, Loops Filled," Required Action B.1
- TS 3.4.8, "RCS Loops - MODE 5, Loops Not Filled," Required Action B.1

The proposed changes would revise the Required Actions to state the following: "Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet the SDM of LCO 3.1.1." The current Required Actions state: "Suspend all operations involving a reduction of RCS boron concentration." These Required Actions are intended to preclude dilution of the RCS when no forced mixing is taking place. The proposed changes allow dilution of the RCS, but the source of boric acid is required to contain a soluble boron concentration greater than that required to meet the SDM requirement of LCO 3.1.1. Therefore, any operations that would add water to the RCS could not dilute the RCS boron concentration below the SDM requirements of LCO 3.3.1. These proposed changes are corrected versions of the changes in TSTF-286 for the same Required Actions.

The licensee's discussion of TSTF-286 adopts the staff's justification of the TSTF, and the above changes are corrected versions of the changes in TSTF-286 and are applicable to CPSES. Because of this and because the proposed changes do not allow any operations that would dilute the RCS boron concentration below the SDM requirements of LCO 3.3.1, the staff finds that the proposed changes are acceptable.

(d) The proposed changes include changes to Required Actions for the following TSs:

- TS 3.8.2, "AC [alternating current] Sources - Shutdown," Required Actions A.2.3 and B.3
- TS 3.8.5, "DC [distributed current] Sources - Shutdown," Required Action A.2.3
- TS 3.8.8, "AC Instrument Buses - Shutdown," Required Action A.2.3
- TS 3.8.10, "Distribution Systems - Shutdown," Required Action A.2.3

The proposed Required Actions would state the following: "Suspend operations involving positive reactivity additions that could result in loss of required SDM or boron concentration." These Required Actions currently state: "Initiate action to suspend operations involving positive reactivity additions." These Required Actions are intended to initiate suspension of operations involving positive reactivity additions based on the loss of required electrical sources and distribution equipment. The proposed changes

allow dilution of the RCS, but the source of boric acid is required to contain a soluble boron concentration greater than that required to meet the SDM requirement of LCO 3.1.1 or the refueling boron concentration of LCO 3.9.1. Therefore, any operations that would add water to the RCS could not dilute the RCS boron concentration below the SDM requirements of LCO 3.3.1. or the refueling boron concentration of LCO 3.9.1. The proposed changes will also allow temperature changes that could increase reactivity, provided the reactivity insertions do not result in a loss of required SDM or required refueling boron concentration. These proposed changes are identical to the changes in TSTF-286 for the same Required Actions.

The licensee's discussion of TSTF-286 adopts the staff's justification of the TSTF, and the above changes are identical to the changes in TSTF-286 and are applicable to CPSES. Because of this and because the proposed changes do not allow any (1) operations that would dilute the RCS boron concentration below the SDM requirements of LCO 3.3.1. or the refueling boron concentration of LCO 3.9.1 or (2) temperature changes that would result in a loss of required SDM or required refueling boron concentration, the staff finds that the proposed changes are acceptable.

(e) The proposed Required Action A.2 for TS 3.9.3, "Nuclear Instrumentation," would state the following: "Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet the boron concentration of LCO 3.9.1." This Required Action currently states: "Suspend positive reactivity additions." This Required Action is intended to initiate suspension of operations during refueling operations involving positive reactivity additions when there is a loss of one required source range neutron flux monitor, which thereby renders inoperable the redundant source range neutron flux channel for monitoring core reactivity. The proposed change allows dilution of the RCS, but the source of boric acid is required to contain a soluble boron concentration greater than that required to meet the minimum refueling boron concentration requirement of LCO 3.9.1, which ensures that inadvertent criticality will not occur. Therefore, any operations that would add water to the RCS could not dilute the RCS boron concentration below the refueling boron concentration of LCO 3.9.1. This proposed change also removes the implicit limitation on temperature changes that could result in a positive reactivity addition; however, no limitation on temperature change-induced reactivity insertion is needed, because the appropriate SDM in Mode 6 is maintained by compliance with LCO 3.9.1. This proposed change is a corrected version of the change in TSTF-286 for this Required Action.

The licensee's discussion of TSTF-286 adopts the staff's justification of the TSTF, and this change is a corrected version of the change in TSTF-286 and is applicable to CPSES. This proposed change also removes the implicit limitation on temperature changes that could result in a positive reactivity addition; however, no limitation on temperature change-induced reactivity insertion is needed, because the appropriate SDM in Mode 6 is maintained by compliance with LCO 3.9.1. Because of the above, and because the proposed change does not allow dilution of the RCS below the refueling boron concentration of LCO 3.9.1, the staff finds that the proposed changes are acceptable.

(f) The proposed Note for LCO 3.9.5, "Residual Heat Removal (RHR) and Coolant Circulation - High Water Level," would state the following: "The required RHR loop may be removed from operation for $\leq$ 1 hour per 8 hour period, provided no operations are permitted that would cause introduction of coolant into the Reactor Coolant System with boron concentration less than that required to meet the minimum required boron concentration of LCO 3.9.1." This LCO Note currently states: "The required RHR loop may be removed from operation for $\leq$ 1 hour per 8 hour period, provided no operations are permitted that would cause reduction of the Reactor Coolant System boron concentration." This Note is intended to preclude dilution of the RCS when no forced mixing is taking place during refueling. The proposed changes allow dilution of the RCS, but the source of boric acid is required to contain a soluble boron concentration greater than that required to meet the minimum refueling boron concentration requirement of LCO 3.9.1, which ensures that inadvertent criticality will not occur. Therefore, any operations that would add water to the RCS could not dilute the RCS boron concentration below the refueling boron concentration of LCO 3.9.1. This proposed change is a corrected version the change in TSTF-286 for the same LCO Note.

The licensee's discussion of TSTF-286 adopts the staff's justification of the TSTF, and the above changes are a corrected version of the changes in TSTF-286 and are applicable to CPSES. Because of this and because the proposed changes do not allow dilution of the RCS below the refueling boron concentration of LCO 3.9.1, which ensures that inadvertent criticality will not occur, the staff finds that the proposed changes are acceptable.

(g) The proposed changes include changes to Required Actions for the following TSs:

- TS 3.9.5, "RHR and Coolant Circulation - High Water Level," Required Action A.1
- TS 3.9.6, "RHR and Coolant Circulation - Low Water Level," Required Action B.1

The proposed Required Actions would state the following: "Suspend operations that would cause introduction of coolant into the RCS with boron concentration less than required to meet the boron concentration of LCO 3.9.1." These Required Actions currently state: "Suspend operations involving a reduction in reactor coolant boron concentration." These Required Actions are intended to preclude dilution of the RCS when no forced mixing is taking place during refueling. The proposed changes allow dilution of the RCS, but the source of the boric acid is required to contain a soluble boron concentration greater than that required to meet the minimum refueling boron concentration requirement of LCO 3.9.1, which ensures that inadvertent criticality will not occur. Therefore, any operations that would add water to the RCS could not dilute the RCS boron concentration below the refueling boron concentration of LCO 3.9.1. These proposed changes are corrected versions of the changes in TSTF-286 for the same Required Actions.

The licensee's discussion of TSTF-286 adopts the staff's justification of the TSTF, and the above changes are corrected versions of the changes in TSTF-286 and are

applicable to CPSES. Because of this and because the proposed changes do not allow dilution of the RCS below the refueling boron concentration of LCO 3.9.1, which ensures that inadvertent criticality will not occur, the staff finds that the proposed changes are acceptable.

3.3 Conclusion

The NRC staff has reviewed the licensee's application with the supporting documentation. Based on its review and the reasons set forth above, the NRC staff concludes that the proposed TS changes are not changing (1) the design of the fuel to be used in the core to generate power (i.e., as required by GDC 10 through 12), (2) the core reactivity instrumentation and control systems to monitor the fission process in the core and respond to transients (i.e., as required by GDC 13, 20, and 25 through 28), and (3) the SDM (Modes 1 through 5) and refueling boron concentration (Mode 6) requirements such that the reactivity of the reactor core at any time is such that the core can be kept subcritical under the minimum cold conditions (as required by GDC 26). The proposed TS changes only relax requirements on operating the plant under certain conditions where existing requirements would not allow the licensee to increase core reactivity. The proposed TS changes would allow the licensee to increase core reactivity, but not to exceed the requirements of LCOs 3.1.1 and 3.9.1.

The proposed TS changes are consistent with the approved TSTF-286, which is applicable to CPSES and takes into account plant-specific design differences discussed above, and the justification for TSTF-286 changes is applicable to CPSES and continues to ensure that the required minimum SDM of LCO 3.1.1 and boron concentration of LCO 3.9.1 to preclude inadvertent criticality are met. Based on the above, and because the licensee's proposed amendments will still require the minimum SDM and boron concentration to be maintained and does not change the fuel design or the core reactivity instrumentation and control systems, the staff concludes that CPSES continues to meet the requirements of GDC 26, and the proposed amendments are acceptable.

The licensee provided the associated TS Bases that reflect the proposed TS changes as an attachment to its application. The Bases changes are implemented and controlled by the licensee pursuant to TS Section 5.5.14. Because the TS Bases changes are consistent with the TSTF-286 changes and the licensee's proposed plant-specific TS changes, the staff has no objections to the Bases changes presented in the licensee's application.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Texas State official was notified of the proposed issuance of the amendment. 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 (68 FR 813, published January 7, 2003). 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.

Principal Contributor: Jack Donohew

Date: June 24, 2003

APPENDIX A

A CORRELATION OF PROPOSED CHANGES TO APPROVED TSTF-286, REVISION 2

The following was provided by the licensee in Attachment 6 to its application dated December 4, 2002, and is reproduced below verbatim from the application. The following acronyms are used: Alternating Current (AC), Boron Dilution Protection System (BDPS), Control Room Isolation Signal (CRIS), Core Operating Limits Report (COLR), Decay Heat Removal (DHR), Distributed Current (DC), Improved Technical Specifications (ITS), Final Safety Analysis Report (FSAR), Limiting Condition for Operation (LCO), Reactor Coolant Pump (RCP), Reactor Coolant System (RCS), Residual Heat Removal (RHR), Reactor Trip System (RTS), Shutdown Cooling (SDC), Shutdown Margin (SDM), Surveillance Requirement (SR), and Technical Specifications (TSs):

> The following TSTF-286 [TS] changes are applicable to Comanche Peak [Steam Electric Station, Units 1 and 2], but required some additional justification or clarification before incorporation, as discussed in Section 2.0 of Attachment 1, "Description of Proposed Amendment," [of the licensee's application]. These deviations from TSTF-286, Revision 2, are identical to those previously approved for H. B. Robinson [Steam Electric Plant], Unit 2 [in Amendment No. 190 dated March 14, 2001,] with an additional reference in the [TS] 3.3.1 Action G.1 Bases changes to the COLR, since that document specifies the SDM limits:
>
> - 3.3.1 Action G.1 RTS Instrumentation
> - 3.3.1 Action G.1 Bases RTS Instrumentation
> - 3.3.1 Action I.1 RTS Instrumentation
> - 3.3.1 Action I.1 Bases RTS Instrumentation
>
> The following TSTF-286 TS changes are directly applicable to Comanche Peak and are therefore incorporated identically as written in the traveler [(i.e., TSTF-286)]:
>
> - 3.4.5 LCO Note a RCS Loops – MODE 3
> - 3.4.5, Action D.2 RCS Loops – MODE 3
> - 3.4.6, LCO Note 1.a RCS Loops – MODE 4
> - 3.4.6, Action B.1 RCS Loops – MODE 4
> - 3.4.7, LCO Note 1.a RCS Loops – MODE 5, Loops Filled
> - 3.4.7, Action B.1 RCS Loops – MODE 5, Loops Filled
> - 3.4.8, LCO Note 1.b RCS Loops – MODE 5, Loops Not Filled
> - 3.4.8, Action B.1 RCS Loops – MODE 5, Loops Not Filled
> - 3.8.2, Action A.2.3 AC Sources – Shutdown
> - 3.8.2, Action B.3 AC Sources – Shutdown
> - 3.8.5, Action A.2.3 DC Sources – Shutdown
> - 3.8.8, Action A.2.3 Inverters – Shutdown
> - 3.8.10, Action A.2.3 Distribution Systems – Shutdown
> - 3.9.1, Action A.3 Bases Boron Concentration
> - 3.9.3, Action A.2 Nuclear Instrumentation
> - 3.9.5, LCO Note RHR and Coolant Circulation – High Water Level

- 3.9.5, Action A.1 RHR and Coolant Circulation – High Water Level
- 3.9.6, Action B.1 RHR and Coolant Circulation – Low Water Level

The following TSTF-286 TS changes are applicable to Comanche Peak; however, requirements related to the analysis of an inadvertent boron dilution event need clarification. For example, sentences detailing the requirement to have at least one RCP in operation to satisfy the mixing requirements for the inadvertent boron dilution event are retained. These sentences were added during the ITS conversion and are consistent with the analysis basis, as further discussed in TS 3.3.9 and FSAR Section 15.4.6. Clarification is added regarding the equipment credited during various operating MODES. In addition, during those times when one source range neutron flux channel is inoperable and during loss of RCS flow conditions, limitations on the RCS makeup sources to satisfy SDM limits and administrative controls to be in place during all reactivity manipulations while one source range neutron flux channel is inoperable are added to prudently recognize the potential for an initiating event, analysis assumptions and initial conditions, and the reduced mitigative capability for an inadvertent boron dilution event.

- 3.3.1, Condition K Bases RTS Instrumentation
- 3.3.1, References RTS Instrumentation
- 3.4.5, LCO Note 1.a Bases RCS Loops – MODE 3
- 3.4.5, Action D.2 Bases RCS Loops – MODE 3
- 3.4.6, LCO Note 1.a Bases RCS Loops – MODE 4
- 3.4.6, Action B.1 Bases RCS Loops – MODE 4
- 3.4.7, LCO Note 1.a Bases RCS Loops – MODE 5, Loops Filled
- 3.4.7, Action B.1 Bases RCS Loops – MODE 5, Loops Filled
- 3.4.8, LCO Note 1.b Bases RCS Loops – MODE 5, Loops Not Filled
- 3.4.8, Action B.1 Bases RCS Loops – MODE 5, Loops Not Filled

The following TSTF-286 TS changes are applicable to Comanche Peak and are incorporated with minor editorial changes identical to those previously approved for H.B. Robinson, Unit 2:

- 3.8.2, Action A.2.3 Bases AC Sources – Shutdown
- 3.8.2, Action B.3 Bases AC Sources – Shutdown
- 3.8.5, Action A.2.3 Bases DC Sources – Shutdown
- 3.8.8, Action A.2.3 Bases Inverters – Shutdown
- 3.8.10, Action A.2.3 Bases Distribution Systems – Shutdown
- 3.9.1, Action A.2 Bases Boron Concentration
- 3.9.3, Action A.2 Bases Nuclear Instrumentation
- 3.9.5, LCO Note Bases RHR and Coolant Circulation – High Water Level
- 3.9.5, Action A.1 Bases RHR and Coolant Circulation – High Water Level
- 3.9.6, Action B.1 Bases RHR and Coolant Circulation – Low Water Level

The following change is in addition to those contained in TSTF-286; however, it is directly related to the TSTF-286 change to the [TS] 3.9.3, Action A.2 Bases, as discussed in Section 2.0 of Attachment 1, "Description of Proposed Amendment," [of the licensee's application]. This was an oversight in TSTF-286. The list of affected TS in TSTF-286 included "Action 3.9.3.B Bases, Nuclear Instrumentation, NUREG-1431

Only"; however, there were no changes to the [TS] Action 3.9.3.B Bases marked on page B 3.9-9 of the traveler.

- 3.9.3, Action B.2 Bases Nuclear Instrumentation

The following TSTF-286 TS changes are not applicable to Comanche Peak and are therefore not incorporated:

- 3.3.1, Action L.1 RTS Instrumentation
- 3.3.1, Action L.1 Bases RTS Instrumentation
- 3.3.9, Action B.1 BDPS
- 3.3.9, Action B.1 Bases BDPS
- 3.4.18, LCO Note a RCS Isolated Loop Startup
- SR 3.4.18.2 RCS Isolated Loop Startup
- 3.4.18, Background Bases RCS Isolated Loop Startup
- SR 3.4.18.2, Bases RCS Isolated Loop Startup

The following changes in the list of affected TS in TSTF-286 are not applicable to NUREG-1431 (Westinghouse [Electric Company] plants) and are, therefore, not incorporated:

- Action 3.4.5.C RCS Loops – MODE 3
- Action 3.4.5.C Bases RCS Loops – MODE 3
- Action 3.9.2.A Nuclear Instrumentation
- Action 3.9.2.A Bases Nuclear Instrumentation
- Action 3.9.2.B Bases Nuclear Instrumentation
- Action 3.3.9.B Source Range Neutron Flux
- Action 3.3.9.B Bases Source Range Neutron Flux
- Action 3.3.10.B Intermediate Range Neutron Flux
- Action 3.3.10.B Bases Intermediate Range Neutron Flux
- LCO 3.9.4 DHR and Coolant Circulation - High Water Level
- LCO 3.9.4 Bases DHR and Coolant Circulation - High Water Level
- Action 3.9.4.A DHR and Coolant Circulation – High Water Level
- Action 3.9.4.A Bases DHR and Coolant Circulation – High Water Level
- Action 3.9.5.B DHR and Coolant Circulation – Low Water Level
- Action 3.9.5.B Bases DHR and Coolant Circulation – Low Water Level
- Action 3.3.8.A Bases CRIS (Analog)
- Action 3.3.8.C CRIS (Analog)
- Action 3.3.9.A Bases CRIS (Digital)
- Action 3.3.9.C CRIS (Digital)
- Action 3.3.13.A [Logarithmic] Power Monitoring Channels (Analog)
- Action 3.3.13.A [Logarithmic] Power Monitoring Channels (Digital)
- Action 3.3.13.A Bases [Logarithmic] Power Monitoring Channels Analog)
- Action 3.3.13.A Bases [Logarithmic] Power Monitoring Channels (Digital)
- LCO 3.9.4 SDC and Coolant Circulation – High Water Level
- LCO 3.9.4 Bases SDC and Coolant Circulation – High Water Level
- Action 3.9.4.A SDC and Coolant Circulation – High Water Level
- Action 3.9.4.A Bases SDC and Coolant Circulation – High Water Level
- Action 3.9.5.B SDC and Coolant Circulation – Low Water Level
- Action 3.9.5.B Bases SDC and Coolant Circulation – Low Water Level