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

June 22, 2021

Mr. Ken J. Peters
Senior Vice President and
Chief Nuclear Officer
Attention: Regulatory Affairs
Vistra Operations Company LLC
Comanche Peak Nuclear Power Plant
6322 N FM 56
P.O. Box 1002
Glen Rose, TX 76043

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2 – SUPPLEMENTAL INFORMATION NEEDED FOR ACCEPTANCE OF REQUESTED LICENSING ACTION RE: LICENSE AMENDMENT REQUEST TO ADOPT TSTF-505, REVISION 2, "PROVIDE RISK-INFORMED EXTENDED COMPLETION TIMES - RITSTF INITIATIVE 4b" (EPID L-2021-LLA-0085)

Dear Mr. Peters:

By letter dated May 11, 2021, Vistra Operations Company LLC (Vistra OpCo, the licensee) submitted a license amendment request (LAR) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21131A233) for Comanche Peak Nuclear Power Plant, Unit Nos. 1 and 2 (Comanche Peak). The proposed LAR would adopt Technical Specifications Task Force (TSTF) traveler TSTF-505, Revision 2, "Provide Risk-Informed Extended Completion Times – RITSTF [Risk-Informed TSTF] Initiative 4b" (ADAMS Accession No. ML18183A493).

The purpose of this letter is to provide the results of the U.S. Nuclear Regulatory Commission (NRC) staff's acceptance review of this amendment request. The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to complete its detailed technical review. The acceptance review is also intended to identify whether the application has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the plant.

Consistent with Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), an application for an amendment to a license (including the technical specifications) must fully describe the changes requested, and following as far as applicable, the form prescribed for original applications. Section 50.34 of 10 CFR addresses the content of technical information required. This section stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations.

The NRC staff has reviewed your application and concluded that the information delineated in the enclosure to this letter is necessary to enable the staff to make an independent assessment regarding the acceptability of the proposed amendment in terms of regulatory requirements for the protection of public health and safety and the environment.

In order to make the application complete, the NRC staff requests that Vistra OpCo supplement the application to address the information requested in the enclosure by July 15, 2021. This will enable the NRC staff to begin its detailed technical review. If the information responsive to the NRC staff's request is not received by the above date, the application will not be accepted for review pursuant to 10 CFR 2.101, and the NRC will cease its activities associated with the application. If the application is subsequently accepted for review, you will be advised of any further information needed to support the NRC staff's detailed technical review by separate correspondence.

The information requested and associated timeframe in this letter were discussed with Jack Hicks of your staff on June 22, 2021.

If you have any questions, please contact the me at (301) 415-6256 or by e-mail to Dennis.Galvin@nrc.gov.

Sincerely,

/RA/

Dennis J. Galvin, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosure:
Supplemental Information Needed

cc: Listserv

SUPPLEMENTAL INFORMATION NEEDED

LICENSE AMENDMENT REQUEST TO ADOPT TSTF-505, REVISION 2, "PROVIDE RISK-INFORMED EXTENDED COMPLETION TIMES - RITSTF INITIATIVE 4B"

VISTRA OPERATIONS COMPANY LLC

COMANCHE PEAK NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-445 AND 50-446

By letter dated May 11, 2021, Vistra Operations Company LLC (the licensee) submitted a license amendment request (LAR) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21131A233) for Comanche Peak Nuclear Power Plant, Unit Nos. 1 and 2 (Comanche Peak or CPNPP). The proposed LAR would adopt Technical Specifications Task Force (TSTF) traveler TSTF-505, Revision 2, "Provide Risk-Informed Extended Completion Times – RITSTF [Risk-Informed TSTF] Initiative 4b" (ADAMS Accession No. ML18183A493). The U.S. Nuclear Regulatory Commission (NRC) staff has identified that the following information is needed to begin its technical review:

Acceptance Review Information Insufficiencies

1. LAR Enclosure 7, "PRA [Probabilistic Risk Assessment] Model Update Process," Section 2.2, "Review of Plant Changes for Incorporation into the PRA Model," Item 3 proposes a standard frequency of 48 months for PRA model updates; however, Nuclear Energy Institute (NEI) report NEI 06-09, "Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines," Section 2.3.4, "PRA Technical Adequacy," Item 7.1 (ADAMS Package Accession No. ML122860402) states that the PRA shall be maintained and updated on a periodic basis not to exceed two refueling cycles. Comanche Peak has a nominal 18-month refueling cycle which, according to NEI 06-09, should bound the PRA update to every 36 months. Provide an explanation and justification for the inconsistency between the PRA model update frequency proposed in the LAR and frequency in NEI 06-09.

2. LAR Enclosure 1, "List of Revised Required Actions to Corresponding PRA Functions," Table E1-1, "In Scope TS/LCO [Technical Specification/Limiting Condition of Operation] to Corresponding PRA Functions," does not provide information on the PRA success criteria for TS Condition 3.7.4.C, "Three or more required ARV [atmospheric relief valve] lines inoperable." Provide the applicable PRA success criteria.

3. LAR Enclosure 1, Table E1-2, "In Scope TS/LCO Conditions RICT [Risk-Informed Completion Time] Estimate," does not provide an RICT estimate for TS Condition 3.4.9.B, "One required group of pressurizer heaters inoperable." Provide a RICT for this TS.

4. In Section 3.1.2.3, "Evaluation of Instrumentation and Control Systems," of the TSTF-505, Revision 2, Model Safety Evaluation, the NRC clarifies the basis of the NRC staff's safety evaluation is to consider "a number of potential plant conditions allowed by the new TSs" and to consider "what redundant or diverse means were available to assist

the licensee in responding to various plant conditions." TSTF-505, Revision 2, Enclosure 1, states that the description of proposed changes to the protective instrumentation and control features in TS Section 3.3, "Instrumentation," should confirm that at least one redundant or diverse means (e.g., other automatic features or manual action) to accomplish the safety functions (e.g., reactor trip, safety injection, or containment isolation) remain available during the use of the RICT.

In addition, RG 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," Revision 2, dated May 2011 (ADAMS Accession No. ML100910006), states that the licensee should "assess whether the proposed LB [licensing basis] change meets the defense-in-depth principle" by not over-relying on programmatic activities as compensatory measures associated with the change in the LB. RG 1.174, Revision 3, dated January 2018 (ADAMS Accession No. ML17317A256), further elaborates that human actions (e.g., manual system actuation) are considered as one type of compensatory measure.

This LAR, however, does not provide a defense-in-depth assessment to address these guidelines for each proposed RICT TS. Describe the defense-in-depth for instrumentation and control features per the guidelines in TSTF-505, Revision 2, Enclosure 1.

5. The licensee stated in the LAR that "[t]he proposed amendment is consistent with TSTF-505, Revision 2." TSTF-505, Revision 2, excludes loss of function (LOF) conditions, in which there is insufficient operable equipment to meet the safety function of the system, from the RICT program.

   The NRC staff identified TS Conditions that appear to include LOF based on the data in columns "Tech Spec Description" and "Design Success Criteria" in Table E1-1:

   - 3.3.1.P One or more Turbine Stop Valve Closure Turbine Trip channel(s) inoperable.
   - 3.3.5.B Two channels per bus for the Preferred offsite source bus undervoltage function inoperable.
   - 3.3.5.C Two channels per bus for the Alternate offsite source bus undervoltage function inoperable.
   - 3.3.5.D Two channels per bus for the 6.9 kV [kilovolt] bus loss of voltage function inoperable.
   - 3.3.5.E Two channels per bus for one or more degraded voltage or low grid undervoltage function inoperable.
   - 3.3.5.F One or more Automatic Actuation Logic and Actuation Relays trains inoperable.
   - 3.4.11.C One block valve inoperable.
   - 3.7.4.C Three or more required ARV lines inoperable.

   While the LAR provides a justification for inclusion in the RICT program for several of these TS conditions, the justification does not address LOF. Justify that the proposed TS changes preclude LOF conditions or modify the proposed TS changes to remove LOF conditions from the RICT program. For TS conditions that have the potential to encompass a LOF situation, the NRC staff notes that TSTF-505, Revision 2, Section 2.3, "Scope," and Table 1, "Conditions Requiring Additional Technical Justification," Note 1

identify an optional note that might be proposed to limit the use of a RICT in these situations.

6. TSTF-505, Revision 2, Table 1, NUREG-1431, Westinghouse STS [Standard Technical Specifications]," requires additional justification for the following TS conditions listed below. The markup pages in TSTF-505, Revision 2, also indicate that additional technical justification is needed for these TS conditions.

    - 3.3.1.D One Power Range Neutron Flux – High channel inoperable.
    - 3.3.1.S One RTB [reactor trip breaker] train inoperable.
    - 3.4.9.B One required group of pressurizer heaters inoperable.
    - 3.6.2.C One or more containment air locks inoperable for reasons other than Condition A or B.
    - 3.6.6.A One containment spray train inoperable.
    - 3.7.2.A One MSIV [Main Steam Isolation Valve] inoperable in MODE 1.
    - 3.7.4.B Two required ARV lines inoperable.

    The LAR does not contain such technical justification on changes to these conditions. Provide the additional justification for these conditions in accordance with TSTF-505, Revision 2.

7. Condition 3.7.8.A, "Required SSW Pump on the opposite unit or its associated cross-connects inoperable," and the Required Actions A.1 and A.2 are plant-specific and per the TSTF-505, Revision 2 model application, a description of the variation and a justification of the applicability of TSTF-505 are required. LAR Attachment 1, "Description and Assessment of the Proposed Changes," Section treats Condition 3.7.8.A as an administrative difference, which is for differences in numbering or titles and do not affect the applicability of TSTF-505. However, Condition 3.7.8.A is associated with the portion of the LCO that is not covered by TSTF-505, and thus, is a non-administrative plant-specific variation; therefore, a justification for the applicability of TSTF-505 is needed. Provide a description and justification of the applicability of TSTF-505 to Required Actions 3.7.8.A.1 and 3.7.8.A.2 in accordance with TSTF-505.

<u>Other Issues Identified during the Acceptance Review</u>

The NRC staff also identified the following information requests that, although not required for the NRC to complete its acceptance review, the staff would provide the licensee if the staff ultimately accepts the application for review.

1. These are editorial items identified in the proposed changes:

    a. Proposed TS 1.3-8 in LAR Attachment 2, "Proposed Technical Specification pages (markup)," does not align with TSTF-505, Revision 2. Some of the defined terms and headings are not capitalized consistent with TSTF-505, Revision 2.

    b. Proposed TS 5.5.23, "Risk Informed Completion Time Program," differs from TSTF-505, Revision 2:

        i. missing title underscore,
        ii. paragraph c has an extra word in first sentence, and

iii. paragraph e has different wording in the third sentence.

c. In TS 3.3.1, several renumbered TS conditions do not have their corresponding required actions renumbered in the markups in LAR Attachment 2 (i.e., proposed TS 3.3.1 Conditions R, S, T, U, and V).

d. Proposed Required Action 3.3.1.V.1 (identified as Required Action 3.3.1.U.1 in LAR Attachment 2) is inconsistent with the proposed changes in TSTF-505, Revision 2. TSTF-505, Revision 2 deletes "inoperable" while the proposed change does not.

e. TS Required Action 3.6.2.C.1 appears to add text "LCO 3.6.1" ("LCO 3.6.1" is colored). Proposed TS Required Action 3.6.2.C.1 is the same as in the current Comanche Peak TS.

2. In the LAR, the licensee requested deletion of TS notes that have one-time change requirements but did not provide justification for these variations. This affects TS Required Actions 3.7.8.B.1, 3.7.8.B.2, 3.8.1.B.4.1, 3.8.1.B.4.2, and 3.8.4.B.2.

3. LAR Attachment 1, Section 1.0, "Description," paragraph 4, states in part:

> … only those Required Actions described in Attachment 4 and Enclosure 1, as reflected in the proposed TS mark-ups provided in Attachment 2, are proposed to be changed, because some of the modified Required Actions in TSTF-505 are not applicable to [Comanche Peak], and there are some plant-specific Required Actions not included in TSTF-505 that are included in this proposed amendment.

However, there are proposed TS markups in LAR Attachment 2, which appear to be consistent with TSTF-505, that are not described in LAR Attachment 4, "Cross-Reference of TSTF-505 and CPNPP Technical Specifications," and Enclosure 1. Clarify the inconsistency between the statement in LAR Attachment 1 and the changes indicated and LAR Attachments 2 and 4.

4. As part of its TSTF-505 review, the NRC staff examines each proposed TS condition for the potential LOF. One method to do that is reviewing the design success criteria (DSC) the licensee provided in the LAR. The DSC is a minimum set of remaining equipment required to perform the safety function. The DSC must demonstrate that the proposed change will not result in a LOF. The NRC staff notes that the following DSC in Table E1-1 of the LAR do not reflect the criteria of DSC, and therefore, raise the concern of the potential LOF.

a. TS Condition 3.8.1.C states "Two required offsite circuits inoperable." The DSC in Table E1-1 for this TS condition is one offsite circuit. With both required offsite circuits inoperable, there is no required offsite circuit available to perform the safety function (providing alternating current (AC) power). However, according to the Comanche Peak Updated Final Safety Analysis Report (ADAMS Package Accession No. ML20315A055), the AC power system consists of the offsite circuits and the onsite AC power sources (i.e., emergency diesel generators). Therefore, with both offsite circuits inoperable, the onsite AC power sources can provide the AC power. Clarify or correct the DSC information in Table E1-1.

b. TS Condition 3.8.4.A states “One or two required battery chargers on one train inoperable.” The DSC in Table E1-1 for this TS condition states, “One 100% capacity battery for one of two DC trains.” TS Condition 3.8.4.A is a TS condition related to battery charger inoperability, but the DSC in Table E1-1 describes the battery. Clarify or correct this DSC information in Table E1-1.

5. LAR Table E1-1 should be reviewed to determine if additional DSC need to be clarified comparable to the two examples in the previous question.

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