



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

November 23, 2022

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, UNITS 1 AND 2 – AGING
MANAGEMENT AUDIT PLAN REGARDING THE LICENSE RENEWAL
APPLICATION REVIEW

Dear Mr. Peters:

By letter dated October 3, 2022, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22276A082), Vistra Operations Company LLC (Vistra or the applicant) submitted an application for license renewal of Facility Operating License Nos. NPF-87 and NPF-89 for Comanche Peak Nuclear Power Plant (CPNPP), Units 1 and 2, to the U.S. Nuclear Regulatory Commission (NRC or staff). Vistra submitted the application pursuant to Title 10 of the Code of Federal Regulations Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," for license renewal.

The NRC plans to conduct an Aging Management Audit from December 12, 2022 – March 27, 2023, in accordance with the enclosed regulatory audit plan. The Aging Management Audit will be conducted at NRC Headquarters and CPNPP site, as appropriate. If you have any questions, please contact Emmanuel Sayoc at 301-415-4048 or by e-mail at emmanuel.sayoc@nrc.gov.

Sincerely,

/RA/

Lauren K. Gibson, Chief
License Renewal Projects Branch
Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446
Enclosure:
Aging Management Audit Plan
cc: w/encl.: ListServ

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2 – AGING
MANAGEMENT AUDIT PLAN REGARDING THE LICENSE RENEWAL
APPLICATION REVIEW
DATED: NOVEMBER 23, 2022

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ADAMS Accession No.: ML22304A191***via email****NRR-106**

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OFFICE	PM/NLRP/DNRL	BC/NLRP/DNRL
NAME	ESayoc	LGibson
DATE	11/16/2022	11/23/2022

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Audit Plan

**Comanche Peak Nuclear Power Plant,
Units 1 and 2
License Renewal Application
Aging Management Regulatory Audit**

December 12, 2022 – March 27, 2023

**Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission**

**Audit Plan
Comanche Peak Nuclear Power Plant,
Units 1 and 2
License Renewal Application
Aging Management Regulatory Audit**

1. Background

By letter dated October 3, 2022, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22276A082), Vistra Operations Company LLC (Vistra or the applicant) submitted an application for license renewal of Facility Operating License Nos. NPF-87 and NPF-89 for Comanche Peak Nuclear Power Plant (CPNPP), Units 1 and 2, to the U.S. Nuclear Regulatory Commission (NRC or staff).

In accordance with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," NRC staff will perform an aging management regulatory audit to gain a better understanding of (1) the applicant's methodology to identify the systems, structures, and components (SSCs) to be included within the scope of license renewal and subject to an aging management review (AMR), and (2) the applicant's aging management programs (AMPs), AMR items, time-limited aging analyses (TLAAs), and associated bases and documentation as applicable.

2. Regulatory Audit Bases

License renewal requirements are specified in 10 CFR Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants." Guidance is provided in NUREG-1800, Rev. 2, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants" (SRP-LR), dated December 2010, and NUREG-1801, Rev. 2, "Generic Aging Lessons Learned (GALL) Report," dated December 2010.

3. Regulatory Audit Scope of Review

Operating Experience Review

The scope of this license renewal regulatory audit of CPNPP is the staff's independent review of plant specific operating experience (OE). The review is performed to identify pertinent examples of age-related degradation, as documented in the applicant's corrective action program database. The results of the audit will be used to support the staff's further review of aging management programs (AMP), time limited aging analyses (TLAAs) and aging management review line items to provide a basis for the staff's conclusions on the ability of the applicant's proposed AMP and TLAAAs to manage the effects of aging in the period of extended operation.

The staff will use risk insights to focus the breadth and depth of its review of plant specific operating experience. However, the staff's review is not limited to risk significant systems and components because 10 CFR Part 54 is a deterministic rule. The staff must conclude that there is reasonable assurance that activities will continue to be conducted in accordance with the current licensing basis and the effects of aging will be managed during the period of extended operation for all structures and components within the scope of 10 CFR Part 54.

Scoping and Screening Review

The purpose of the scoping and screening review is to evaluate the applicant's scoping and screening methodology used to identify SSCs within the scope of license renewal and subject to AMR, and the results of the implementation of the methodology. The review is performed by evaluating the scoping and screening process and results, as documented in the license renewal application (LRA), implementing procedures, reports, and drawings, such that the NRC staff:

- Obtains an understanding of the process used to identify the SSCs within the scope of license renewal and to identify the structures and components subject to an AMR; and
- Has sufficient docketed information to allow the NRC staff to reach a conclusion on the adequacy of the scoping and screening methodology results, as documented in the LRA.

AMP, AMR, and TLAA Review

The scope of the AMP, AMR, and TLAA review is to: (a) examine the applicant's AMPs, AMR items, and TLAAs; (b) verify the applicant's claims of consistency with the corresponding GALL-SLR Report AMPs, and AMR items; and (c) assess the adequacy of the TLAAs. Enhancements and exceptions will be evaluated on a case-by-case basis with the results documented in the safety evaluation.

The NRC staff will audit Program Elements 1 – 10 (scope, preventive actions, parameters monitored or inspected, detection of aging effects, monitoring and trending, acceptance criteria, corrective actions, confirmation process, administrative controls, and operating experience (OE)) of the AMPs against the elements of the associated AMP described in the GALL-SLR Report. In addition, the NRC staff will verify that the conditions at the plant are bounded by the conditions for which the GALL-SLR Report program was evaluated.

The NRC staff will also examine the applicant's program bases documents and related references for AMPs, AMR items, and TLAAs, and interview applicant representatives to obtain additional clarification.

The NRC staff will use risk insights to inform the prioritization of its review of documentation associated with AMPs, AMR items, and TLAAs and to focus the breadth and depth of its review of plant specific operating procedures and OE. However, the NRC staff's review is not limited to risk-significant systems and components because 10 CFR Part 54 is a deterministic rule and the NRC staff must conclude that there is reasonable assurance that activities will continue to be conducted in accordance with the current licensing basis and the effects of aging will be managed during the period of extended operation for all structures and components within the scope of 10 CFR Part 54.

The NRC staff has reviewed the list of risk-significant systems and components provided by the applicant to inform the establishment of priorities for the performance of the scoping and screening review.

4. Audit Activities

Throughout the Aging Management Audit technical staff will conduct a technical review of the LRA, as supplemented and revised, the AMP basis documents, license renewal drawings, and other CPNPP supporting documents, as appropriate and requested, on the applicant's electronic portal (ePortal). The project team requires continued CPNPP document review capability via the ePortal throughout the audit process. Document requests for upload to the ePortal shall be made as needed via the NRC safety project manager to the appropriate applicant licensing manager.

The Aging Management Audit will consist of four parts, scheduled, and coordinated between the NRC staff and the applicant. Each audit part allows the applicant to provide context on the ePortal's contents and configuration, the methods used to develop the LRA, the corresponding results, and any areas unique to the CPNPP LRA. The staff will have the opportunity to have discipline-specific discussions with the applicant to discuss the approaches used for evaluation and development of AMPs, TLAAs, AMR items, with the consideration of OE. In addition, the staff may identify specific technical areas where the staff would benefit from a presentation or discussion to provide additional context to support the staff's review. The staff is to review the information needed to perform the safety review and use the information, to the extent possible, to begin developing draft input for the SER (resulting in an "SER with open items").

At the conclusion of the staff's technical review, the staff will identify any areas requiring inclusion in appropriate formal audit parts outlined below. The four Aging Management Audit parts include:

- Part 1: In-Office Operating Experience Audit

The staff will review:

(1) Applicant's Process to Identify OE Used in Development of AMPs. The staff requests that the applicant provides a presentation on the process used to identify and evaluate the pertinent OE that was used to inform the development of the AMPs as discussed in the LRA and basis documentation.

(2) Use of OE Contained in AMP Report-Out Documents. The staff requests that the applicant discuss how the OE contained in the AMP report-out documents (e.g., reports of inspections, assessments, AMP effectiveness reviews) is in alignment with information contained in the corrective action program (CAP) database and how the process described in (1) along with the use of the report-out information would include any pertinent OE otherwise contained in the CAP database. The applicant should demonstrate that OE identified by the process or included in the report-out documents is bounding of OE that should be considered for developing the LRA. Additionally, the applicant should provide examples of the report-out documents and corresponding corrective action reports.

(3) Staff's Review of Age-Related OE Contained in the CAP Database. Following the applicant's presentations on the process to identify and evaluate OE as well as the information included in the report-out documents, the staff should determine if there are any specific areas of OE that have not been sufficiently addressed or if there is a need to sample the information discussed by the applicant to verify the applicant's results. If the staff identifies such a need, the staff will have an opportunity to perform an independent

review of age-related OE contained in the CAP database, as necessary, to provide reasonable assurance that the applicant has adequately identified and evaluated pertinent OE in the development of the LRA in Part 2 of the Aging Management Audit.

- Part 2: On-Site Scoping and Screening Audit

The applicant presents on references, tools, procedures and reports, and approach to scoping and screening methodology developed and applied to meet the requirements of 10 CFR 54.4(a) and 10 CFR 54.21. The presentation includes technical references used for scoping and screening – updated final safety analysis report (UFSAR), equipment database, Maintenance Rule information, program tools used for License Renewal Application development (database), implementing procedures, guidance documents and reports, and the plant structural layout.

The staff, with the assistance of the applicant, will conduct a detailed review of scoping and screening methodology for mechanical, electrical, and structural systems and components (SCs). As applicable, the review will include implementing procedures; source information; electronic databases; definition of safety-related; design bases events consideration; identification of SSCs within scope; identification of intended functions; scoping/screening boundaries; license renewal drawings; identification of SCs subject to AMR; exceptions taken to Nuclear Energy Institute 95-10, Appendix F, and scoping and screening reports. The review may also include discussions of commodities, consumables, insulation, overhead handling systems, abandoned equipment, and staged equipment, as applicable.

As necessary, the Staff will conduct walkdowns of SCs within the scope of license renewal in accordance with 10 CFR 54.4(a). The walkdown includes a review of areas, rooms or structures containing a combination of SCs within the scope of license renewal.

- Part 3: On-Site Audit

The purpose of the On-Site Audit is to make visual observations of areas, equipment conditions, and configurations, and will be performed by an integrated review team. The On-Site Audit will target specific areas, equipment, and systems, and the staff shall provide the applicant with the audit scope prior to the On-Site Audit to ensure access and to verify that licensee support is available.

Part 4: In-Office Breakout Sessions

During the In-Office Breakout Sessions, the NRC staff will have the opportunity to discuss various basis documents, license renewal drawings, references, condition/corrective action reports, and to obtain additional clarification related to the LRA safety review with the applicant.

The NRC staff will hold breakout sessions, via electronic means, of communication with NRC staff and CPNPP subject matter experts to discuss various basis documents, references, condition/corrective action reports, and interview CPNPP representatives to obtain additional clarification related to the license renewal review. Breakout sessions for various technical review areas will occur at predesignated time slots during the audit, with preassigned NRC staff and CPNPP representatives. NRC staff will provide discussion topics and technical requests and questions to the NRC safety project

manager, who will then relay the information to the CPNPP licensing manager. Any information requests transmitted to the applicant will be included in the audit report. All breakout sessions will be coordinated via the NRC safety project manager and the CPNPP licensing manager.

Each of the four parts of the Aging Management Audit will provide the staff the opportunity to have technical discussions with the applicant to gain clarity and information regarding the LRA. The audit is coordinated to support the development of the reviewers' reasonable assurance for the safety finding to be documented in the SER. The staff may require additional information from the applicant for some technical areas, while finding that information on the ePortal is sufficient for other technical areas. Accordingly, some technical areas may not require inclusion in Part #3, the On-Site Audit. The NLRP safety project manager will coordinate all communications with the applicant. Staff requests for communication with the applicant will require approval of their respective technical branch chief and the NLRP branch chief.

5. Information and Other Material Necessary for the Regulatory Audit

Throughout the Aging Management Audit, the staff will review the LRA, as supplemented and revised, the AMP basis documents and other applicant supporting documents as appropriate and requested, which have been uploaded to the ePortal.

The staff may request additional applicant documents to be added to the ePortal during the course of the audit. The staff requests for ePortal additions shall be made, as needed, to the safety project manager, who will provide the requests to the applicant.

All documents used as the basis for the staff's review will be documented in the audit report.

6. Team Members

Team Member	Branch/Division
Emmanuel Sayoc	License Renewal Projects Branch (NLRP)/Division of New and Renewed Licenses (DNRL)
Lauren Gibson	NLRP/DNRL
Billy Rogers	NLRP/DNRL
Jessica Hammock	NLRP/DNRL
Allen Hiser Jr	DNRL
John Wise	DNRL
Steven Bloom	Corrosion and Steam Generator Branch (NCSG)/DNRL
Andrew Johnson	NCSG/DNRL
Brian Allik	NCSG/DNRL
Gregory Makar	NCSG/DNRL
Joel Jenkins	NCSG/DNRL
Leslie Terry	NCSG/DNRL
Lydiana Alvarado Guilloty	NCSG/DNRL
Matthew Yoder	NCSG/DNRL
Paul Klein	NCSG/DNRL
Reena Boruk	NCSG/DNRL
Tony Gardner	NCSG/DNRL

James Gavula	NCSG/DNRL
Matthew Mitchell	Piping and Head Penetrations Branch (NPHP)/DNRL
Ali Rezai	NPHP/DNRL
Bart Fu	NPHP/DNRL
Karen Sida	NPHP/DNRL
Mat Burton	NPHP/DNRL
Varoujan Kalikian	NPHP/DNRL
Seung Min	NPHP/DNRL
Jay Collins	NPHP/DNRL
Angela Buford	Vessels and Internals Branch (NVIB)/DNRL
Carol Moyer	NVIB/DNRL
Carolyn Fairbanks	NVIB/DNRL
Cory Parker	NVIB/DNRL
David Dijamco	NVIB/DNRL
Emma Haywood	NVIB/DNRL
James Medoff	NVIB/DNRL
John Tsao	NVIB/DNRL
Michael Benson	NVIB/DNRL
On Yee	NVIB/DNRL
Wendell Morton, Wendell	Electrical Engineering Branch (EEEB)/Division of Engineering and External Hazards (DEX)
Adakou Foli	EEEB/DEX
Jason Paige, Jason	Long Term Operations and Modernization Branch (ELTB)/DEX
Liliana Ramadan	ELTB/DEX
Matthew McConnell	ELTB/DEX
Gurcharan Matharu	ELTB/DEX
Jorge Cintron-Rivera	ELTB/DEX
Bryce Lehman	Structural, Civil, Geotech Engineering Branch (ESEB)/DEX
George Wang	ESEB/DEX
Zuhan Xi	ESEB/DEX
Ata Istar	ESEB/DEX
Andrew Prinaris	ESEB/DEX
George Thomas	ESEB/DEX
Jen Whitman	PRA Licensing B (APLB)/Division of Risk Assessment (DRA)
Naeem Iqbal	APLB/DRA
Thinh Dinh	APLB/DRA
Brian Wittick, Brian	Containment and Plant Systems (SCPB)/Division of Safety Systems (DSS)
Brian Lee	SCPB/DSS
Chang Li	SCPB/DSS
Nageswara Karipineni	SCPB/DSS
Angelo Stubbs	SCPB/DSS
Diana Woodyatt	Nuclear Systems Performance Branch (SNSB)/DSS
Christopher Jackson	SNSB/DSS
Adam Rau	SNSB/DSS

7. Logistics

The Aging Management Audit will be conducted primarily via electronic means. Entrance and exit briefings will be held at the beginning and end of each audit.

On-Site Audits will be done at CPNPP and portions of the audit shall be done with electronic means, as needed, to allow NRC staff to participate remotely. The Audits schedules, which were coordinated with the NRC staff and the applicant are follows:

In-Office Operating Experience Audit: December 12 – 16, 2022

On-Site Scoping and Screening Audit: January 9-13, 2023

On-Site Audit: January 30, 2023 – February 20, 2023

In-Office Breakout Sessions: February 27, 2023 – March 27, 2023

8. Special Requests

The NRC staff requests the applicant to make available the license renewal application program basis documentation and drawings, and other documents as requested.

9. Deliverables

An audit report should be issued to the applicant within 90 days from the end of the Aging Management Audit.