



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

COMANCHE PEAK NUCLEAR POWER PLANT, UNIT NO. 1 – APPROVAL OF PROPOSED ALTERNATIVE TO THE REQUIREMENTS OF THE ASME CODE TO EXTEND THE THIRD INSERVICE INSPECTION INTERVAL (EPID L-2020-LLR-0092 [COVID-19])

LICENSEE INFORMATION

Licensee: Vistra Operations Company LLC

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

Plant Name(s) and Unit(s): Comanche Peak Nuclear Power Plant, Unit No. 1

Docket No.: 50-445

APPLICATION INFORMATION

Submittal Date: July 14, 2020

Submittal Agencywide Documents Access and Management System (ADAMS) Accession Package No.: ML20196L875

Supplement Date(s): Not Applicable

Supplement ADAMS Accession No.: Not Applicable

Licensee Proposed Alternative No. or Identifier: 1A3-2

Applicable Regulation: Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.55a(z)(2).

Applicable Code Requirements: American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, provides inspection schedule requirements for ASME Code Class 1 and Class 2 components in IWB-2411 and IWC-2411, respectively. The ASME Code, Section XI, IWA-2430(c)(1) states: "Each inspection interval may be reduced or extended by as much as 1 year. Adjustments shall not cause successive intervals to be altered by more than 1 year from the original pattern of intervals. If an inspection interval is extended, neither the start and end dates nor the inservice inspection program for the successive interval need be revised."

Applicable Code Edition and Addenda: The 2007 Edition through 2008 Addenda of the ASME Code, Section XI.

Brief Description of the Proposed Alternative:

Relief Request 1A3-2 (hereafter designated the proposed alternative) pertains to volumetric and surface examination of multiple ASME Code Class 1 and 2 welds and nozzle inner radii at Comanche Peak Nuclear Power Plant, Unit No. 1 (Comanche Peak, Unit 1), as described in Table 1 of the proposed alternative. The licensee stated that Comanche Peak, Unit 1 entered the third inservice inspection (ISI) interval on August 13, 2010, and has utilized the 1-year interval extension allowed by IWA-2430(c)(1). The licensee identified that by utilizing the 1-year interval extension, the end date for the third ISI interval was moved to on or before August 12, 2021. Completion of the examinations identified in Table 1 of the proposed alternative is required to meet the exam completion requirements for the third ISI interval per the inspection schedule requirements in ASME Code, Section XI, IWB-2411 and IWC-2411. Since the third ISI interval is required to end no later than August 12, 2021, the Comanche Peak, Unit 1 fall 2020 refueling outage (1RF21, October 2020) was the last opportunity to perform the subject examinations and meet the exam completion requirements for the third ISI interval.

The licensee identified that completion of the subject exams for Comanche Peak, Unit 1 during the fall 2020 refueling outage (1RF21) represents a hardship due to the Coronavirus Disease 2019 (COVID-19) pandemic. To minimize the risk of viral transmission to Comanche Peak personnel and the surrounding community, the licensee has to limit the number of personnel entering the plant—in particular, it must limit outside contractor specialists who perform ISI services—and it must implement strict social distancing between onsite workers. Also, due to potential travel restrictions and quarantine requirements associated with COVID-19, the availability of outside contractors to provide the needed inspection services may be limited.

After 1RF21 in October 2020, the next refueling outage for Comanche Peak, Unit 1 is scheduled for April 2022 (1RF22). The licensee noted that the 1-year ISI interval extension allowed by IWA-2430(c)(1) does not provide the flexibility needed to defer the subject exams at Comanche Peak, Unit 1 from the 1RF21 refueling outage in October 2020 to the 1RF22 outage in April 2022. Therefore, due to the hardship caused by the COVID-19 pandemic, the licensee requested U.S. Nuclear Regulatory Commission (NRC) authorization to further extend the third ISI interval to 24 months in accordance with 10 CFR 50.55a(z)(2). The 24-month interval extension would provide the flexibility needed to defer the subject component examinations until the 1RF22 refueling outage scheduled for April 2022.

In its basis for use of the proposed alternative, the licensee identified requirements and procedures for leakage monitoring and addressed the favorable inspection history for the subject components. For additional details on the licensee's submittal, please refer to the submittal documents located at the ADAMS accession numbers identified above.

REGULATORY EVALUATION

Regulatory Basis: 10 CFR 50.55a(z)(2)

Adherence to Section XI of the ASME Code is mandated by 10 CFR 50.55a(g)(4), "Inservice inspection standards requirement for operating plants," which states, in part, that ASME Code Class 1, Class 2, and Class 3 components, and their supports, must meet the requirements,

except the design and access provisions and the preservice examination requirements, set forth in Section XI of editions and addenda of the ASME Code that are incorporated by reference in 10 CFR 50.55a(a)(1)(ii).

Section 50.55a(z) of 10 CFR, "Alternative to codes and standards requirements," states, in part, that alternatives to the requirements of 10 CFR 50.55a(b) through (h) may be used, when authorized by the Director, Office of Nuclear Reactor Regulation. A proposed alternative must be submitted and authorized prior to implementation. The licensee must demonstrate that: (1) the proposed alternative would provide an acceptable level of quality and safety; or (2) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Pursuant to 10 CFR 50.55a(z)(2), the licensee submitted its proposed alternative on the basis that compliance with the specified requirements of 10 CFR 50.55a would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

TECHNICAL EVALUATION

The NRC staff reviewed the licensee's proposed alternative pursuant to 10 CFR 50.55a(z)(2). On August 10, 2020 (ADAMS Accession No. ML20224A055), the NRC staff verbally authorized the use of this alternative. In its verbal authorization, the NRC staff determined that the proposed alternative to extend the third ISI interval by an additional 12 months beyond the 1-year extension allowed by IWA-2430(c)(1), for a total interval extension of 24 months, is technically justified. The NRC staff's written evaluation below documents the technical basis for the NRC's staff's verbal authorization.

Plant component examinations addressed by the alternative are shown in Table 1 of the licensee's July 14, 2020, submittal. These include volumetric examinations of welds in control rod drive housings and in-core instrumentation nozzle housings; volumetric examination of the pressurizer surge nozzle-to-vessel weld; and volumetric and surface examinations of secondary side steam generator shell welds, nozzle welds, and nozzle inner radii. The subject examinations must be completed prior to the end of the Comanche Peak, Unit 1 third ISI interval.

Reasonable Assurance of Adequate Protection

The NRC staff reviewed information in the submittal addressing how reasonable assurance of adequate protection will be maintained for Comanche Peak, Unit 1, with deferral of the subject examinations. The NRC staff noted that the licensee implements the unit's leakage monitoring program in accordance with plant technical specifications, plant procedures, and administrative controls, as described in the July 14, 2020, submittal. The ability to monitor effectively for leakage during the upcoming operating cycle will provide for the prompt identification, investigation, and mitigation of leakage to maintain the integrity of the pressure boundary components for which examinations are deferred. Additionally, visual examinations of borated systems were performed by the licensee's boric acid corrosion control program during the October 2020 refueling outage (1RF21).

The NRC staff noted that the licensee reported no unacceptable indications based on the previous exams for the subject components listed in Table 1 of the submittal. Further, based on its independent review of industry operating experience for component aging degradation and considering the various aging effects that may be applicable over the long term, the NRC staff

verified that the above components are not prone to the types of aging degradation for which a 12-month extension of the ISI interval would prompt a component integrity concern.

Based on the considerations above, the NRC staff determined that the licensee's proposal to extend the third ISI interval by an additional 12 months beyond the 1-year extension allowed by IWA-2430(c)(1) provides reasonable assurance of adequate protection for the components addressed in the licensee's proposed alternative.

Basis for Hardship

The NRC staff reviewed the licensee's statement of the conditions resulting from COVID-19 that could pose health hazards to personnel if examinations of the subject components were performed during the October 2020 refueling outage to meet the ISI interval schedule requirements of the ASME Code, Section XI. Specifically, the licensee needed to limit the number of personnel entering the site, and it needed to implement social distancing between onsite workers to minimize the risk of viral transmission. The NRC staff acknowledges that these precautions are necessary to protect Comanche Peak personnel who are relied on to safely operate the plant.

The NRC staff determined that the licensee's July 14, 2020, submittal, provides sufficient justification for the hardship associated with performing of subject examinations since these exams often require the employment of qualified specialists from outside contractors. The NRC staff identified that bringing in additional personnel from outside contractors to perform the subject examinations increases the risk of viral transmission and is contrary to federal guidelines for protecting workers and the surrounding community from viral transmission. The NRC staff also acknowledges that, due to travel restrictions, this pandemic has resulted in uncertainty that the appropriate ISI specialists would even be available to perform the subject examinations during the October 2020 refueling outage.

As the ongoing COVID-19 pandemic is of sufficient severity and magnitude to warrant an emergency determination under Section 501(b) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. Sections 5121-5207, and the U.S. Centers for Disease Control and Prevention has determined that COVID-19 poses a serious public health risk, the NRC staff finds that the licensee's hardship justification is acceptable.

In summary, considering that reasonable assurance of adequate protection will be maintained for the subject components with the additional 12-month ISI interval extension, the NRC staff determined that performing the subject examinations to meet the ASME Code, Section XI schedule requirements for completion of third ISI interval exams would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

CONCLUSION

As discussed above, the NRC staff has determined that complying with the subject requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Further, the licensee's proposed alternative provides reasonable assurance of adequate protection for the subject components. The NRC staff concludes that the licensee has adequately addressed the regulatory requirements in 10 CFR 50.55a(z)(2). Therefore, the NRC staff authorizes the use of the proposed alternative described in Relief Request 1A3-2 for Comanche Peak, Unit 1 until completion of the next refueling outage,

currently scheduled for April 2022, but no longer than 12 months beyond the 1-year ISI interval extension allowed by IWA-2430(c)(1).

All other ASME Code, Section XI requirements for which an alternative was not specifically requested and approved for this proposed alternative remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

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Date: January 28, 2021

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