



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

February 1, 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 NO. 1 – PROPOSED
ALTERNATIVE TO THE REQUIREMENTS OF THE ASME OM CODE TO
EXTEND THE INSERVICE TESTING PROGRAM INTERVAL FOR CERTAIN
SNUBBERS (EPID L-2020-LLR-0095 [COVID-19])

Dear Mr. Peters:

By electronic submittal dated July 14, 2020, as supplemented by letter dated August 5, 2020, Vistra Operations Company LLC (the licensee) submitted a request to the U.S. Nuclear Regulatory Commission (NRC) for the use of an alternative to certain American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code) requirements at Comanche Peak Nuclear Power Plant, Unit No. 1 (Comanche Peak Unit 1).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(z)(2), the licensee requested to use the proposed Alternative SNB-1 on the basis that complying with the specified requirements would result in hardship or unusual difficulty. The licensee requested to extend the interval for performance of the inservice testing program for the functional testing of snubbers at Comanche Peak Unit 1 listed in the request, from refueling outage 1RF21 in the fall of 2020 to refueling outage 1RF22 scheduled to occur in the spring of 2022.

On August 11, 2020, the NRC provided verbal authorization for proposed Alternative SNB-1 for a one-time extension of the functional testing interval for the snubbers at Comanche Peak Unit 1, until refueling outage 1RF22, scheduled for the spring of 2022. As set forth in the enclosed safety evaluation, the NRC staff concludes that proposed Alternative SNB-1 will provide reasonable assurance that the snubbers at Comanche Peak Unit 1, listed in the licensee's request, are operationally ready to perform their safety functions until refueling outage 1RF22. The NRC staff finds that compliance with the testing schedule requirements in the ASME OM Code (2004 Edition through 2006 Addenda) would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Accordingly, the NRC staff concludes that the licensee has adequately addressed the regulatory requirements

set forth in 10 CFR 50.55a(z)(2). If the licensee identifies a performance issue with any of the snubbers listed in Alternative SNB-1, the licensee will be expected to take action to implement the requirements of the applicable ASME OM Code as incorporated by reference in 10 CFR 50.55a. This authorization will remain in effect until restart from refueling outage 1RF22 at Comanche Peak Unit 1 scheduled for the spring of 2022.

All other ASME OM Code requirements as incorporated by reference in 10 CFR 50.55a for which relief or an alternative was not specifically requested and authorized remain applicable.

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

Sincerely,

Jennifer L. Dixon-Herrity, Chief
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-445

Enclosure:
Safety Evaluation

cc: Listserv



UNITED STATES
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

PROPOSED ALTERNATIVE SNB-1 REGARDING SNUBBER TESTING INTERVAL

EXTENSION

VISTRA OPERATIONS COMPANY LLC

COMANCHE PEAK NUCLEAR POWER PLANT, UNIT NO. 1

DOCKET NO. 50-445

1.0 INTRODUCTION

By electronic submittal dated July 14, 2020 (Agencywide Documents Access and Management System (ADAMS) Package Accession No. ML20196L873), as supplemented by letter dated August 5, 2020 (ADAMS Accession No. ML20218A853), Vistra Operations Company LLC (the licensee) submitted a request to the U.S. Nuclear Regulatory Commission (NRC) for the use of an alternative to specific inservice testing (IST) program requirements in the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code), 2004 Edition through 2006 Addenda, for Comanche Peak Nuclear Power Plant, Unit No. 1 (Comanche Peak Unit 1).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.55a(z)(2), "Hardship without a compensating increase in quality and safety," the licensee requested, in proposed Alternative SNB-1, authorization for a one-time extension of the functional testing of snubbers (also referred to as dynamic restraints) from refueling outage 1RF21 in the fall of 2020 to refueling outage 1RF22 in the spring of 2022 for specific snubbers in the IST program at the Comanche Peak Unit 1.

In proposed Alternative SNB-1, the licensee provided justification that compliance with the requirements in the ASME OM Code, Subsection ISTD, "Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants," paragraph ISTD-5200, "Inservice Operational Readiness Testing," to perform functional testing of specific snubbers according to the required schedule would result in a hardship without a compensating increase in the level of quality and safety in accordance with 10 CFR 50.55a(z)(2).

On August 11, 2020, the NRC provided verbal authorization (ADAMS Accession No. ML20225A152) of proposed Alternative SNB-1 for a one-time extension of the functional testing interval for the snubbers at Comanche Peak Unit 1 specified in the licensee's submittal dated July 14, 2020, as supplemented by letter dated August 5, 2020. The verbal authorization

Enclosure

documentation provided a summary of the NRC staff's evaluation for the proposed alternatives. This safety evaluation provides the details of the NRC staff review of proposed Alternative SNB-1.

2.0 REGULATORY EVALUATION

The regulations in 10 CFR 50.55a(g)(4), "Inservice inspection standards requirement for operating plants," state, in part, that throughout the service life of a boiling or pressurized water-cooled nuclear power facility, components (including supports) that are classified as ASME Code Class 1, Class 2, and Class 3 must meet the inservice inspection requirements, set forth in Section XI of the editions and addenda of the ASME *Boiler and Pressure Vessel Code* (BPV Code) or ASME OM Code for snubber examination and testing that become effective subsequent to editions and addenda specified in 10 CFR 50.55a(g)(2) and (3) and that are incorporated by reference in 10 CFR 50.55a(a), to the extent practical within the limitations of design, geometry, and materials of construction of the components.

The regulation in 10 CFR 50.55a(b)(3)(v)(B), "Snubbers: Second provision," states:

Licensees must comply with the provisions for examining and testing snubbers in Subsection ISTD of the ASME OM Code and make appropriate changes to their technical specifications or licensee-controlled documents when using the 2006 Addenda and later editions and addenda of Section XI of the ASME BPV [Boiler and Pressure Vessel] Code.

The regulations in 10 CFR 50.55a(z), "Alternatives to codes and standards requirements," state, in part, that alternatives to the requirements of 10 CFR 50.55a(b) through (h) may be used, when authorized by the NRC, if the licensee demonstrates (1) the proposed alternatives 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.

3.0 TECHNICAL EVALUATION

3.1 The Licensee's Proposed Alternative SNB-1

3.1.1 Applicable ASME OM Code

The licensee's OM Code of Record is the 2004 Edition through the 2006 Addenda of the ASME OM Code, as incorporated by reference in 10 CFR 50.55a, for the snubber program at Comanche Peak Unit 1 for the third 10-year IST snubber program interval, which is currently scheduled to end on April 19, 2023. It should be noted that this interval end date differs from the IST program (August 2, 2023), which is an effect of the interval dates for the legacy Section XI snubber program. The OM Code of Record is the same for both the IST program and the snubber program and the discrepancy has been captured in the licensee's corrective action program.

3.1.2 Licensee's Alternative Request

The specific IST requirements of the ASME OM Code related to this alternative request are as follows:

- ASME OM Code, Subsection ISTD, paragraph ISTD-5200, "Inservice Operational Readiness Testing," states, in part, that "Snubbers shall be tested for operational readiness during each fuel cycle [every 2 years in this case]."
- ASME OM Code, Subsection ISTD, paragraphs ISTD-5240, "Test Frequency," and ISTD-5260, "Testing Sample Plans," specify the test frequency and testing sample plans, respectively.
- ASME OM Code, Subsection ISTD, paragraph ISTD-5261, "Sample Plans," states that: "The snubbers of each DTPG [Defined Test Plan Group] shall be tested using either of the following:
 - (a) the 10% testing sample plan
 - (b) the 37 testing sample plan."
- ASME OM Code, Subsection ISTD, paragraphs ISTD-5300, "The 10% Testing Sample Plan," and ISTD-5400, "The 37 Testing Sample Plan," specify these testing sample plans.
- ASME OM Code, Subsection ISTD, paragraph ISTD-6000, "Service Life Monitoring," service life monitoring requirements.

The licensee has chosen to implement the 37 testing sample plan for the snubbers at Comanche Peak Unit 1. The licensee requested a one-time extension of the functional testing interval from the fall 2020 refueling outage (1RF21) to the spring 2022 refueling outage (1RF22) for the snubbers listed in Table 1, "Snubber Tests Requested for Deferral to 1RF22," of proposed Alternative SNB-1, as supplemented, at Comanche Peak Unit 1.

3.1.3 Reason for Request

In its request dated July 14, 2020, the licensee indicated that Comanche Peak Unit 1 was scheduled to begin refueling outage 1RF21 in the fall of 2020. The licensee reported that the snubbers listed in its request are functionally tested in accordance with the frequency specified in ASME OM Code (2004 Edition through 2006 Addenda), Subsection ISTD, paragraph ISTD-5200 (every 2 years). Therefore, these snubbers were scheduled to be functionally tested during the refueling outage in the fall of 2020.

On March 13, 2020, the U.S. Federal Government declared a national emergency pursuant to the Stafford Act due to the serious public health risk of the Coronavirus Disease 2019 (COVID-19) and resulting pandemic. The licensee stated that the most recent guidance at that time from the Centers for Disease Control and Prevention included recommendations for social distancing by maintaining approximately 6 feet from other personnel to limit the spread of the virus. In addition, the state of Texas, where Comanche Peak Unit 1 is located, issued a Major Disaster Declaration on March 25, 2020, to take actions necessary to reduce exposure to the virus associated with the COVID-19 virus outbreak.

The licensee has proposed a one-time extension of the functional testing interval on the basis that testing would represent a hardship due to the occupational health and safety concerns associated with pandemic-related issues pertaining to the COVID-19 outbreak. For example, the licensee indicated that work during outages, including IST activities for snubbers, tends to be in close spaces and does not allow for social distancing. The licensee plans to limit onsite personnel to reduce the risk of spreading the COVID-19 virus. Additionally, the licensee states that bringing in outside specially trained and qualified resources with unknown medical history and potential exposure to the COVID-19 virus to perform these IST activities could be detrimental to the occupational health and safety of the workforce and increase the potential to spread the virus. Therefore, the licensee asserted that the functional testing of the specified snubbers at Comanche Peak Unit 1 during the fall 2020 refueling outage would result in a hardship without a compensating increase in the level of quality and safety in accordance with 10 CFR 50.55a(z)(2).

3.1.4 Duration of the Alternative

The proposed alternative is a one-time extension until the end of refueling outage 1RF22, scheduled to begin in the spring of 2022.

3.2 NRC Staff Evaluation

In its request, the licensee reported that the service life expiration date for all snubbers specified in its request is at least the year 2030. In a request for additional information (RAI) dated July 28, 2020 (ADAMS Accession No. ML20210M407), the NRC staff asked for clarification regarding the service life expiration dates. In the licensee's response, the licensee indicated that the service life expiration date for each snubber was evaluated at the close of the prior refueling outage (1RF20) as required by ISTD-6200 of the ASME OM Code. The evaluation determined that the 40-year service life did not require reduction due to any environmental conditions and that the snubbers have experienced very few failures in the last 10 years (one failed test and one unsatisfactory visual). These failures are evaluated under the site's corrective action program for cause and extent of condition. The site reported that 241 snubbers have been tested in the last 10 years, and the single failure (CC-1-007-034-A63K) was evaluated, ultimately concluding that the piping system to which the snubber is attached remained within its design parameters and would have fulfilled its safety functions. The licensee replaced this snubber as part of its corrective action and randomly selected 19 more snubbers from the corresponding mechanical snubber population at Comanche Peak Unit 1 for operational readiness testing as required by the ASME OM Code, paragraphs ISTD-5412, "Additional Sample Size," and ISTD-5420, "The 37 Testing Sample Plan Additional Testing." The licensee reported that all 19 of these snubbers passed their tests with no additional failures. The NRC staff considers this to be acceptable.

In its RAI, the NRC staff also asked about the visual examination history of the snubber population, as this information was not included in the initial submittal. In the licensee's response, the licensee stated that all of the 1443 snubbers at Comanche Peak Unit 1 in the scope of the ASME OM Code, which includes the 37 snubbers subject to the proposed alternative request, were visually inspected during refueling outages 1RF19 and 1RF20, with the exception of snubbers CS-1-258-700-A53K and CS-1-259-700-A53K. These two snubbers were not inspected due to their location in a locked high radiation area, but are currently scheduled to be inspected in September 2020, which is the first available time to inspect prior to a resin transfer. Out of the 1441 snubbers visually inspected, only snubber

CC-1-043-013-A43K had unsatisfactory results, which was entered into the licensee's corrective action program, found to not impact the operating system, and was subsequently corrected via a work order.

The licensee reported that there are no planned changes to the snubber environment or operating conditions that would affect the snubbers in a different manner than represented during the past surveillance testing. The licensee indicated that no deficiencies, adverse trends, or maintenance work orders have been identified that would impact or degrade any snubber's performance capability. The licensee stated that there have been no dynamic events or transients during plant operation since the previous refueling outage that might affect snubber performance. The NRC staff further confirmed that the population of snubbers within the scope of this proposed alternative request will remain within the predicted service life interval through the end of 1RF22.

The NRC staff reviewed the licensee's characterization of the hardship posed by the occupational health and safety concerns associated with pandemic-related issues pertaining to the COVID-19 outbreak. The licensee reports that outage activities, including IST activities for snubbers, can create challenges for social distancing practices. Specifically, specialized external resources necessary to perform these IST activities could introduce additional potential to spread the virus, as their medical history could be unknown and exposure to the COVID-19 virus is possible during travel. The licensee states that quarantine and/or adequate testing of incoming contractors is burdensome and does not alleviate all risk of potential infection of site personnel. The NRC staff considers the pandemic-related issues of the COVID-19 outbreak to be a hardship or unusual difficulty for the purposes of 10 CFR 50.55a(z)(2).

Based on the information described above for the specific snubbers at Comanche Peak Unit 1 listed in the licensee's request, the NRC staff finds that (1) snubber population testing during the past 10 years indicate a history of acceptable performance; (2) ongoing inservice visual examination and testing activities have not identified snubber performance concerns; (3) service life monitoring activities of all snubbers is performed every refueling outage and service life maintenance activities will continue as needed; and (4) a hardship exists regarding functional testing of the subject snubbers due to the occupational health and safety concerns associated with pandemic-related issues pertaining to the COVID-19 outbreak.

Therefore, the NRC finds that the licensee's proposed alternative for a one-time extension of operational readiness testing for 37 specified snubbers at Comanche Peak Unit 1, in accordance with 10 CFR 50.55a(z)(2), will provide reasonable assurance that the snubbers will be operationally ready to perform their safety functions until refueling outage 1RF22 scheduled for the spring of 2022.

4.0 CONCLUSION

On August 11, 2020, the NRC provided verbal authorization for proposed Alternative SNB-1 for a one-time extension of the functional testing interval for the snubbers at Comanche Peak Unit 1, until refueling outage 1RF22, scheduled for the spring of 2022. As set forth above, the NRC staff concludes that proposed Alternative SNB-1 will provide reasonable assurance that the snubbers at Comanche Peak Unit 1, listed in the licensee's request, are operationally ready to perform their safety functions until refueling outage 1RF22. The NRC staff finds that compliance with the testing schedule requirements in the ASME OM Code (2004 Edition through 2006 Addenda) would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Accordingly, the NRC staff concludes that the

licensee has adequately addressed the regulatory requirements set forth in 10 CFR 50.55a(z)(2). If the licensee identifies a performance issue with any of the snubbers listed in Alternative SNB-1, the licensee will be expected to take action to implement the requirements of the applicable ASME OM Code as incorporated by reference in 10 CFR 50.55a. This authorization will remain in effect until restart from refueling outage 1RF22 at Comanche Peak Unit 1 scheduled for the spring of 2022.

All other ASME OM Code requirements as incorporated by reference in 10 CFR 50.55a for which relief or an alternative was not specifically requested and authorized remain applicable.

Principal Contributors: Gurjendra Bedi
Nicholas Hansing

Date: February 1, 2021

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT, UNIT NO. 1 – PROPOSED ALTERNATIVE TO THE REQUIREMENTS OF THE ASME OM CODE TO EXTEND THE INSERVICE TESTING PROGRAM INTERVAL FOR CERTAIN SNUBBERS (EPID L-2020-LLR-0095 [COVID-19]) DATED FEBRUARY 1, 2021

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