

**From:** Galvin, Dennis  
**Sent:** Tuesday, April 14, 2020 12:01 PM  
**To:** Jack Hicks (Jack.Hicks@luminant.com)  
**Cc:** Barnette, James; Struble, Garry; Dixon-Herrity, Jennifer; Scarbrough, Thomas  
**Subject:** Verbal Authorization of Comanche Peak Unit 2 Relief Requests SNB-1 and SNB-2 (L-2020-LLR-0060)  
**Attachments:** L-2020-LLR-0060 Comanche Peak 2 Snubber Requests COVID Verbal Authorization 2020-04-14.pdf

Jack,

Please find the attached the written documentation of the verbal authorization of Comanche Peak Unit 2 Relief Requests SNB-1 and SNB-2.

If you have any questions, please contact me at (301) 415-6256 or [Dennis.Galvin@nrc.gov](mailto:Dennis.Galvin@nrc.gov).

Respectfully,

Dennis Galvin  
Project Manager  
U.S Nuclear Regulatory Commission  
Office of Nuclear Reactor Regulation  
Division of Operating Reactor Licensing  
Licensing Project Branch 4  
301-415-6256

Docket No. 50-446

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**From:** Galvin, Dennis

**Created By:** Dennis.Galvin@nrc.gov

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VERBAL AUTHORIZATIONS BY THE NRC OFFICE OF NUCLEAR REACTOR REGULATION  
FOR ALTERNATIVE REQUESTS SNB-1, SNUBBER TESTING, AND SNB-2, SNUBBER  
VISUAL EXAMINATIONS

COMANCHE PEAK NUCLEAR POWER PLANT, UNIT 2

VISTRA OPERATIONS COMPANY LLC

DOCKET NO. 50-446

April 14, 2020

**Technical Evaluation read by Thomas G. Scarbrough, Acting Chief, Mechanical Engineering and Inservice Testing Branch, Division of Engineering and External Hazards, NRC Office of Nuclear Reactor Regulation**

By letter dated April 10, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20101K726), as supplemented by letter dated April 13, 2020 (ADAMS Accession No. ML20104C062), Vistra Operations Company LLC (the licensee) proposed alternatives to specific inservice testing (IST) program requirements for snubbers (also referred to as dynamic restraints) in the 2004 Edition through 2006 Addenda of the American Society of Mechanical Engineers (ASME) *Code for Operation and Maintenance of Nuclear Power Plants* (OM Code), for Comanche Peak Nuclear Power Plant, Unit 2, pursuant to Title 10 of the *Code of Federal Regulations*, Part 50, Section 55a (10 CFR 50.55a).

In particular, the licensee submitted two proposed alternatives for snubber testing and snubber visual examinations on April 10, 2020, as supplemented on April 13, 2020, requesting U.S. Nuclear Regulatory Commission (NRC) authorization to extend the Comanche Peak Unit 2 snubber testing (Request SNB-1) and snubber visual examinations (Request SNB-2) to satisfy the ASME OM Code, Subsection ISTD, "Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants," currently scheduled for the refueling outage in the spring 2020 (2RF18) to the refueling outage planned for the fall of 2021 (2RF19) due to Coronavirus Disease (COVID-19) issues for specific snubbers listed in each alternative request.

In its submittal, the licensee provided justification that compliance with the provisions in the ASME OM Code, as incorporated by reference in 10 CFR 50.55a, to conduct testing and examinations of snubbers at this time 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). The licensee considered that the performance of testing and examinations of the specific snubbers identified in Requests SNB-1 and SNB-2, at this time, 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 IST activities, including those related to snubbers, involve close contact with personnel working in tight spaces and thereby limit social distancing capabilities. The licensee also stated that the close contact required to perform the IST activities could be detrimental to the occupational health and safety of the workforce and result in the potential to spread the virus.

The NRC staff describes its Verbal Authorizations for Request SNB-1 and Request SNB-2 for Comanche Peak Unit 2 as specified in the licensee's submittal dated April 10, 2020, and supplemented on April 13, 2020, separately as follows:

## Request SNB-1, Snubber Testing

In Request SNB-1, the licensee requested authorization for a one-time Snubber Program interval extension from the upcoming spring 2020 refueling outage (2RF18) to the fall 2021 refueling outage (2RF19) for the testing of 39 specific snubbers at Comanche Peak Unit 2 due to occupational health and safety concerns associated with the COVID-19 outbreak. The licensee provided justification that compliance with the requirements in the ASME OM Code, Subsection ISTD, paragraph ISTD-5200, "Inservice Operational Readiness Testing," including paragraph ISTD-5240, "Test Frequency," and paragraph ISTD-5260, "Testing Sample Plans," to perform functional testing of the specific snubbers at this time 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).

In Request SNB-1, the licensee stated that the 10% Testing Sample Plan, as described in the ASME OM Code, is used for functional testing of the steam generator snubbers, and the 37 Testing Sample Plan, as described in the ASME OM Code, is used for the balance of the snubbers specified in Request SNB-1. To support its request, the licensee stated that each snubber listed in its submittal has a predicted service life (2033) that is significantly beyond the fall 2021 refueling outage. The licensee stated that this alternative request does not impact the implementation of its service life monitoring (SLM) program required by the ASME OM Code, Subsection ISTD.

In Request SNB-1, the licensee reported that in the last 10 years, 241 snubbers have been tested with only four snubber test failures that occurred during the fall of 2018 (2RF17). The licensee evaluated these failures and took corrective action per the Comanche Peak corrective action program. The licensee reported that its evaluation of these failures concluded that the piping systems to which these snubbers are attached remained within their design parameters and would have fulfilled their safety functions. The licensee stated that one failed snubber (RC-2-RB-028-701-1) was determined to be an isolated failure per ASME OM Code, Subsection ISTD, paragraph ISTD-5422, "Isolated Failure," and was replaced with an acceptable spare snubber. The licensee stated that its evaluation of the second failed snubber (CS-2-RB-061-704-1) determined that this failure was due to a mishandling event or being struck by an external load, and was determined to be an isolated failure per paragraph ISTD-5422. The licensee indicated that this snubber was replaced by another acceptable spare snubber. The licensee reported that the failure of the third snubber (RC-2-135-402-C41K) was due to a possible damaged pin and spherical bearing, with dry grease found inside the snubber as a result of the high temperature of the piping to which it was installed. Due to this snubber failure, the licensee expanded its sample to test 19 additional snubbers, and found no failures in the expanded group. The licensee stated that the failed snubber was replaced with an acceptable spare snubber with the snubber body mass installed away from the high temperature piping. The licensee reported that the fourth snubber (RC-2-018-402-C61K) was found with a missing pin, and failed its functional test when removed for testing. The licensee's analysis of the piping system, assuming that this snubber was disconnected, determined that the piping system was capable of performing its design functions, and was not adversely affected by this condition. The licensee replaced that snubber with a new spare snubber. Further, the licensee stated that one steam generator snubber (TCX-RCESHS-17) listed in Request SNB-1 was previously tested with satisfactory results during refueling outage 2RF09 in the fall of 2006.

In Request SNB-1, the licensee stated that the Comanche Peak Unit 2 operational readiness test history during the past 10 years shows that the snubber population is well maintained within the examination, testing, and SLM program. The licensee reported that there are no planned

changes to the snubber environments or operating conditions that would affect the snubbers differently 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 each snubber in the scope of this request will remain within the predicted service life interval, in accordance with ASME OM Code, Subsection ISTD, paragraph ISTD-6100, "Predicted Service Life," through refueling outage 2RF19 as determined during the refueling outage (2R17) in the fall of 2018. Considering the entire snubber population and the current level of acceptable performance, the licensee considered that there is reasonable assurance that each snubber will continue to be operationally ready to perform its safety functions during the interval of this proposed alternative.

Based on the information described above, the NRC staff finds that (1) snubber population testing during the past ten years indicates the acceptable historical performance of the snubbers within the scope of Request SNB-1; (2) ongoing inservice testing activities have not identified snubber performance concerns, with specific snubber test failures resolved by the corrective action program; (3) the licensee is implementing its SLM program for all snubbers every refueling outage, and service life maintenance activities are not modified by this request; and (4) a hardship exists for the functional testing of these snubbers at this time that would be contrary to the health and safety of plant personnel.

Therefore, the NRC finds that the licensee's proposed alternative for a one-time Snubber Program interval extension for the testing of 39 specific snubbers at Comanche Peak Unit 2 listed in Request SNB-1, from the upcoming spring 2020 refueling outage (2RF18) to the fall 2021 refueling outage (2RF19) will provide reasonable assurance that the snubbers will be operationally ready to perform their safety functions until the fall 2021 refueling outage (2RF19), in accordance with 10 CFR 50.55a(z)(2). 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 approved as part of Request SNB-1 remain applicable. If the licensee identifies a performance issue with any of these snubbers, the licensee will be expected to take action to implement the requirements of the applicable ASME OM Code. This authorization will remain in effect until restart from the next refueling outage for Comanche Peak Unit 2 in the fall of 2021. The licensee's testing plans for these snubbers may be adjusted as appropriate by any subsequent NRC-authorized alternative requests.

## Request SNB-2, Snubber Examinations

In Request SNB-2, the licensee requested authorization for a one-time Snubber Program interval extension from the upcoming spring 2020 refueling outage (2RF18) to the fall 2021 refueling outage (2RF19) for the visual examination of specific snubbers at Comanche Peak Unit 2 listed in its request due to occupational health and safety concerns associated with the COVID-19 outbreak. In particular, the licensee indicated that this request applied to 524 snubbers, including four steam generator snubbers, at Comanche Peak Unit 2. The licensee provided justification that compliance with the requirements in the ASME OM Code, Subsection ISTD, paragraph ISTD-4200, "Inservice Examination," and the provisions in ASME OM Code Case OMN-13, Revision 0, "Requirements for Extending Snubber Inservice Visual Examination Interval at LWR Power Plants," which is accepted in NRC Regulatory Guide 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code," as incorporated by reference in 10 CFR 50.55a, to perform visual examinations of the specific snubbers at this time 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).

In Request SNB-2, the licensee noted that ASME OM Code, paragraph ISTD-4200, requires snubbers to be visually examined on a specified schedule to determine their operational readiness. With the use of Code Case OMN-13, the licensee indicated that the current interval schedule is 10 years. The licensee reported that Comanche Peak Unit 2 completed 100% visual examinations of the snubber population during refueling outage 2RF12 in the spring of 2011. The licensee stated that 317 visual examination of snubbers were performed during refueling outage 2RF17 in the fall of 2018, with the balance of 506 visual examinations originally scheduled to be completed during refueling outage 2RF18 in the spring of 2020. The licensee indicated that visual examinations not completed during refueling outage 2RF18 would exceed the 10-year interval allowed by ASME OM Code Case OMN-13 by approximately 6 months, if performed in refueling outage 2RF19 in the fall of 2021.

In Request SNB-2, the licensee stated that since 2011, there have been 1,140 visual examinations of program snubbers with only three visual examination issues identified. In particular, the licensee reported that Snubber RC-2-135-402-C41K appeared to have a possible damaged pin and spherical bearing. Upon removal for testing, this snubber was confirmed to have a high drag value. The licensee randomly selected an expansion sample of 19 snubbers from similar applications that were functionally tested. The licensee indicated that no other failures were found in the expansion sample during snubber testing. The licensee stated that Snubber RC-2-018-402-C61K was found to be missing one of its load pins and would not hand stroke. Upon testing, this snubber failed its functional test due to high drag. The licensee replaced this snubber with a new spare snubber. In response to the missing pin for the snubber, the licensee reported that 368 snubbers were visually examined for appropriate pins with no problems identified. The licensee reported that Snubber MS-2-RB-045-010-2 appeared to have been stepped on, and that this condition was entered into the corrective action program. The licensee stated that specific examination of the snubber determined that the apparent condition was cosmetic, and the snubber was reinstalled. The licensee stated that each of these three occurrences was documented and evaluated, with corrective action taken per the Comanche Peak corrective action program.

In Request SNB-2, the licensee stated that the Comanche Peak Unit 2 snubber examination and testing history during the past 10 years shows that the snubber population is well maintained within the examination, testing, and service life monitoring (SLM) program, and is performing well in the environment and operating conditions. The licensee indicated that there

are no planned changes to the snubber environments or operating conditions that would affect the snubbers differently than represented in the operating history. The licensee stated that there are no deficiencies, adverse trends, or maintenance work orders that would impact or degrade any snubber's performance capability. The licensee stated that each snubber included in the scope of Request SNB-2 will remain within its predicted service life, in accordance with ASME OM Code, Subsection ISTD, paragraph ISTD-6100, "Predicted Service Life," through the end of refueling outage 2RF19 as determined during the refueling outage (2R17) in the fall of 2018. Considering the entire snubber population and the current level of acceptable performance, the licensee considered that there is reasonable assurance that each snubber will continue to be operationally ready to perform its safety functions during the interval of this proposed alternative.

Based on the information described above, the NRC staff finds that (1) snubber population visual examinations during the past ten years indicate acceptable historical performance of the snubbers within the scope of Request SNB-2; (2) ongoing inservice visual examination activities have not identified snubber performance concerns, with specific snubber examination issues resolved by corrective action; (3) the licensee is implementing its SLM program for all snubbers every refueling outage, and service life maintenance activities are not modified by this request; and (4) a hardship exists for the visual examination of these snubbers at this time that would be contrary to the health and safety of plant personnel.

Therefore, the NRC finds that the licensee's proposed alternative for a one-time Snubber Program interval extension for the visual examinations of the specific snubbers at Comanche Peak Unit 2 listed in Request SNB-2 from the spring 2020 refueling outage (2RF18) to the fall 2021 refueling outage (2RF19) will provide reasonable assurance that the specified snubbers will be operationally ready to perform their safety functions until the refueling outage in the fall of 2021, in accordance with 10 CFR 50.55a(z)(2). 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 approved as part of Request SNB-2 remain applicable. If the licensee identifies a performance issue with any of the snubbers listed in Request SNB-2, the licensee will be expected to take action to implement the requirements of the applicable ASME OM Code. This authorization will remain in effect until restart from the next refueling outage for Comanche Peak Unit 2 in the fall of 2021. The licensee's examination plans for these snubbers may be adjusted as appropriate by any subsequent NRC-authorized alternative requests.

**Authorization read by Jennifer Dixon-Herrity, Chief of the Plant Licensing Branch IV,  
Office of Nuclear Reactor Regulation**

As Chief of the Plant Licensing Branch IV, Office of Nuclear Reactor Regulation, I agree with the conclusions of the Mechanical Engineering and Inservice Testing Branch.

The NRC staff concludes that the proposed alternatives for Comanche Peak, Unit 2 will provide reasonable assurance of adequate safety until the next scheduled refueling outage in the fall of 2021 when the testing and examinations of the specific snubbers identified in Requests SNB-1 and SNB-2 may be performed.

The NRC staff finds that complying with the requirements of the ASME OM Code, as required by 10 CFR 50.55a, 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 all of the regulatory requirements set forth in 10 CFR 50.55a(z)(2).

Therefore, effective April 14, 2020, the NRC authorizes the use of the proposed alternatives at Comanche Peak, Unit 2 until completion of the next scheduled refueling outage, scheduled for the fall of 2021. All other requirements in ASME OM Code for which relief or an alternative was not specifically requested and approved as part of this request remain applicable.

This verbal authorization does not preclude the NRC staff from asking additional clarification questions regarding the proposed alternatives while subsequently preparing the written safety evaluation.