Relief Request Application for Snubber Testing Relief Request

1. Title of Project
RELIEF REQUEST SNB-1 – Snubber Testing

2. Licensee
Vistra Operations Company LLC (Vistra OpCo)

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6. Plant Identification Number
227551

7. Plant Name
Comanche Peak Nuclear Power Plant (CPNPP)

8. Plant Units
Unit 1

9. Docket Numbers
50-445

10. License Numbers
NPF-87

11. Requested Completion Date
August 14, 2020

12. Applicable Regulation and Inservice Inspection (ISI) or Inservice Testing (IST)
10 CFR 50.55a(z)(2) IST

13. Proposed Alternative Number or Identifier:
SNB-1

14. Applicable American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code, or ASME Operations and Maintenance (OM) Code, Edition and Addenda:
American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code), 2004 Edition through the 2006 Addenda (Ref. 1)

15. ISI or IST Program Interval Number and start/end dates (as applicable):
IST Program Third Interval
Start Date: August 3, 2013
End Date: August 2, 2023

16. ASME Code Class
ASME Code Class 1, 2 & 3

17. Applicable Components and or System Description (if applicable):
Comanche Peak Nuclear Power Plant (CPNPP) Unit 1 snubbers that are within the scope of the ASME OM Code as listed in Table 1, "Snubber Tests Requested for Deferral to the spring of 2022 (1RF22)."

18. Describe the Applicable Code Requirements:
ISTD-5240, Test Frequency, which states in part:

> Tests of snubbers from the facility shall be performed every fuel cycle…

19. Reason for Request:
The U.S. Federal Government made a COVID-19 declaration of emergency pursuant to the Stafford Act on March 13, 2020. The U.S. Center for Disease Control (CDC) determined that COVID-19 poses a serious public health risk. In the state of Texas, where CPNPP is located, a Major Disaster Declaration was declared on March 25, 2020, to take actions necessary to reduce exposure to the virus associated with the COVID-19 outbreak. Although many of the state restrictions have been lifted or reduced, the CDC has indicated that many U.S. States could experience another increased surge in the spread of the virus again this Fall.

The (CDC) continues to recommend social distancing and the use of masks as it applies to COVID-19. The CDC defines social distancing as "remaining out of congregate settings, avoiding mass gatherings, and maintaining distance (approximately 6 feet or 2 meters) from others when possible."

In response to the COVID-19 Pandemic and to comply with CDC guidance, Vistra Operations LLC (Vistra OpCo) established the following guidelines and restrictions that remain in effect at Comanche Peak Nuclear Power Plant (CPNPP):

1. Employees who do not have a critical need to be at CPNPP facilities must work remotely.
2. Employees who must work from a CPNPP facility are to practice strict social distancing.
3. 1RF21 Outage scope shall be reduced to limit the number of supporting contract personnel.

These guidelines and restrictions were established to eliminate the potential of inadvertently spreading the COVID-19 virus to critical personnel who are necessary to complete 1RF21 refueling outage activities, return the unit safely to service, and to maintain the unit operational to meet its power demands along with the surrounding community.

A large concern with spreading the virus focuses on outside specially trained and qualified resources who perform work to supplement the small CPNPP staff during outages. The concerns associated with outside resources consists of the risk of their availability either due to the potential for travel restrictions and quarantine requirements imposed by both the U.S. Government and the State of Texas making it extremely difficult to travel from out of state to site, or because of illness. Bringing contract personnel on site with unknown medical history and their potential exposure to COVID-19 virus increases the risks of infecting the CPNPP personnel with COVID-19 virus. It is an extreme hardship for CPNPP to quarantine incoming contractors for sufficient durations to ensure they are free of COVID-19 virus symptoms or to

conduct adequate testing of all contractors for COVID-19 virus. However, without these safeguards, the CPNPP staff and surrounding community are at increased risk of contracting COVID-19 virus, which has the potential of affecting the outage and future operation of the station.

Additionally, in general, work during outages tends to be in close spaces and does not allow for social distancing which can be a large contributor towards the spread of the virus as well.

Many of the planned 1RF21 Outage activities are being postponed until future outages based on the above guidelines, restrictions and concerns such that compliance with the applicable code requirements for inspection and testing results in hardship or unusual difficulty without a compensating increase in level of quality or safety during the current and future concerns related to the pandemic. Testing and inspections mandated by the Code of Federal Regulations in Title 10, Part 50, Section 55a, (10CFR50.55a) cannot be postponed without prior NRC approval.

Relief is being sought based on the existence of satisfactory snubber operational readiness performance data and that compliance would involve activities that would be detrimental to the occupational health and safety of the workforce and result in the potential to spread the virus. The basis of the request is that compliance results in hardship or unusual difficulty without a compensating increase in level of quality or safety during the current COVID-19 pandemic. Subsection ISTD 5240 requires snubbers to be tested for operational readiness during each fuel cycle. The number of snubbers to be tested is based on a sample test plan defined by article ISTD-5260, “Testing Sample Plans.”

CPNPP Unit 1 has 37 sample plan which are all mechanical snubbers. Using the appropriate sample plan, a selection of snubbers is chosen for operational readiness testing during each fuel cycle. Table 1 represents the population of snubbers scheduled to be tested under the snubber test plan for the 1RF21 refueling outage.

This relief request demonstrates that there is reasonable assurance that the operational readiness of each identified snubber will be maintained through the next refueling outage currently scheduled for the spring of 2022 (1RF22). The technical justification utilizes available data from the last 10 years of snubber testing and includes a review of the service life monitoring history for the snubber population. This provides the technical justification necessary to show that the proposed alternative to extend the testing interval by deferring the snubber testing in 2020 until the next refueling outage in the spring of 2022 is acceptable and provides reasonable assurance that the snubbers maintain operational readiness.

20. Brief Description of the Proposed Alternative (500 characters or less):
Vistra OpCo is requesting this one-time relief from the following ASME OM Code requirement: ISTD-5240 requires that tests of snubbers from the facility shall be performed every fuel cycle. Vistra OpCo proposes to alternatively defer the 37 plan originally scoped to 1RF21 to the refueling outage currently scheduled for spring of 2022 (1RF22) so that the entire 1RF22 snubber testing scope includes only the 37 plan originally scoped to 1RF21 and any scope expansion that may result from that testing.

21. Full Description of the Proposed Alternative:
Proposed Alternative

Vistra OpCo is requesting this one-time relief associated with performing the identified snubber testing activities pursuant to 10 CFR 50.55a(z)(2) on the basis that compliance results in hardship or unusual difficulty without a compensating increase in level of quality or safety during the current pandemic due

to the COVID-19 outbreak. Vistra OpCo proposes this one-time relief from the following ASME OM Code requirements and provides the proposed alternative testing as follows:

> ISTD-5240 requires that tests of snubbers from the facility shall be performed every fuel cycle. Vistra OpCo proposes to alternatively defer the 37 plan originally scoped to 1RF21 to the refueling outage currently scheduled for spring of 2022 (1RF22) so that the entire 1RF22 snubber testing scope includes only the 37 plan originally scoped to 1RF21 and any scope expansion that may result from that testing.

Based on the CPNPP Unit 1 snubber test history, the elimination of snubber testing during refueling outage 1RF21 will not impact the ability of the untested snubbers to perform their intended safety function until refueling outage 1RF22 when testing will resume. In the last 10 years, 241 snubbers have been tested with only one (1) snubber test failure that occurred during the spring of 2016 (1RF18). The test failure occurred in the Component Cooling (CC) system of the mechanical snubber population and was evaluated with corrective action taken per the CPNPP corrective action program (CR-2016-004366). The evaluation of this failure concluded that the piping system to which this snubber was attached remained within design parameters and would have fulfilled its safety function. This snubber failed the Drag part of it test. See more detail below:

Snubber CC-1-007-034-A63K failed due to a higher drag value than allowed by the acceptance criteria. The snubber was disassembled to assess cause of failure. Inspection of removed parts showed that the recirculating ball screw assembly was degraded due to friction rubbing (would move side to side and wobbled on the shaft). This resulted in increasing high drag during testing and a failed test result. This condition has not been noted during any previous testing performed at CPNPP or by industry operating experience (OE). Also, the snubber location drawing BRHL CC-1-AB-046 shows this snubber as the only snubber located on this pipe line. All other restrains are of a rigid type, except for one spring can. This configuration is not known to exist at any other snubber location. Snubber CC-1-007-034-A63K was replaced. Due to this failure, 19 more snubbers were randomly selected from the Pacific Scientific (PSA) Mechanical Snubber population and tested for operational readiness, all 19 passed their test. The snubber population at CPNPP Unit 1 has been operating at a high level of performance for the past ten years and this performance provides reasonable assurance that the entire CPNPP Unit 1 snubber population will be capable of performing their required safety function over the extended interval proposed. Since 1RF20, there have been no dynamic events or transients during operation that might affect snubber performance or place a need for added emphasis on a specific snubber or group of snubbers.

Basis for Use

As evidenced by the CPNPP Unit 1 operational readiness test history during the past 10 years, the snubber population is well maintained within the examination, testing and service life monitoring program, and are performing well in their environment and operating conditions. There are no planned changes to the snubber environments or operating conditions that would affect the snubbers differently than represented in past surveillance testing. No deficiencies, adverse trends or open maintenance work orders were identified that would impact or degrade any snubber's performance capability and exclude it from this one-time interval extension RR. Each snubber in the scope of this RR will remain within the predicted service life interval, in accordance with ISTD-6100, "Predicted Service Life," through 1RF22. Considering the entire snubber population and the current level of acceptable performance, there is reasonable assurance that each snubber will continue to be operationally ready to perform their safety functions during the use of this RR.

In summary, based on the information provided above, snubber testing has demonstrated that the snubber population at CPNPP Unit 1 is reliable, and there have been no dynamic events or transients at CPNPP Unit 1 or recent operating experience that might affect snubber performance. Therefore, extending the testing interval for each snubber in the scope of this RR to the next refueling outage scheduled for the spring of 2022 (1RF22) would not adversely impact the function of the snubber or result in a reduction in plant safety.

In the current pandemic environment, performing the required tests would result in an increased risk of virus exposure to plant personnel and a reduction in occupational health and safety without a compensating benefit. Therefore, this one-time RR meets the criteria in 10 CFR 50.55a(z)(2) for relief on the basis that compliance results in hardship or unusual difficulty without a compensating increase in level of quality or safety during the current COVID-19 pandemic.

22. If needed, include additional information for Question 21:

23. Description of the Basis for Use:

Basis for Use

As evidenced by the CPNPP Unit 1 operational readiness test history during the past 10 years, the snubber population is well maintained within the examination, testing and service life monitoring program, and are performing well in their environment and operating conditions. There are no planned changes to the snubber environments or operating conditions that would affect the snubbers differently than represented in past surveillance testing. No deficiencies, adverse trends or open maintenance work orders were identified that would impact or degrade any snubber's performance capability and exclude it from this one-time interval extension RR. Each snubber in the scope of this RR will remain within the predicted service life interval, in accordance with ISTD-6100, "Predicted Service Life," through 1RF22. Considering the entire snubber population and the current level of acceptable performance, there is reasonable assurance that each snubber will continue to be operationally ready to perform their safety functions during the use of this RR.

In summary, based on the information provided above, snubber testing has demonstrated that the snubber population at CPNPP Unit 1 is reliable, and there have been no dynamic events or transients at CPNPP Unit 1 or recent operating experience that might affect snubber performance. Therefore, extending the testing interval for each snubber in the scope of this RR to the next refueling outage scheduled for the spring of 2022 (1RF22) would not adversely impact the function of the snubber or result in a reduction in plant safety.

24. If needed, include additional information for Question 23:

25. If requesting an alternative based on 10 CFR 50.55a(z)(2), describe hardship or unusual difficulty without compensating increase in the level of quality and safety associated with compliance with applicable code requirement. For requests under 10 CFR 50.55a(z)(1), leave this section blank.

On March 13, 2020, President Donald Trump declared the Coronavirus (COVID-19) pandemic a national emergency. In addition, Texas Governor Greg Abbott declared a state of disaster due to the COVID-19 pandemic on March 25, 2020. The U.S. Center for Disease Control (CDC) has determined that COVID-19 poses a serious public health risk. The CDC identified the majority of U.S. states reporting community spread of COVID-19. Currently CPNPP is operating in accordance with the CPNPP Pandemic Response Guideline. Due to the COVID-19 pandemic, there is a desire to minimize the potential of inadvertently spreading the COVID-19 virus to CPNPP personnel from outside contractors who perform testing for the

snubber program. Due to the potential spread of COVID-19 to CPNPP personnel, Vistra OpCo has identified performance of testing as a hardship without a compensating increase in the level of quality and safety in accordance with 10 CFR 50.55a(z)(2). As an alternative, Vistra OpCo is proposing to delay the testing from fall 2020 (1RF21) to spring 2022 (1RF22).

26. Proposed duration of the alternative:
The proposed alternative, upon approval, will be implemented at CPNPP, Unit 1, starting from 1RF21, which is scheduled to begin on October 18, 2020, through the end of refueling outage 1RF22, which is scheduled to begin in the spring of 2022.

27. Include any additional information, as necessary:

28. Precedents (optional):
Similar relief to extend snubber testing due to pandemic-related issues was verbally authorized by the NRC on April 4, 2020, to Energy Harbor Nuclear Corporation for Beaver Valley Power Station Unit 2, and to Vistra Energy for Comanche Peak Nuclear Power Plant Unit 2 (TXX-20027 / CP-2000262) on April 10, 2020 via "Verbal Authorization by the NRC Office of Nuclear Reactor Regulation for 10 CFR 50.55a Request L-20-118-SRR-1, Revision 0, Snubber Testing," dated April 3, 2020. (ML20095J099)

29. References:
1. American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code), 2004 Edition through the 2006 Addenda

2. 10CFR50.55a, Code and standards, June 3, 2020.

30. Do you have attachments?
Yes
- Full text of the CPNPP Snubber Relief Request
- Table 1 – Snubber Tests Requested for Deferral to 1RF22