

From: Galvin, Dennis
Sent: Wednesday, April 15, 2020 3:19 PM
To: Jack Hicks (Jack.Hicks@luminant.com)
Cc: Barnette, James; Struble, Garry; Dixon-Herrity, Jennifer; Mitchell, Matthew
Subject: Verbal Authorization of Comanche Peak Unit 2 Relief Requests 2A3-3, 2A3-4, and 2A3-5 (L-2020-LLR-0063, L-2020-LLR-0064, and L-2020-LLR-0065)
Attachments: L-2020-LLR-0063-65 Comanche Peak Other ISI Extension Verbal Authorization DORL 2020-04-15.pdf

Jack,

Please find the attached the written documentation of the verbal authorization of Comanche Peak Unit 2 Relief Requests 2A3-3, 2A3-4, and 2A3-5.

If you have any questions, please contact me at (301) 415-6256 or 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

Recipients:

"Barnette, James" <James.Barnette@luminant.com>

Tracking Status: None

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Tracking Status: None

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VERBAL AUTHORIZATION BY THE OFFICE NUCLEAR REGULATION
10 CFR 50.55a PROPOSED ALTERNATIVES 2A3-3, 2A3-4, and 2A3-5 TO DEFER
AUGMENTED INSERVICE INSPECTIONS DUE TO PANDEMIC (COVID-19)
COMANCHE PEAK NUCLEAR POWER PLANT, UNIT 2
VISTRA OPERATIONS COMPANY LLC
DOCKET NO. 50-446

Technical Evaluation read by Matthew Mitchell, Chief of the Piping and Head Penetration Branch, Office of Nuclear Reactor Regulation

By letter dated April 9, 2020 (Agencywide Documents Access and Management System ADAMS Accession No. ML20100G562), Vistra Operations Company LLC (the licensee), pursuant to 10 CFR 50.55a(z)(2), requested alternatives to some of the Augmented inservice inspection (ISI) program requirements of Title 10 of the Code of Federal Regulations (10 CFR) 50.55a(g)(6)(ii). The proposed alternatives address inspection requirements for control rod drive mechanism (CRDM) nozzle penetrations, reactor pressure vessel (RPV) bottom mounted instrument (BMI) nozzle penetrations, and hot leg dissimilar metal welds and safe end-to-pipe welds at Comanche Peak Nuclear Power Plant (Comanche Peak), Unit 2.

The licensee has requested NRC approval to delay the examinations required by 10 CFR 50.55a(g)(6)(ii) for 18 months due to the hardship caused by potential spread of the COVID-19 virus to Comanche Peak, Unit 2 personnel and the surrounding community. Additionally, the outside contractors used to perform nondestructive examinations at Comanche Peak, Unit 2 are affected by travel restrictions and quarantine requirements. As the ongoing Coronavirus Disease 2019 (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. 5121-5207 and the U.S. Center for Disease Control (CDC) has determined that COVID-19 poses a serious public health risk, NRC staff finds that the licensee's hardship justification is acceptable.

The licensee is required by 10 CFR 50.55a(g)(6)(ii)(D)(1) to implement the inspection requirements of American Society for Mechanical Engineers (ASME) Code Case N-729-4, "Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds Section XI, Division 1," for their RPV upper head. The head is categorized as Item No. B4.10, "Head with UNS N06600 nozzles and UNS N06082 or UNS W86182 partial penetration welds." ASME Code Case N-729-4 requires a visual examination (VE) of the upper RPV upper head to look for signs of possible nozzle leakage every refueling outage. Comanche Peak, Unit 2 is categorized as a "cold" head, meaning that the dissimilar metal partial-penetration welds are exposed to coolant at cold leg temperatures of approximately 560°F (293°C). The licensee is proposing to not perform the VE in the upcoming refueling outage, designated 2RF18, and perform the examination in the next refueling outage, 2RF19, which is scheduled for the fall of 2021. As a compensatory measure for not conducting a VE meeting the requirements of Code Case N-729-4, the licensee will perform a boric acid examination of the head by observing the flange area and inspecting underneath the CRDM cooling shroud support ring gap, looking for signs of boric acid leakage.

The licensee is required by 10 CFR 50.55a(g)(6)(ii)(E)(1) to implement ASME Code Case N-722-1, "Additional Examinations for PWR Pressure Retaining Welds in Class 1 Components Fabricated with Alloy 600/82/182 Materials Section XI, Division 1," for the RPV lower head BMI nozzle penetrations. ASME Code Case N-722-1 requires VE of RPV BMI nozzle penetrations to find possible signs of nozzle leakage through the BMI nozzle partial-penetration welds every

other refueling outage. The licensee is requesting to delay the required BMI nozzle VE from refueling outage 2RF18 to refueling outage 2RF19. As a compensatory measure for not conducting the VE meeting the requirements of Code Case N-722-1, the licensee will perform a VE of the bottom head from the edge of the RPV lower head mirror insulation package by removal of select insulation panels to gain access which will allow examinations for signs of boric acid leakage.

The licensee is required by 10 CFR 50.55a(g)(6)(ii)(F) to implement ASME Code Case N-770-2, "Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated with UNS N06082 or UNS W86182 Weld Filler Material With or Without Application of Listed Mitigation Activities Section XI, Division 1," for the hot leg and cold leg dissimilar metal welds. The four subject dissimilar metal nozzle-to-safe end welds are categorized as Examination Item A-2, "Unmitigated butt weld at Hot Leg operating temperature $(-2410) \leq 625^{\circ}\text{F}$ (329°C)." The four similar metal safe end-to-pipe welds are categorized as Risk Informed (R-A) Item Number R1.20, "Welds Not Subject to a Degradation Mechanism." Code Case N-770-2 requires that the four dissimilar metal nozzle-to-safe end welds be volumetrically examined every five years, and the corresponding safe end-to-pipe welds are inspected at the same time. The licensee is requesting to delay the volumetric examinations from refueling outage 2RF18 to refueling outage 2RF19, which would result in the dissimilar metal weld examinations being conducted after six years, requiring a one-year extension. As a compensatory measure for not conducting the volumetric examinations within the required five years, the licensee would instead perform a visual examination of the eight welds.

In addition to the compensatory visual examinations, the licensee will implement the unit's leakage monitoring program in accordance with plant Technical Specifications, procedures, and administrative controls as described in the letter dated April 9, 2020. 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 were deferred.

Based on the information provided above, the NRC staff finds that there is reasonable assurance of adequate protection based on:

- The compensatory visual examinations of the upper and lower RPV heads and the piping welds.
- The operating experience of the "cold" RPV upper heads, BMI nozzles, and nozzle-to-safe end dissimilar metal welds and safe end-to-pipe welds.
- The enhanced leakage monitoring with the capability of detecting 0.1 gpm of unidentified leakage and the administrative controls used to detect signs of leakage.

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 Piping and Head Penetrations Branch.

The NRC staff concludes that the proposed inspection deferral for Comanche Peak, Unit 2 will provide reasonable assurance of adequate safety for the upper head CRDM nozzles, the lower head BMI nozzles, and the subject welds until the next scheduled refueling outage currently scheduled to begin October 3, 2021. The NRC staff finds that complying with the inspection schedule requirements of ASME Code Cases N-729-4, N-722-1, and N-770-2, as mandated by 10 CFR 50.55a(g)(6)(ii), 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) for deferral of these examinations.

Therefore, effective April 15, 2020, the NRC authorizes the use of the proposed alternatives 2A3-3, 2A3-4, and 2A3-5 at Comanche Peak, Unit 2 until completion of the next scheduled refueling outage currently scheduled for the Fall of 2021.

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

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