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U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Ref RG 1.133 Rev. 1

Subject: Comanche Peak Nuclear Power Plant (CPNPP)
Docket No. 50-446
SPECIAL REPORT 2-SR-20-001-00
INOPERABLE LOOSE PARTS MONITORING SYSTEM REPORT

Dear Sir or Madam:

Enclosed is a 10-day Special Report titled "COMANCHE PEAK NUCLEAR POWER PLANT - UNIT 2, SPECIAL REPORT 2-SR-20-001-00, INOPERABLE LOOSE PARTS MONITORING SYSTEM" submitted in accordance with Regulatory Guide 1.133, LOOSE-PART DETECTION PROGRAM FOR THE PRIMARY SYSTEM OF LIGHT-WATER-COOLED REACTORS.

This letter contains no new regulatory commitments.

If you have any questions regarding this submittal, please contact Garry Struble at (254) 897-6628 or garry.struble@luminant.com.

Sincerely,

Thomas P. McCool

Enclosure: COMANCHE PEAK NUCLEAR POWER PLANT - UNIT 2, SPECIAL REPORT
2-SR-20-001-00, INOPERABLE LOOSE PARTS MONITORING SYSTEM

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VISTRA OPERATIONS COMPANY LLC
COMANCHE PEAK NUCLEAR POWER PLANT – UNIT 2
SPECIAL REPORT 2-SR-20-001-00
INOPERABLE LOOSE PARTS MONITORING SYSTEM

1.0 Report Requirements

This special report is submitted in accordance with Regulatory Guide 1.133, Revision 1, Loose-Part Detection Program for the Primary System of Light Water Cooled Reactors. Specifically, Technical Requirements TR LCO 13.4.31, Loose Part Detection System requires the Loose Part Detection System to be OPERABLE in MODES 1, and 2 for all channels.

With one or more one required channel inoperable, Condition A.1 requires the inoperable channel be restored to OPERABLE status within 30 days. If the Required Action and associated Completion Time of Condition A is not met then, RG 1.133, Revision 1 requires a special report be prepared and submitted to the Commission.

When a report is required by TR LCO 13.4.31, "Loose Part Detection System," a report shall be submitted within the following 10 days. The report shall outline the cause of the malfunction, and the plans for restoring the channels to an operable status.

2.0 Event Description

The primary purpose of the loose-part detection program is the early detection of loose metallic parts in the primary system. Early detection can provide the time required to avoid or mitigate safety-related damage to or malfunctions of primary system components. The loose-part detection program also serves a second purpose since it can minimize radiation exposure to station personnel by providing for the early detection and general location of abnormal structural conditions.

In accordance with Technical Requirement TR LCO 13.4.31, the Loose Part Detection System shall be OPERABLE in Modes 1 and 2. With one or more Loose Part Detection System channels inoperable, the inoperable channel must be restored to OPERABLE status within 30 days.

At Comanche Peak Nuclear Power Plant (CPNPP) the Loose Part Detection System is called the Loose Parts Monitoring System (LPMS).

On May 14, 2020, CPNPP Unit 2 entered CONDITION A of TR LCO 13.4.31 due to failure of Loose Parts Monitoring System, Channel 8, Reactor Vessel Top 20.

3.0 Required Information

3.1 Preplanned Alternate Methods of Monitoring

There are eight active monitoring channels so with Channel 8, Reactor Vessel Top 20 out of service the other seven channels provide monitoring capability. Specifically, Channel 7, Reactor Vessel Top 19 can be used to monitor reactor vessel head for loose parts.

Surveillance TRS 13.4.31 is performed daily to check each loose parts detection channel audio monitor to verify normal background levels. With channel 8 out of service TR LCO 13.4.31 is not satisfied. This condition is being administratively tracked by Limiting Condition for Operation Action Requirement (LCOAR) A2-20-0311.

3.2 Cause of the Inoperability

The cause of the malfunction has not been identified, but it appears to be either a module within the LPMS cabinet failure or a failure of the cable from the reactor vessel head to the LPMS. The failure has caused "white noise" to be present on the affected channel rendering it inoperable.

3.3 Plans and Schedule for Restoring the Instrumentation Channels of the Function to OPERABLE Status

On June 8, 2020 work on the inoperable channel was scheduled to be performed during the next Unit 2 refueling outage. The outage is scheduled for the fall of 2021 (2RF19).

Repair or replacement is based on parts availability and/or cause of module failure. Based on prior experience with a similar failure on Unit 1, the cause appears to be related to the cable from the reactor vessel head to the LPMS and cannot be repaired until the next Unit 2 refueling outage in the fall of 2021.