



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION IV  
1600 EAST LAMAR BOULEVARD  
ARLINGTON, TEXAS 76011-4511

November 03, 2021

Mr. Ken Peters, Senior Vice President  
and Chief Nuclear Officer  
VISTRA Operating Company, LLC  
P.O. Box 1002  
Glen Rose, TX 76043

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2 –  
INTEGRATED INSPECTION REPORT 05000445/2021003 AND  
05000446/2021003

Dear Mr. Peters:

On September 30, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Comanche Peak Nuclear Power Plant, Units 1 and 2. On October 14, 2021, the NRC inspectors discussed the results of this inspection with Mr. Thomas McCool and other members of your staff. The results of this inspection are documented in the enclosed report.

No findings or violations of more than minor significance were identified during this inspection.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

Gregory E. Werner, Chief  
Reactor Projects Branch B  
Division of Reactor Projects

Docket Nos. 05000445 and 05000446  
License Nos. NPF-87 and NPF-89

Enclosure:  
As stated  
cc w/ encl: Distribution via LISTSERV®

COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2 – INTEGRATED  
INSPECTION REPORT 05000445/2021003 AND 05000446/2021003 – DATED NOVEMBER  
03, 2021

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**U.S. NUCLEAR REGULATORY COMMISSION  
Inspection Report**

Docket Numbers: 05000445 and 05000446

License Numbers: NPF-87 and NPF-89

Report Numbers: 05000445/2021003 and 05000446/2021003

Enterprise Identifier: I-2021-003-0107

Licensee: VISTRA Operating Company, LLC

Facility: Comanche Peak Nuclear Power Plant, Units 1 and 2

Location: Glen Rose, TX

Inspection Dates: July 1, 2021 to September 30, 2021

Inspectors: N. Day, Resident Inspector  
J. Ellegood, Senior Resident Inspector  
D. Proulx, Senior Project Engineer  
H. Strittmatter, Project Engineer  
B. Bergeon, Examiner

Approved By: Gregory E. Werner, Chief  
Reactor Projects Branch B  
Division of Reactor Projects

Enclosure

## **SUMMARY**

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Comanche Peak Nuclear Power Plant, Units 1 and 2, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

### **List of Findings and Violations**

No findings or violations of more than minor significance were identified.

### **Additional Tracking Items**

None.

## PLANT STATUS

Units 1 and 2 operated at or near rated thermal power for the entire inspection period.

## INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), resident and regional inspectors were directed to begin telework and to remotely access licensee information using available technology. During this time, the resident inspectors performed periodic site visits each week, increasing the amount of time on-site as local COVID-19 conditions permitted. As part of their on-site activities, resident inspectors conducted plant status activities as described in IMC 2515, Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution," observed risk significant activities; and completed on-site portions of IPs. In addition, resident and regional baseline inspections were evaluated to determine if all or a portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In some cases, portions of an IP were completed remotely and on-site. The inspections documented below met the objectives and requirements for completion of the IP.

## REACTOR SAFETY

### 71111.04 - Equipment Alignment

#### Partial Walkdown Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

- (1) Unit 2, motor driven auxiliary feedwater pump A on July 7, 2021
- (2) Unit 1, 1B2-1 electrical lineup on July 21, 2021
- (3) Unit 1, chemical addition system on July 28, 2021
- (4) Unit 1, train B containment spray system on August 18, 2021
- (5) Unit 2, train B safety injection system on August 31, 2021

### 71111.05 - Fire Protection

#### Fire Area Walkdown and Inspection Sample (IP Section 03.01) (4 Samples)

The inspectors evaluated the implementation of the fire protection program by conducting a walkdown and performing a review to verify program compliance, equipment functionality, material condition, and operational readiness of the following fire areas:

- (1) Unit 1, train A safeguards building switchgear room on August 19, 2021
- (2) Unit 1, safeguards building electrical equipment room on August 23, 2021
- (3) Unit 1, train B safeguards building switchgear room on August 25, 2021
- (4) Unit 2, train B safeguards building switchgear room on August 26, 2021

### 71111.06 - Flood Protection Measures

#### Inspection Activities - Internal Flooding (IP Section 03.01) (1 Sample)

The inspectors evaluated internal flooding mitigation protections in the:

- (1) Standby service water pumphouse on August 25-26, 2021

### 71111.11A - Licensed Operator Requalification Program and Licensed Operator Performance

#### Requalification Examination Results (IP Section 03.03) (1 Sample)

- (1) The inspectors reviewed and evaluated the licensed operator examination failure rates for the requalification annual operating exam administered from April 21, 2021, through May 21, 2021.

### 71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

#### Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (1 Sample)

- (1) The inspectors observed and evaluated licensed operator performance in the control room during Unit 1 service water A quarterly system testing on September 22, 2021.

#### Licensed Operator Requalification Training/Examinations (IP Section 03.02) (1 Sample)

- (1) The inspectors observed and evaluated licensed operator requalification training scenario LO44.A22.TCA on September 10, 2021.

### 71111.12 - Maintenance Effectiveness

#### Maintenance Effectiveness (IP Section 03.01) (1 Sample)

The inspectors evaluated the effectiveness of maintenance to ensure the following structures, systems, and components (SSCs) remain capable of performing their intended function:

- (1) Unit 2 plant computer on September 8, 2021

### 71111.13 - Maintenance Risk Assessments and Emergent Work Control

#### Risk Assessment and Management Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated the accuracy and completeness of risk assessments for the following planned and emergent work activities to ensure configuration changes and appropriate work controls were addressed:

- (1) Unit 2, station transformer outage on July 8 2021
- (2) Unit 1, solid state protection system power supply replacement on August 18, 2021
- (3) Unit 1, channel A N-16 monitor failure and replacement on August 27, 2021
- (4) Unit 2, outage risk profile for Refueling Outage 19 which begins October 3, 2021
- (5) Risk profile issues discussed in IR-2021-005614 and TR-2021-005609 due to new Phoenix software on September 9, 2021

### 71111.15 - Operability Determinations and Functionality Assessments

#### Operability Determination or Functionality Assessment (IP Section 03.01) (3 Samples)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

- (1) Electrical Bus 1EA1 undervoltage protection circuit PB-3B/1EA1 and PB-4B/1EA1 when depressed did not light
- (2) Component Cooling Water Heat Exchanger 1-02 fouling as reported on August 4, 2021
- (3) Spiking of source range nuclear instrument start up rate while deenergized

### 71111.18 - Plant Modifications

#### Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

- (1) Unit 1, temporary lube oil purification skid for the main feed pump A

### 71111.19 - Post-Maintenance Testing

#### Post-Maintenance Test Sample (IP Section 03.01) (1 Sample)

The inspectors evaluated the following post-maintenance test activities to verify system operability and functionality:

- (1) Unit 1, safety injection pump breaker replacement on July 13, 2021

### 71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Surveillance Tests (other) (IP Section 03.01) (3 Samples)

- (1) Unit 1, lube oil analysis for component cooling water pumps analyzed July 20, 2021
- (2) Diesel Generator 1-01 monthly operability test on August 26, 2021
- (3) Unit 1, Turbine Driven Auxiliary Feedwater Pump 1-01 per Work Order 538334 on September 2, 2021

Inservice Testing (IP Section 03.01) (1 Sample)

- (1) Unit 1, Station Service Water System 1-01 operability test per Work Order 582265

71114.06 - Drill Evaluation

Select Emergency Preparedness Drills and/or Training for Observation (IP Section 03.01) (1 Sample)

- (1) Emergency response organization drill conducted on August 4, 2021

**OTHER ACTIVITIES – BASELINE**

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

MS06: Emergency AC Power Systems (IP Section 02.05) (2 Samples)

- (1) Unit 1 (July 1, 2020, through June 30, 2021)
- (2) Unit 2 (July 1, 2020, through June 30, 2021)

MS07: High Pressure Injection Systems (IP Section 02.06) (2 Samples)

- (1) Unit 1 (July 1, 2020, through June 30, 2021)
- (2) Unit 2 (July 1, 2020, through June 30, 2021)

MS08: Heat Removal Systems (IP Section 02.07) (2 Samples)

- (1) Unit 1 (July 1, 2020, through June 30, 2021)
- (2) Unit 2 (July 1, 2020, through June 30, 2021)

MS09: Residual Heat Removal Systems (IP Section 02.08) (2 Samples)

- (1) Unit 1 (July 1, 2020, through June 30, 2021)
- (2) Unit 2 (July 1, 2020, through June 30, 2021)

BI01: Reactor Coolant System (RCS) Specific Activity Sample (IP Section 02.10) (2 Samples)

- (1) Unit 1 (April 1, 2020, through June 30, 2021)
- (2) Unit 2 (April 1, 2020, through June 30, 2021)



BI02: RCS Leak Rate Sample (IP Section 02.11) (2 Samples)

- (1) Unit 1 (July 1, 2020, through June 30, 2021)
- (2) Unit 2 (July 1, 2020, through June 30, 2021)

71152 - Problem Identification and Resolution

Annual Follow-up of Selected Issues (IP Section 02.03) (2 Partials)

The inspectors reviewed the licensee's implementation of its corrective action program related to the following issues:

- (1) (Partial)  
Maintenance of communications equipment used for event response
- (2) (Partial)  
Operator-work arounds

**INSPECTION RESULTS**

No findings were identified.

**EXIT MEETINGS AND DEBRIEFS**

The inspectors verified no proprietary information was retained or documented in this report.

- On August 18, 2021, the inspectors presented the annual licensed operator requalification inspection results to Mr. J. Ruby, Supervisor, Exams and other members of the licensee staff.
- On October 14, 2021, the inspectors presented the integrated inspection results to Mr. T. McCool and other members of the licensee staff.

## DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.04	Procedures	SOP-204A-CT-V03	Chemical Addition Tank Valve Lineup	May 15, 2018
71111.04	Procedures	SOP-304B	Auxiliary Feedwater system	13
71111.04	Procedures	SOP-608B	120, 208, 208/120 and 120/240 VAC Distribution System	13
71111.13	Miscellaneous		2RF19 Risk Assessment Review	C
71111.13	Procedures	STI-600.01	Protecting Plant Equipment and Sensitive Equipment Controls	3
71111.15	Corrective Action Documents	CR-2021-004406	While completing OPT-215-11 8.2.2.1.D, it was noted that PB-3B/1EA1 and PB-4B/1EA1 when depressed did not light. While held in the midposition the light did work (operability determination)	07/03/2021
71111.15	Corrective Action Documents	CR-YYYY-NNNN	2000-1681	
71111.15	Drawings	E1-0030-Sh. 21	Schematic of 1EA1 UV Aux relays	CP-11
71111.15	Miscellaneous	TMVTM_CP-0425-001	Vendor documentation for 6.9KV switchgear	
71111.15	Procedures	OPT-215		
71111.18	Corrective Action Documents	Tracking Report (TR)	2021-004495	
71111.18	Drawings	SK-0001-21-000024-01-01	Flow Diagram Turbine Oil Purification	1
71111.18	Engineering Changes	Final Design Authorization	FDA-2021-000024-01-01	0
71111.18	Engineering Changes	Final Design Authorization	FDA-2021-000024-02-01	1
71111.18	Miscellaneous	EPRI Technical Report 1004384	Lube Oil Predictive Maintenance, Handling, and Quality Assurance Guideline	12/2002
71111.18	Miscellaneous	Licensee Event Report 2020-001-00	Main Feedwater Pump Failure To Trip	02/11/2021
71111.18	Procedures	Vendor Procedure	Hot Tap Using An IP-100 Type Hot Tap Machine	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		HTS-5104		
71111.19	Procedures	SOP-201A	Safety Injection System	18
71111.22	Miscellaneous		Lubrication Oil analysis reports for unit 1 and 2 component cooling water pumps	07/20/2021
71114.06	Miscellaneous		Event Notification forms for Drill on August 4, 2021	
71114.06	Miscellaneous		August 4, 2021, Blue Team Exercise Summary	
71114.06	Procedures	ABN-907	Acts of Nature	16