



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

February 9, 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 05000445/2020004 AND
05000446/2020004

Dear Mr. Peters:

On December 31, 2020, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Comanche Peak Nuclear Power Plant, Units 1 and 2. On January 14, 2021, the NRC inspectors discussed the results of this inspection with Mr. T. McCool, Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

Three findings of very low safety significance (Green) are documented in this report. Each of these findings involved violations of NRC requirements. We are treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violations or the significance or severity of the violations documented in this inspection report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement; and the NRC Resident Inspector at Comanche Peak Nuclear Power Plant, Units 1 and 2.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; and the NRC Resident Inspector at Comanche Peak Nuclear Power Plant, Units 1 and 2.

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,

Neil F. O'Keefe, Chief
Reactor Projects Branch B
Division of Reactor Projects

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

Enclosure:
As stated

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COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2 INTEGRATED INSPECTION REPORT 05000445/2020004 AND 05000446/2020004 – DATED FEBRUARY 9, 2021

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DATE	2/3/2021	2/8/2021			

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

Docket Numbers: 05000445 and 05000446

License Numbers: NPF-87 and NPF-89

Report Numbers: 05000445/2020004 and 05000446/2020004

Enterprise Identifier: I-2020-004-0010

Licensee: VISTRA Operating Company, LLC

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

Location: Glen Rose, Texas

Inspection Dates: October 1, 2020 to December 31, 2020

Inspectors: D. Antonangeli, Health Physicist
K. Clayton, Senior Operations Engineer
N. Day, Resident Inspector
M. Doyle, Operations Engineer
J. Ellegood, Senior Resident Inspector
R. Fanner, Operations Engineer
S. Hedger, Emergency Preparedness Inspector
J. Melfi, Project Engineer
J. O'Donnell, Senior Health Physicist
D. Proulx, Senior Project Engineer
W. Sifre, Senior Reactor Inspector

Approved By: Neil F. O'Keefe, 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

Failure to Critique Weaknesses During a Emergency Preparedness Drill			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Emergency Preparedness	Green NCV 05000445,05000446/2020004-01 Open/Closed	[H.1] - Resources	71114.05
The inspectors identified a Green, non-cited violation of 10 CFR 50.47(b)(14) for the licensee's failure to identify and correct weaknesses in emergency response organization performance during a full-scale drill conducted on October 10, 2018. Specifically, the licensee did not identify performance that would have precluded effective implementation of the emergency plan if it occurred during an actual radiological emergency.			
Failure to Correct Weaknesses During Drills and Exercises			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Emergency Preparedness	Green NCV 05000445,05000446/2020004-02 Open/Closed	[P.2] - Evaluation	71114.05
The inspectors identified a Green, non-cited violation of 10 CFR 50.47(b)(14) for the failure to correct a deficiency identified in a 2018 multi-facility drill. Specifically, radiation protection staff did not provide a range of protective actions to emergency workers during a drill conducted October 10, 2018, and this same deficiency (weakness) was repeated during the November 6, 2019 biennial exercise. The inspectors determined that the licensee's corrective actions for the issue were incomplete and did not address the extent of condition.			
Error Caused Trip of Safety Chiller			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000446/2020004-03 Open/Closed	[H.12] - Avoid Complacency	71152
On September 14, 2020 a finding and associated non-cited violation was self-revealed when an operator removed a tag on a safety chiller. Specifically, after completing maintenance and declaring the chiller operable and while removing a Test in Progress tag, the operator accidentally repositioned a control power switch which tripped the chiller and rendered it inoperable until it could be recovered.			

Additional Tracking Items

None.

PLANT STATUS

Unit 1 began the inspection period at 98 percent power in coast down operations for a planned upcoming refueling outage. On October 10, 2020, the licensee shut down Unit 1 for a planned refueling outage. On November 4, the licensee finished the refueling outage and restarted Unit 1. On November 6, 2020 while at 41 percent power the licensee shutdown the unit to repair a steam leak. After completing repairs on November 8, the licensee restarted Unit 1, and reached full power on November 11, 2020.

Unit 2 operated at or near full power for the 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 Disease 2019 (COVID-19), resident 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; conducted plant status activities as described in IMC 2515, Appendix D, "Plant Status," 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 portions 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

71111.01 - Adverse Weather Protection

Impending Severe Weather Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated the adequacy of the overall preparations to protect risk-significant systems from impending severe weather due to thunderstorm warning on October 23, 2020.

External Flooding Sample (IP Section 03.03) (1 Sample)

- (1) The inspectors evaluated that flood protection barriers, mitigation plans, procedures, and equipment are consistent with the licensee's design requirements and risk analysis assumptions for coping with external flooding for the Unit 1 safeguards building and Unit 1 emergency diesel generator building on November 18, 2020.

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (4 Samples)

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

- (1) Unit 1, residual heat removal B on October 9, 2020
- (2) Unit 1, train B auxiliary feedwater on October 30, 2020
- (3) Unit 2, safety chilled water B on November 20, 2020
- (4) Motor and diesel driven fire pumps on November 23, 2020

Complete Walkdown Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated system configurations during a complete walkdown of the Unit 2 component cooling water 2-02 system on December 4, 2020.

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) Main control room fire area EO computer room zones EO66 and EO69 on December 8, 2020
- (2) Control building air conditioning units Fire Area EA zones EA73 and EA74 on December 16, 2020
- (3) Unit 1, Fire Area SA residual heat removal pump 1-02 on December 21, 2020
- (4) Unit 1, Fire Area SB residual heat removal pump 1-01 on December 21, 2020

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) Units 1 and 2 diesel generator rooms.

71111.08P - Inservice Inspection Activities (PWR)

PWR Inservice Inspection Activities Sample (IP Section 03.01) (1 Sample)

- (1) The licensee did not perform inservice examination activities during this Unit 1 refueling outage, so the inspector reviewed documentation of examinations performed during the most recent operating cycle. The inspectors verified that the reactor coolant system boundary and risk-significant piping system boundaries are appropriately monitored for degradation and that repairs and replacements were appropriately fabricated, examined and accepted by reviewing the following activities

from October 12 to October 29, 2020:

03.01.a - Nondestructive Examination and Welding Activities.

- Ultrasonic Examinations:
 - a. Exam Number TBX-1-1100A-20, Reactor Pressure Vessel Inlet Nozzle to Vessel Weld (Loop 4).
 - b. Exam Number TBX-1-1100A-21, Reactor Pressure Vessel Inlet Nozzle to Vessel Weld (Loop 3).
 - c. Exam Number TBX-1-1100A-22, Reactor Pressure Vessel Outlet Nozzle to Vessel Weld (Loop 3).
 - d. Exam Number TBX-1-1100A-23, Reactor Pressure Vessel Outlet Nozzle to Vessel Weld (Loop 2).
 - e. Exam Number TBX-1-4101-5, Reactor Coolant Pipe to Elbow Weld.
 - f. Exam Number AF-1-SB-026B-41, Auxiliary Feedwater Pipe to Elbow Weld.
 - g. Exam Number AF-1-SB-027B-54, Auxiliary Feedwater Elbow to Pipe Weld.

- Combined Ultrasonic and Eddy Current Examinations:
 - a. Exam Number TBX-1-4200-1, Reactor Pressure Vessel Nozzle to Safe End Weld.
 - b. Exam Number TBX-1-4200-13, Reactor Coolant System Elbow to Safe End Weld.
 - c. Exam Number TBX-1-4300-1, Reactor Pressure Vessel Nozzle to Safe End Weld.
 - d. Exam Number TBX-1-4400-2, Reactor Pressure Vessel Safe End to Pipe Weld.

- Magnetic Particle Examinations:
 - a. Exam Number TBX-2-2201-H31, Feedwater Welded Attachment.
 - b. Exam Number TBX-2-2301-H4, Feedwater Welded Attachment.

- Dye Penetrant Examinations:
 - a. Exam Number TBX-2-2568-H15, Safety Injection Welded Attachment.
 - b. Exam Number TBX-2-2568-H28, Safety Injection Welded Attachment.

- Work Order 5948291, combined Gas Tungsten Arc Weld (GTAW) and Single Metal Arc Weld (SMAW) repair of 1CC-0283 socket weld - Residual Heat Removal Pump 1-01 Component Cooling Water return flow indicator.

03.01.c – Pressurized-Water Reactor Boric Acid Corrosion Control Activities.

- CR-2020-003647 - During VT-2 walk down on Unit 2, personnel discovered a 4-6 DPM leak on 2-HV-4166.
- CR-2020-003653 - During VT-2 inspections using WO 5705670 Unit 2 seal table E5 connection is weeping.
- CR-2020-003656 - During a VT-2 inspection in Unit 2 containment 3 boric acid leaks were identified.
- CR-2020-003669 - Active (Wet) boric acid leakage was observed at pipe cap of 2CS-0081 during walkdown.
- CR-2020-004257 - Active boric acid leakage from valves 2 CS-0212 and 2 CS-0213.

- CR-2020-004091 - During the performance of Unit 2 UT exams multiple wet active boric acid leaks were identified in containment.

The inspector reviewed 19 notifications that dealt with inservice inspections issues and found that items were entered into the corrective action program at the appropriate level and addressed correctly.

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 on August 8, to September 28, 2020.

71111.11B - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Requalification Program (IP Section 03.04) (1 Sample)

- (1) Biennial Requalification Written Examinations

The inspectors evaluated the quality of the licensed operator biennial requalification written examination administered on September 17, 2020 and September 24, 2020 .

Annual Requalification Operating Tests

The inspectors evaluated the adequacy of the facility licensee's annual requalification operating test.

Administration of an Annual Requalification Operating Test

The inspectors evaluated the effectiveness of the facility licensee in administering requalification operating tests required by 10 CFR 55.59(a)(2) and that the facility licensee is effectively evaluating their licensed operators for mastery of training objectives.

Requalification Examination Security

The inspectors evaluated the ability of the facility licensee to safeguard examination material, such that the examination is not compromised.

Remedial Training and Re-examinations

The inspectors evaluated the effectiveness of remedial training conducted by the licensee, and reviewed the adequacy of re-examinations for licensed operators who did not pass a required requalification examination.

Operator License Conditions

The inspectors evaluated the licensee's program for ensuring that licensed operators meet the conditions of their licenses.

Control Room Simulator

The inspectors evaluated the adequacy of the facility licensee's control room simulator in modeling the actual plant, and for meeting the requirements contained in 10 CFR 55.46.

Problem Identification and Resolution

The inspectors evaluated the licensee's ability to identify and resolve problems associated with licensed operator performance.

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 during Unit 1 shutdown for the refuel outage on October 10, 2020.

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

- (1) The inspectors observed and evaluated licensed operator just-in-time training for the Unit 1 refuel outage on October 5, 2020.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (3 Samples)

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

- (1) Safety related electronic power supplies
- (2) Unit 1, safety chilled water system
- (3) Units 1 and 2, radiation monitors

Quality Control (IP Section 03.02) (1 Sample)

The inspectors evaluated the effectiveness of maintenance and quality control activities to ensure the following SSC remains capable of performing its intended function:

- (1) Unit 1, service water pump 1-02 motor replacement on October 20, 2020

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (2 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 1, risk profile for refueling outage 21.
- (2) Increased risk during core reload on October 20, 2020

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (6 Samples)

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

- (1) Unit 2, service water pump B following flow and pressure drop
- (2) Unit 1, train A solid state protection system (SSPS) following breaker trip
- (3) Unit 1, residual heat removal (RHR) pump A following operation without flow
- (4) Unit 1, pressure transmitters PT- 0505 and -0506 with erratic indications.
- (5) Unit 2, P10 permissive due to failed transformer on November 18, 2020
- (6) Unit 1, station service water pump 1-02 met alert inservice test (IST) criteria on November 30, 2020

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (2 Samples)

The inspectors evaluated the following temporary or permanent modifications:

- (1) Reactor vessel level indication system modification to jumper out a thermocouple
- (2) Upgraded control cards for pressurizer spray control and other systems

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (8 Samples)

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

- (1) Unit 2, train A safety injection pump on October 1, 2020
- (2) Unit 1, station service water pump motor 1-02 on October 19, 2020
- (3) Unit 1, main generator exciter following ground on the stator on November 5, 2020
- (4) Control room air condition X-02 condenser closed loop cooling water return valve on November 7, 2020
- (5) Unit 2, power range neutron Flux N43 power supply replacement on November 17, 2020
- (6) Unit 1, emergency diesel generator A on November 19, 2020
- (7) Unit 1, stations service water pump 1-02 due to new baseline IST data on November 30, 2020
- (8) Unit 2, turbine driven auxiliary feedwater pump following steam supply valve maintenance on December 12, 2020

71111.20 - Refueling and Other Outage Activities

Refueling/Other Outage Sample (IP Section 03.01) (2 Samples)

- (1) The inspectors evaluated 1RFO 21 from October 8 to November 4, 2020.
- (2) The inspectors evaluated an unplanned outage for repair of an instrument line on the Unit 1 high pressure turbine from November 6 through 8, 2020.

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Inservice Testing (IP Section 03.01) (2 Samples)

- (1) Unit 1, station service water pump 1-02 replacement and IST baseline on October 30, 2020.
- (2) Unit 1, residual heat removal A quarterly operability test on November 19, 2020.

Containment Isolation Valve Testing (IP Section 03.01) (3 Samples)

- (1) Unit 2, leak rate testing per work order 5700799,
- (2) Unit 1, personnel air lock leak rate testing per work order 5979970 on November 11, 2020.
- (3) Unit 2, personnel air lock leak rate testing per work order 5979966 on November 11, 2020.

FLEX Testing (IP Section 03.02) (1 Sample)

- (1) FLEX cable inspection on November 11, 2020.

71114.02 - Alert and Notification System Testing

Inspection Review (IP Section 02.01-02.04) (1 Sample)

- (1) The inspectors evaluated the maintenance and testing of the alert and notification system from October 13, 2018 to September 28, 2020.

71114.03 - Emergency Response Organization Staffing and Augmentation System

Inspection Review (IP Section 02.01-02.02) (1 Sample)

- (1) The inspectors evaluated the readiness of the Emergency Preparedness Organization from October 13, 2018 to September 28, 2020. Inspectors also evaluated the licensee's ability to staff their emergency response facilities in accordance with emergency plan commitments.

71114.04 - Emergency Action Level and Emergency Plan Changes

Inspection Review (IP Section 02.01-02.03) (1 Sample)

- (1) The inspectors evaluated the 10 CFR 50.54(q) emergency plan change process and practices between October 13, 2018 and September 28, 2020. This involved review of licensee screening and evaluation documentation. The reviews of the change process documentation do not constitute NRC approval.

71114.05 - Maintenance of Emergency Preparedness

Inspection Review (IP Section 02.01 - 02.11) (1 Sample)

- (1) The inspectors evaluated the maintenance of the emergency preparedness program between October 13, 2018 and September 28, 2020. The evaluation reviewed the conduct of drills and exercises, licensee audits and assessment, and the maintenance of equipment important to emergency preparedness.

RADIATION SAFETY

71124.03 - In-Plant Airborne Radioactivity Control and Mitigation

Permanent Ventilation Systems (IP Section 03.01) (1 Sample)

The inspectors evaluated the configuration of the following permanently installed ventilation systems:

- (1) Control Room Ventilation System for Units 1 and 2

Temporary Ventilation Systems (IP Section 03.02) (1 Sample)

The inspectors evaluated the configuration of the following temporary ventilation systems:

- (1) Portable HEPA filter ventilation unit (HP 7101) located on 841' elevation of the Fuel Handling Building supporting the Cask Washdown Pit.

Use of Respiratory Protection Devices (IP Section 03.03) (1 Sample)

- (1) The inspectors evaluated the licensee's use of respiratory protection devices.

Self-Contained Breathing Apparatus for Emergency Use (IP Section 03.04) (1 Sample)

- (1) The inspectors evaluated the licensee's use and maintenance of self-contained breathing apparatuses.

71124.08 - Radioactive Solid Waste Processing & Radioactive Material Handling, Storage, & Transportation

Radioactive Material Storage (IP Section 03.01) (3 Samples)

Inspectors evaluated the licensee's performance during walkdowns in controlling, labelling and securing radioactive materials for the following areas:

- (1) Building 3J43 - Radiation Protection Storage building
- (2) Vault storage yard
- (3) Building 2K7 - Warehouse C

Radioactive Waste System Walkdown (IP Section 03.02) (1 Sample)

- (1) Inspectors walked down accessible portions of the solid radioactive waste systems and evaluated system configuration and functionality for the handling/processing of filters and resin.

Waste Characterization and Classification (IP Section 03.03) (2 Samples)

- (1) The inspectors evaluated the licensee's characterization and classification of dry active radioactive waste (DAW) for 2020.
- (2) The inspectors evaluated the licensee's characterization and classification of radioactive waste from the reactor coolant system (RCS) filters for Units 1 and 2 for 2020

Shipment Preparation (IP Section 03.04) (1 Sample)

- (1) The inspectors observed that a shipment containing radioactive material was prepared according to requirements.

Shipment # 2020-58, LSA-II, OREX (1 Container #7873), November 4, 2020

Shipping Records (IP Section 03.05) (3 Samples)

The inspectors evaluated the following non-excepted radioactive material shipments through a record review:

- (1) Shipment # 2018-34, LSA-II, Resin (1 High Integrity Container # 7303), September 17, 2018
- (2) Shipment # 2020-01, LSA-II, Dry Active Waste (2 Containers, # 7861 & 7656), January 16, 2020
- (3) Shipment # 2020-46, LSA-II, Resin (1 High Integrity Container # 7760), August 20, 2020

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

EP01: Drill/Exercise Performance (IP Section 02.12) (2 Samples)

- (1) Unit 1 (October 1, 2019, through September 30, 2020)
- (2) Unit 2 (October 1, 2019, through September 30, 2020)

EP02: ERO Drill Participation (IP Section 02.13) (2 Samples)

- (1) Unit 1 (October 1, 2019, through September 30, 2020)
- (2) Unit 2 (October 1, 2019, through September 30, 2020)

EP03: Alert & Notification System Reliability (IP Section 02.14) (2 Samples)

- (1) Unit 1 (October 1, 2019, through September 30, 2020)
- (2) Unit 2 (October 1, 2019, through September 30, 2020)

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

- (1) Unit 1 (October 1, 2019, through September 30, 2020)
- (2) Unit 2 (October 1, 2019, through September 30, 2020)

MS10: Cooling Water Support Systems (IP Section 02.09) (2 Samples)

- (1) Unit 1 (October 1, 2019, through September 30, 2020)
- (2) Unit 2 (October 1, 2019, through September 30, 2020)

OR01: Occupational Exposure Control Effectiveness Sample (IP Section 02.15) (2 Samples)

- (1) Unit 1 (April 1, 2019, through September 30, 2020)
- (2) Unit 2 (April 1, 2019, through September 30, 2020)

PR01: Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual
Radiological Effluent Occurrences (RETS/ODCM) Radiological Effluent Occurrences Sample
(IP Section 02.16) (2 Samples)

- (1) Unit 1 (April 1, 2019, through September 30, 2020)
- (2) Unit 2 (April 1, 2019, through September 30, 2020)

71152 - Problem Identification and Resolution

Routine Review (IP Section 02.01)

Semiannual Trend Review (IP Section 02.02) (1 Sample)

- (1) The inspectors reviewed the licensee's corrective action program for potential adverse trends in human performance that might be indicative of a more significant safety issue.

Annual Follow-up of Selected Issues (IP Section 02.03) (3 Samples)

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

- (1) Failed local leak rate test on containment penetration 2-MIII-0021, reactor cavity sump and containment sump discharge header isolation valve on April 29, 2020
- (2) Procedural guidance for steam generator level response during shutdown for refuel outage with focus on transition/prerequisites from emergency operating procedure

EOS-0.1A, "Reactor Trip Response," Revision 9 to normal plant procedure IPO-005A, "Plant Cooldown from Hot Standby to Cold Shutdown," Revision 27 on October 10, 2020

- (3) Unit 1 main feedwater pump A failing to trip during reactor shutdown for refueling outage on October 10, 2020

INSPECTION RESULTS

Failure to Critique Weaknesses During a Drill			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Emergency Preparedness	Green NCV 05000445,05000446/2020004-01 Open/Closed	[H.1] - Resources	71114.05
<p>The inspectors identified a Green, non-cited violation of 10 CFR 50.47(b)(14) for the licensee's failure to identify and correct weaknesses in emergency response organization performance during a full-scale drill conducted on October 10, 2018. Specifically, the licensee did not identify performance that would have precluded effective implementation of the emergency plan if it occurred during an actual radiological emergency.</p>			
<p><u>Description:</u> The inspectors reviewed drill reports for a multi-facility drill that took place on October 10, 2018. One of the licensee's semi-annual health physics drills required by the Emergency Plan was conducted in conjunction with the multi-facility drill. The following observations were made:</p> <ul style="list-style-type: none"> • Review of the report "Health Physics, Semi Annual (EP37PA1XY1), October 10, 2018" (dated January 16, 2019) revealed that the evaluator/controller provided the health physics technicians with information on what samples they would take, and what would be the results of those samples. In addition, the evaluator/controller provided the technicians with information about what new radiological postings would need to be posted as a result of the sample results. This occurred because the health physics technicians were not taking any action on their own volition to demonstrate their knowledge, skills and abilities in analyzing the radiological conditions, nor to responding to the results of the analyses. • Review of report "Exercise Report, Red Team – October 10, 2018" (dated January 16, 2019) showed that all performance objectives associated with health physics and emergency worker exposure control were graded as satisfactory. • In the listing of corrective action documentation initiated as part of the drill, documented in the multi-facility drill report, there were no actions initiated to address the intervention with the health physics technicians. There is no evidence it was evaluated in the critique process. <p>The Comanche Peak Nuclear Power Plant Emergency Plan (revision 43) states what the scope of evaluation was intended to include. Specifically, Section 12.2.5 states, in part, that health physics drills "shall...involve response to and analysis of simulated elevated airborne and liquid samples and direct radiation measurements in the environment." Actions to address the scope are to be addressed in the drill's demonstration objectives. In the health physics drill report, the stated objectives involved evaluating the health physics technician's ability to perform analysis of various samples. Objectives to address their ability to respond to the results of these analyses correctly were not included in the licensee's drill documentation.</p> <p>In other related cases, not demonstrating the objectives of a drill based on one's knowledge</p>			

and abilities is basis for unsatisfactory performance. For example, an emergency director that is prompted to provide a correct emergency classification is considered a failure to provide a prompt and accurate emergency action level (NEI 99-02, Revision 7, page 50). The licensee's evaluation criteria was reviewed to see how it addresses such situations. Record 9.1.2, "Emergency Response Organization Drill/Exercise Evaluation Sheet," associated with document TRA-105, "Emergency Preparedness Training," Revision 26, provides such criteria. In its "Overall Evaluation Criteria," Item 3, it states that "any performance which prevents an exercise objective from being met constitutes an overall evaluation of [sic] unsatisfactory." Not taking actions on one's volition towards meeting an objective prevents it from being demonstrated. Document TRA-105, Section 6.4.1, indicates that this evaluation criteria is used for drill/exercise performance evaluation for key ERO personnel. However, when asked by the inspector, licensee EP staff indicated that they had not developed similar evaluation criteria for non-key ERO personnel. Therefore, the licensee evaluator did not have a disposition path via evaluation criteria to document unsatisfactory performance in a consistent manner.

The inspectors concluded that health physics personnel's failure to demonstrate the ability to analyze and respond to changing radiological conditions is performance that would have precluded effective implementation of the emergency plan during a radiological emergency. The inspectors concluded that this constituted a weakness in emergency response organization performance. However, the licensee graded the performance as satisfactory. The licensee's failure to identify the weakness and correct it is a performance deficiency.

Corrective Actions: The licensee entered these issues into the corrective action program.

Corrective Action References: CR-2020-008037

Performance Assessment:

Performance Deficiency: The licensee's failure to correct weaknesses that occurred during an exercise was a performance deficiency which was within the licensee's ability to foresee and correct. A weakness is defined in Section 2.0(o) of Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," (dated September 22, 2015) as emergency response organization performance that would have prevented the effective implementation of the licensee's emergency plan had the circumstances occurred. The ERO's failure to assess changing radiological conditions and to provide a range of protection to emergency workers during the October 10, 2018 drill were weaknesses requiring correction.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the ERO Performance attribute of the Emergency Preparedness cornerstone and adversely affected the cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The licensee's ability to ensure that adequate measures will be taken to protect the health and safety of the public is degraded when weak emergency response organization performance is not corrected.

Significance: The inspectors assessed the significance of the finding using Appendix B, "Emergency Preparedness SDP." Using Manual Chapter 0609, "Significance Determination Process," Attachment 4, Tables 1, 2, and 3 worksheets (effective date October 7, 2016); and the corresponding Appendix B, "Emergency Preparedness Significance Determination

Process, Attachment 2 (issue date September 22, 2015); the performance deficiency was determined have very low safety significance (Green) because it was a failure to comply with NRC requirements, was not a loss of planning standard function, and was not a degraded risk significant planning standard function. The finding was not a loss of planning standard function because the licensee appropriately critiqued some weaknesses associated with risk-significant activities and the 10 CFR 50.47(b) planning standards.

Cross-Cutting Aspect: H.1 - Resources: Leaders ensure that personnel, equipment, procedures, and other resources are available and adequate to support nuclear safety. The finding had a cross-cutting aspect in the area of resources associated with human performance because the licensee failed to ensure procedures and processes for evaluating ERO performance were adequate. Specifically, no evaluation tool was provided to enable the evaluator to document prompted performance during drills and exercises as unsatisfactory. In addition, the demonstration objectives provided for the health physics drill documentation did not encompass the full required scope of performance described in the site's emergency plan. This de-emphasized the need of health physics technicians to demonstrate the ability to respond to results from various samples and did not emphasize to the evaluator that it was an ability that needed to be considered to assign satisfactory or unsatisfactory performance.

Enforcement:

Violation: Title 10 CFR 50.54(q)(2), requires, in part, that a power reactor licensee follow and maintain the effectiveness of an emergency plan which meets the requirements of Appendix E to 10 CFR Part 50 and the standards of 10 CFR 50.47(b). Title 10 CFR 50.47(b)(14) requires, in part, that deficiencies identified as a result of exercises or drills are (will be) corrected.

Contrary to the above, on January 16, 2019, the licensee failed to correct deficiencies identified as a result of exercises or drills. Specifically, the licensee failed to identify emergency response organization performance deficiencies (weaknesses) occurring during the October 10, 2018 full-scale drill and did not ensure correction of the weaknesses. There was no actual or potential safety significance because the weak performance occurred during a drill.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Failure to Correct Weaknesses During Drills and Exercises			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Emergency Preparedness	Green NCV 05000445,05000446/2020004-02 Open/Closed	[P.2] - Evaluation	71114.05
The inspectors identified a Green, non-cited violation of 10 CFR 50.47(b)(14) for the failure to correct a deficiency identified in a 2018 multi-facility drill. Specifically, radiation protection staff did not provide a range of protective actions to emergency workers during a drill conducted October 10, 2018, and this same deficiency (weakness) was repeated during the November 6, 2019 biennial exercise. The inspectors determined that the licensee's corrective actions for the issue were incomplete and did not address the extent of condition.			

Description: During the November 6, 2019, exercise, the Operations Support Center (OSC) radiation protection (RP) staff failed to provide radiological briefings, including documenting radiological conditions on an Emergency Work Permit (EWP), for a Technical Support Center (TSC) engineer and several nuclear equipment operators (NEOs) dispatched to perform emergency work in the field.

The inspectors noted that a similar failure occurred during a multi-facility drill conducted on October 10, 2018, in which RP staff failed to provide radiological briefings for NEOs dispatched to perform emergency work as well. The 2018 issue was identified by the licensee in their critique process and documented in CR-2018-006928. The inspectors reviewed corrective actions following the October 10, 2018 drill. Licensee staff determined that the NEOs were directed to obtain a RP briefing at the radiological controlled area (RCA) access control desk prior to entering the plant, vice from the OSC RP coordinator. The inspectors asked if it was verified that the NEOs did indeed receive an RP briefing on the simulated radiological conditions where they were going. Also, if they did receive a briefing, how did its content compare to what the OSC RP coordinator would have provided in his/her briefing. Based on emergency preparedness staff review, there was no evidence that confirmed that the NEOs had received an RP briefing. As a result of this level of analysis, the only corrective action taken was to coach the drill team's shift manager to coordinate dispatch of NEOs to the field through the OSC in the future. Corrective action for this weakness was completed on January 30, 2019.

The licensee issued their report for the November 6, 2019 biennial exercise on December 15, 2019. As in the 2018 drill, the failure to provide radiological protection briefings was again identified by the licensee in their critique process as a weakness and documented in CR-2019-008800. However, the licensee failed to recognize that their corrective actions from the 2018 drill deficiency had been ineffective. During the licensee's review of the 2019 exercise weakness, there were two opportunities to identify that ineffective corrective action had been implemented in response to the October 10, 2018 drill weakness:

- In the condition report CR-2019-008800 extent of condition review, the window of review for common identified weaknesses was confined to calendar year 2019.
- In another extent of condition review with condition report CR-2019-009542, based on an NRC-identified weakness in the November 6, 2019 exercise, the licensee reviewed another exercise weaknesses during the 2015 biennial exercise (CR-2019-009542; NRC Inspection Report 05000445, 05000446/2015002). This same weakness (failure to provide radiological protection briefings) was exhibited during that 2015 exercise, but licensee staff did not recognize this, missing an opportunity to expand the scope of their review for corrective action adequacy.

Therefore, the inspectors concluded that even though the failure to conduct radiological condition briefings for emergency teams was identified in exercises conducted in 2015, 2018 and 2019 exercises and entered into the corrective action program, the licensee failed to recognize that the 2019 weakness was recurring as a result of ineffective corrective actions after the 2018 weakness.

The inspectors concluded that a lack of appropriate and consistent radiological briefings for plant staff assisting mitigation and repair tasks could preclude the effective implementation of the emergency plan were that performance to occur in an actual radiological emergency, because emergency workers would not be informed about current conditions and consequently could receive excessive radiation exposure. Therefore, the inspectors

concluded that the lack of radiological briefings for plant repair staff was a deficiency (weakness) which the licensee had failed to correct as required.

Corrective Actions: The licensee entered this issue into the corrective action program.

Corrective Action References: CR-2020-008038

Performance Assessment:

Performance Deficiency: The licensee's failure to correct weaknesses that had been previously identified in prior drills or exercises was a performance deficiency which was within the licensee's ability to foresee and correct. A weakness is defined in Section 2.0(o) of Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," (dated September 22, 2015) as emergency response organization performance that would have prevented the effective implementation of the licensee's emergency plan had the circumstances occurred.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the ERO Performance attribute of the Emergency Preparedness cornerstone and adversely affected the cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The licensee's ability to ensure that adequate measures will be taken to protect the health and safety of the public is degraded when weak emergency response organization performance is not corrected.

Significance: The inspectors assessed the significance of the finding using Appendix B, "Emergency Preparedness SDP." Using Manual Chapter 0609, "Significance Determination Process," Attachment 4, Tables 1, 2, and 3 worksheets (effective date October 7, 2016); and the corresponding Appendix B, "Emergency Preparedness Significance Determination Process," Attachment 2 (issue date September 22, 2015); the performance deficiency was determined have very low safety significance (Green) because it was a failure to comply with NRC requirements, was not a loss of planning standard function, and was not a degraded risk significant planning standard function. The finding was not a loss of planning standard function because the licensee appropriately critiqued some weaknesses associated with risk-significant activities and the 10 CFR 50.47(b) planning standards.

Cross-Cutting Aspect: P.2 - Evaluation: The organization thoroughly evaluates issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. The finding had a cross-cutting aspect in the area of evaluation associated with problem identification and resolution because the licensee failed to evaluate the issue to ensure resolutions addressed causes and extent of condition. Specifically, after the October 2018 drill performance, the licensee did not confirm what actions were taken, thus ensuring that causes of the issue were not correctly identified. This resulted in ineffective corrective action delivered to a limited population of the emergency response organization.

Enforcement:

Violation: Title 10 CFR 50.54(q)(2), requires, in part, that a power reactor licensee follow and maintain the effectiveness of an emergency plan which meets the requirements of Appendix E to 10 CFR Part 50 and the standards of 10 CFR 50.47(b). Title 10 CFR 50.47(b)(14) requires, in part, that deficiencies identified as a result of exercises or drills are (will be) corrected.

Contrary to the above, between October 2018 and November 6, 2019, the licensee failed to correct deficiencies in their ERO performance identified as a result of exercises or drills. Specifically, the licensee did not correct failures to provide a range of protective measures to emergency workers by not providing radiological briefings to ERO staff assigned to assist in event mitigation and plant repair activities.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Error Caused Trip of Safety Chiller

Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000446/2020004-03 Open/Closed	[H.12] - Avoid Complacency	71152

On September 14, 2020 a finding and associated non-cited violation was self-revealed when an operator removed a tag on a safety chiller. Specifically, after completing maintenance and declaring the chiller operable and while removing a Test in Progress tag, the operator accidentally repositioned a control power switch which tripped the chiller and rendered it inoperable until it could be recovered.

Description: On September 6, 2020, the licensee entered a planned maintenance outage to replace the compressor on the Unit 2 B safety chiller. During the maintenance outage, the licensee affixed a Test in Progress tag on a control switch for the safety chiller using a wax string directly on the toggle switch. A Test in Progress tag allows for non-operations personnel to reposition the switch when needed for maintenance or testing procedures. The site uses procedure STI-605.01, "Work Control and Clearance Safety Tagging," Revision 6 to establish requirements and guidelines for hanging tags on components. While the procedure requires that tags be hung in a manner that the component on which the tag is hung is clear, the procedure does not provide details on the manner in which the tag is hung. In this instance, the tag was hung directly on a toggle switch by looping a string around the switch and pulling the string taut. This method of hanging the tag is consistent with past site practices and had resulted in unplanned switch repositioning in the past. After the safety chiller had been declared operable, the licensee sent a nuclear equipment operator (NEO) to remove the tag. The NEO reached up to remove the tag and this action led to the switch changing positions, removing control power to the safety chiller and causing an unplanned trip of the chiller.

Subsequent to the trip, the inspectors learned that the site had experienced chiller trips in the past and had covered the potential during the pre-job brief for clearing tags. Despite the history of tripping the chiller, the licensee did not develop an alternative strategy to hanging and removing tags. The inspectors walked down the safety chiller with the system operating procedure to understand steps needed to recover and restore the chiller. The estimated recovery of the chiller would take about ten minutes during which time the chiller would be inoperable and unavailable. The switch is located on the safety chiller control panel and is located just above head height. The location is accessible for switch operation but in an awkward location for tag hanging and removal. Although the switch was repositioned during tag removal, the inspectors noted that the switch could also be repositioned while attempting to read the tag.

The inspectors also noted that the licensee did not remove the tag until after the operations

had restored the safety chiller to an operable status. Although not prohibited by procedure, if the same error occurred while removing tags from the toggle switch before the chiller was declared operable, it would have avoided rendering the chiller inoperable and having to enter into an unplanned technical specification action statement. The inspectors reviewed the licensee's program for human performance codified in STA-429, "Human Performance Program," Revision 6, which establishes responsibilities for managers to mitigate conditions that lead to human error and individuals to take precautions before and during activities. Although, licensee staff was aware of the potential to reposition the switch, precautions were not sufficient to prevent switch repositioning.

Corrective Actions: The licensee took immediate action to restore the chiller after the Nuclear Equipment Operator informed the control room. Operations personnel are developing longer term actions to address the potential to reposition components during the tagging process.

Corrective Action References: The licensee entered the condition into the corrective action program as CR-2020-6686.

Performance Assessment:

Performance Deficiency: The licensee failed to take precautions sufficient to prevent unwanted operation of components while placing or removing tags. Specifically, the NEO repositioned a toggle switch while removing a tag on a safety chiller control power switch, rendering the chiller inoperable. The licensee human performance program, STA-429, establishes a standard to anticipate problems and take precautions prior to performance. However, precautions were not sufficient to preclude rendering the safety chiller inoperable.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Procedure Quality attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors screened the finding in accordance with IMC 0612 appendix B dated December 12, 2019. Specifically, the maintenance planning coupled with procedures were not appropriate to the circumstances in that the use of the tagging procedure led to rendering the safety chiller inoperable.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The inspectors answered no to all the questions in IMC 0609, "The Significance Determination Process (SDP) for Findings At-Power Findings" Appendix A, Exhibit 2, dated December 13, 2019. Therefore, the finding is of very low safety significance, Green.

Cross-Cutting Aspect: H.12 - Avoid Complacency: Individuals recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes. Individuals implement appropriate error reduction tools. For this activity, licensee personnel recognized the potential for inadvertent component re-positioning during pre-job briefs but did not follow up in planning tag removal to preclude unplanned inoperability and unavailability.

Enforcement:

Violation: Technical Specification Section 5.4.1 requires, in part, that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. NRC Regulatory Guide 1.33, Revision 2, Appendix A, Section 9 addresses "Procedures for Performing Maintenance," Section 9.a states that "Maintenance that can affect the performance of safety-related equipment should be properly preplanned and performed in accordance with written procedures, documented instructions, or drawings appropriate to the circumstances."

Contrary to the above, on September 14, 2020, the licensee failed to properly preplan and perform maintenance that could affect safety-related equipment in accordance with written procedures, documented instructions, or drawings appropriate to the circumstances. Specifically, the planning and work instructions for the maintenance were not appropriate to the circumstances in that it failed to contain provisions to either preclude unwanted operation of a component while hanging or removing tags, or else to perform the tag removal at a time where it would not have the potential to affect safety-related chiller operability.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Observation: Human Performance Error Trend

71152

The inspectors reviewed the licensee's corrective action program for potential adverse trends in human performance. The inspectors noted that the licensee had recognized and documented an adverse trend in human performance. Licensee analysis revealed a trend in a lack of proficiency in assigned tasks as well as self-imposed schedule pressure. The inspectors evaluated several of the issues and noted that many of the issues involved turnover of activities between shifts or interactions between onsite organizations. The inspectors concluded that these interfaces represent a source of errors that adversely impact human performance. Examples include:

During replacement of the compressor for the 2-06 safety chiller, night shift personnel closed lube oil filter block valves to inspect the jet oil pump. Day shift personnel did not recognize the valves were closed before starting the system and this resulted in high pressure and additional time to complete the planned work. This was determined to be a minor issue because it involved maintenance in progress.

During the unit 1 refueling outage, OPT-512A "Residual Heat Removal and Safety Injection Subsystem Valve Test" was turned over multiple times. During this procedure, night shift closed the A RHR pump discharge valve per procedure. This section of the procedure was not completed. Dayshift performed other sections of the procedure prior to completion of the partial section. This resulted in running the RHR pump for 20 minutes without establishing a flow path. Subsequent testing of the pump demonstrated the pump had not been damaged. This was determined to be minor because the pump was not damaged and the plant conditions did not require the pump to be operable.

During filter testing of ventilation unit X-13, engineers in the field and operators in the control room failed to communicate effectively. As a result, operators secured the incorrect fan. Since the ventilation systems do not have a safety related function, there was no

consequence to the error and it was determined to be a minor issue.

Following replacement of the 1-02 service water pump, engineering failed to establish new reference values in the surveillance procedure. Although engineering was aware that the pump would probably not test in the acceptable range, operations was not informed. This resulted in running the surveillance test and identifying the pump parameters were in the alert range despite having a new pump installed. Operators quickly recognized the procedure had not been updated with the new reference values and determined the pump remained capable of performing its intended safety function, so this was determined to be a minor issue.

The inspectors evaluated each of the issues and concluded each issue was of minor significance.

EXIT MEETINGS AND DEBRIEFS

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

- On October 1, 2020, the inspectors presented the biennial operator requalification inspection results to Mr. T. McCool, Site Vice President, and other members of the licensee staff.
- On October 29, 2020, the inspectors presented the inservice inspection exit inspection results to Mr. T. McCool, Site Vice President, and other members of the licensee staff.
- On November 5, 2020, the inspectors presented the occupational radiation safety inspection results to Mr. T. McCool, Site Vice President, and other members of the licensee staff.
- On November 5, 2020, the inspectors presented the emergency preparedness program inspection results to Mr. T. McCool, Site Vice President, and other members of the licensee staff.
- On November 5, 2020, the inspectors presented the public radiation safety inspection results to Mr. T. McCool, Site Vice President, and other members of the licensee staff.
- On January 14, 2021, the inspectors presented the integrated inspection results to Mr. T. McCool, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.04	Procedures	SOP-304A-AF-V01	Train A MDAFW Pump Lineup	5
		SOP-815B	Safety Chilled Water System	11
71111.05	Fire Plans	FPI-101A	Unit 1 Safeguards Building Elevation 773'-0" Train "A" and "B" - RHR, SI and CS Pump Rooms	3
	Procedures	FPI-506	Fire Preplan for Electrical and Control Building Control Room Elevation 830'	5
		FPI-508	Fire Preplan for Electrical and Control Building Elevation 854' -4"	4
71111.08P	Corrective Action Documents	CR-YYYY-NNNN	2020-004257, 2020-004949, 2019-004590, 2020-004091, 2020-004826, 2019-004074, 2020-004257, 2019-007476, 2020-001529, 2019-003776, 2020-003669, 2019-006653, 2020-003656, 2019-005653, 2020-003653, 2019-005575, 2020-004812, 2020-003647, 2019-004699	
		TR-YYYY-NNNN	2020-003516, 2019-006596	
	Miscellaneous		Comanche Peak Nuclear Power Plant Unit 1 - Third Interval AS:ME Section XI Inservice Inspection Program Plan	2
	NDE Reports	AF-1-58-0268 -41	Ultrasonic Calibration/Examination	05/08/2019
		TBX- 2-2568-H15	PT - Liquid Penetrant Examination	05/08/2019
		TBX-1-4101-5	Ultrasonic Calibration/Examination	05/09/2019
		TBX-1-4200-14	WesDyne International Reactor Vessel Weld Results Summary Comanche Peak Unit 1 - Reactor Vessel Inlet Nozzle Dissimilar Metal Weld AT 247°	05/22/2019
		TBX-1-4400-1	WesDyne International Reactor Vessel Weld Results Summary Comanche Peak Unit 1 - Reactor Vessel Outlet Nozzle Dissimilar Metal Weld at 22°	05/22/2019
		TBX-2-2201-H31	Magnetic Particle Examination	05/09/2019
		TBX-2-2301-H4	Magnetic Particle Examination	05/09/2019
TBX-2-2568-H28		PT - Liquid Penetrant Examination	05/08/2019	
TBX-I-II00A-20	WesDyne International Reactor Vessel Weld Results Summary Comanche Peak Unit 1 - Reactor Vessel Inlet	05/22/2019		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Nozzle Shell Weld @ 67°	
		TBX-I-II00A-21	WesDyne International Reactor Vessel Weld Results Summary Comanche Peak Unit 1 - Reactor Vessel Inlet Nozzle Shell Weld @ 113°	05/22/2019
		TBX-I-II00A-22	WesDyne International Reactor Vessel Weld Results Summary, Comanche Peak Unit 1 - Outlet Nozzle to Shell Weld @ 158°	05/22/2019
		TBX-I-II00A-23	WesDyne International Reactor Vessel Weld Results Summary Comanche Peak Unit 1 - Outlet Nozzle to Shell Weld @ 202°	05/22/2019
		TX-IS1-301	Ultrasonic Calibration/Examination	05/08/2019
		TX-IS1-302	Ultrasonic Calibration/Examination	05/07/2019
	Procedures	WDI-SSP-1344 (TX-ET-01)	Eddy Current Examination on Coated Ferritic Materials for Comanche Peak Nuclear Power Station	1
		T X-1S1-8	VT-1 and VT-3 Visual Examination Procedure	11
		TX-1S1-7	Magnetic Particle Examination for Comanche Peak Nuclear Power Plant	14
		TX-1S1-8	VT-1 and VT-3 Visual Examination Procedure	11
		TX-ISI-70	Magnetic Particle Examination for Comanche Peak Nuclear Power Plant	14
		WDI-SSP-044	Manual Ultrasonic Examination of Pins, Studs and Bolts For Comanche Peak Nuclear Power Station	2
	Work Orders		5948291	
	71111.11A	Miscellaneous	Weeks 1 thru 7	2019 NRC Annual Operating Tests
71111.11B	Corrective Action Documents	TR-2020-002225	Unit 1 Plant Computer Project not Completed	09/30/2020
		TR-2020-0282	Unit 1 Plant Computer CSF tree displays are incorrect	09/30/2020
	Miscellaneous	2018-2020 Sim Web Report	Simulator to Plant Mods Summary Report (10 items)	08/31/2020
		2020 NRC Exam Overlap Tool	2020 NRC Operating Test Overlap Tool	09/08/2020
		Open Sim Work Report 083120	Simulator Open DR Report Summary	08/31/2020

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		SAPT-005	Simulator Annual Core Performance Test (Load T.0032)	08/29/2019
		Sim DR Report Summary 083120	Simulator Discrepancy Report Summary 2018-2020	08/31/2020
		Weeks 5 and 6	2020 Annual NRC Operating Tests	09/28/2020
	Procedures	ODA-315	Licensed Operator Maintenance Tracking	Revision 8
		SOMI-09	Simulator Configuration Management	Revision 11
		STA-121	Licensed Operator Physicals and License Application Process	Revision 5
		TRA-204	Licensed Operator Regualification Training	Revision 19
		TRA-206 (Exam Security)	Operations Department Examination Control and Implementation	Revision 2
		TRA-207	Simulator Configuration Management (Quality-Related)	1
	Self-Assessments	TR-2019-003113	Training Program Self-Assessment for 2019	12/18/2019
71111.12	Corrective Action Documents	CR-YYYY-NNNN	2019-009368, 2020-001935, 2020-002056, 2020-002152, 2020-002881, 2020-00406, 2020-004716, 2020-005204, 2020-005560, 2020-007119, 2020-009124, 2020-009171;	
		TR-YYYY-NNNN	2020-005279, 2020-007000	
	Engineering Changes	FDA-2020-000100-01	CP1-SWAPSW-02M replacement motor one time deviation for minimum bend radius	10/23/2020
	Miscellaneous	TR-YYYY-NNNN	2020-007895	10/23/2020
	Procedures	INC-2318	Functional Test Westinghouse 7300 Series Cabinet Power Supply	3
		NQA 3.09-11.03	RECEIVING INSPECTION	18
	Work Orders		3975253	
71111.15	Corrective Action Documents	CR-YYYY-NNNN	2020-008929, 2020-007470, 2020-007768, 2020-7199, 2020-8343, IR-2020-007199	
71111.18	Engineering Changes	59SC-2017-000117-01-00	Modification to Upgrade to Redundant 7300 NCD and NDT Cards on u1 and U2 that are Identified as Single Point Vulnerability (SPV) and Significant Power Reduction Items.	0
		FDA-2017-000117-01	Upgrade to Redundant Westinghouse NTD and NCD Cards which are Identified as Single Point Vulnerabilities and Significant Power Reductions Items.	0 and 1
		FDA-2020-	While returning RVLIS to service during 1RF21, sensors	00

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		000104-01	1-TE-3613A-3 was found grounded and need to be removed from service.	
	Engineering Evaluations	59SC-2020-000104-01-00	50.50 Screen for FDA-2020-000104-01-00	11/02/2020
71111.19	Corrective Action Documents	TR-YYYY-NNNN	2020-8191	
	Drawings	CP 22	Diesel Generator Engine Start Stop Pneumatic Control Schematic	
	Procedures	INC-2085	Rework and Replacement of I&C Equipment	4 and 7
	Work Orders		5566057, 5922019, 5948430, 5948865, 5966522, 5883913	
71111.20	Miscellaneous	SORC 20-009	Site Operations Review Committee Review Package	11/02/2020
		SORC 20-009	Site Operations Review Committee review package for Unit Start Up	11/02/2020
	Procedures	IPO-010A	Reactor Coolant System reduced Inventory Operations	20
71111.22	Procedures	OPT-805B	Appendix J Leak Rate Test of Penetration 2-MV-0010	2
		OPT-850B	Appendix J Leak Rate Test of Penetration 2-MV-0010	2
	Work Orders		5738336, 5828037, 5828041, 5928127, 5945630, 5979966 5979970	
		WO 503896	Calculate Total Containment Leak Rate Per STA-743	05/09/2020
71114.02	Miscellaneous		Comanche Peak Nuclear Power Plant, Alert and Notification System Design Report	2
	Procedures	SG-012	Staff Guideline 012, Alert and Notification System Surveillance	26, 27, 28, 29
71114.03	Miscellaneous		Quarterly Augmentation Verification Results, 4th Quarter	12/07/2018
			Quarterly Augmentation Verification Results, 1st Quarter	03/26/2019
			Quarterly Augmentation Verification Results, 2nd Quarter	06/25/2019
			Quarterly Augmentation Verification Results, 3rd Quarter	07/18/2019
			Quarterly Augmentation Verification Results, 4th Quarter	10/23/2019
			Quarterly Augmentation Verification Results, 1st Quarter	03/09/2020
			Quarterly Augmentation Verification Results, 2nd Quarter	07/07/2020
	Procedures	EPP-204	Activation and Operation of the Technical Support Center (TSC)	17
		SG-005	Staff Guideline 005, Quarterly Augmentation Verification of	17

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			the Emergency Response Organization (ERO)	
71114.04	Miscellaneous	EV-TR-2018-005896-5	Remove Letter of Agreement References from Comanche Peak Emergency Plan Appendix H	08/18/2020
		EV-TR-2019-002081-3	Replacement of Unit 2 Plant Computer System (PCS)	11/1/2019
		EV-TR-2019-002081-4	Changes to Emergency Action Levels (EALs)	12/10/2019
		EV-TR-2019-002081-6	Replacement of Unit 1 Plant Computer System (PCS)	1/9/2020
		EV-TR-2020-000756-8	Revision to EPP-304, "Protective Action Recommendations"	06/03/2020
		EV-TR-2020-00756-12	EPP-202 Revision	08/12/2020
		EV-TR-2020-00756-3	EPP-204 and EPP-205 Revisions	04/16/2020
	Procedures	EPP-123	10 CFR 50.54(q) Screening and Evaluation of Changes to Emergency Plan Documentation	2
71114.05	Corrective Action Documents	CR-YYYY-NNNN	2018-006928, 2018-007411, 2018-008058, 2018-008104, 2018-008140, 2019-005327, 2019-006056, 2019-006082, 2019-006123, 2019-006459, 2019-006472, 2019-006622, 2019-007133, 2019-007855, 2019-008036, 2019-008692, 2019-008751, 2019-008800, 2019-009368, 2019-009542, 2020-000147, 2020-001282, 2020-001368, 2020-001423, 2020-002049, 2020-002222, 2020-002302, 2020-002385, 2020-002881, 2020-003230, 2020-004614, 2020-004671, 2020-004858, 2020-004888, 2020-004905, 2020-004960, 2020-005074, 2020-005549, 2020-006317, 2020-007154	
		TR-YYYY-NNNN	2019-007854, 2019-008692, 2020-000044, 2020-001041	
	Miscellaneous		Comanche Peak Nuclear Power Plant Media Guide	09/01/2019
			Comanche Peak Nuclear Power Plant, Emergency Response Organization, Exercise Report, Blue Team - February, 19, 2020	04/30/2020
		Comanche Peak Nuclear Power Plant, Emergency Response Organization, Exercise Report, Green Team -	09/08/2020	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			June 24, 2020	
			Comanche Peak Nuclear Power Plant After Action Report/Improvement Plan, Drill Date - September 25, 2019; Radiological Emergency Preparedness (REP) Program	11/04/2019
			Comanche Peak Nuclear Power Plant, Emergency Response Organization, Exercise Report, Green Team - January 29, 2019	10/10/2019
			Comanche Peak Nuclear Power Plant, Emergency Response Organization, Exercise Report, Gold Team - June 26, 2019	10/10/2019
			Comanche Peak Nuclear Power Plant, Emergency Response Organization, Exercise Report, Blue Team - July 17, 2019	10/10/2019
			Comanche Peak Nuclear Power Plant, Emergency Response Organization, Exercise Report, Red Team - October 2, 2019	11/01/2019
			Comanche Peak Nuclear Power Plant, Emergency Response Organization, Exercise Report, Red Team - November 6, 2019	12/15/2019
			Health Physics Drill, Semi Annual (EP37PA1XY1), July 17, 2019	09/21/2019
			Health Physics Drill, Semi Annual (EP37PA1XY1), November 6, 2019	12/10/2019
			Comanche Peak Nuclear Power Plant, Emergency Response Organization, Exercise Report, Red Team - October 10, 2018	01/16/2019
			Offsite Radiological Drill Report (EP37ORSRJ1), July 29, 2020 - August 27, 2020	10/05/2020
		CP-201800892	RE: 2018 Annual Review of CPNPP Evacuation Time Estimate	12/18/2018
		CP-201900744	Subject: 2019 Annual Review of CPNPP Evacuation Time Estimate	12/18/2019
		Evaluation Number: EVAL-	CPNPP Nuclear Oversight Audit Report	11/05/2019

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		2019-001		
	Procedures	EPP-100	Maintaining Emergency Preparedness	11
		EPP-109	Duties and Responsibilities of the Emergency Coordinator/Recovery Manager	15
		EPP-116	Emergency Repair & Damage Control and Immediate Entries	9
		EPP-201	Emergency Action Level Technical Bases Document	1
		EPP-304	Protective Action Recommendations	22
		STA-211	Industrial Safety Program	15
		STA-421	Control of Issue Reports	21
		STA-422	Corrective Action Program	34
		STI-421.02	Issue Report Reviews	1
		STI-433.01	Maintaining Equipment Important to Emergency Response	6
TRA-105	Emergency Preparedness Training	26		
71124.03	Corrective Action Documents	TR-YYYY-NNNN	2019-004969, 2019-006551, 2019-009178	
	Drawings		Control Room Ventilation Big Book	07/18/2011
		M1-0304	Ventilation Control Room Air Conditioning	
		M1-0304B	Ventilation Control Room Air Conditioning, Sheet B	
		M1-0308	Flow Diagram - Ventilation Control Room Air Conditioning	
		M1-0308A	Flow Diagram - Ventilation Control Room Air Conditioning, Sheet A	
	Miscellaneous		Breathing Air Quality Report	10/13/2020
			2019- Respirator Protection Equipment Inspection Record	
			May, June, September - Respirator Protection Equipment Monthly Inspection Record	
	Procedures	RPI-914	Airline Breathing Systems	10
		RPI-922	Use and Maintenance of Portable HEPA Filter Ventilation Units	8
		SAF-104	Inspection of Respirator Protection Equipment	12
		SAF-106	Testing of Breathing Air Systems	4
		SAF-107	Operation and Maintenance of the Portacount Fit-Test System	14

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		STI-211.06	Use of Respiratory Protection	2
	Work Orders		5505160, 5651677, 5656639, 5677686	
71124.08	Corrective Action Documents	CR-YYYY-NNNN	2018-004989, 2019-000813, 2019-001164, 2019-008113	
		TR-YYYY-NNNN	2018-003612, 2018-004219, 2019-000145, 2019-001511, 2019-006753, 2019-008277, 2019-008666, 2020-008104	
	Miscellaneous		Part 37 Security Plan for the Protection of Category 1 and Category 2 Quantities of Radioactive Material	12/31/2016
			Transportation Security Plan and Risk Assessment Verification	02/19/2014
			Summary List of Shipments: 2018, 2019, and 2020	2020
		2020-01	U1 Reactor Coolant System Filter Sample and Analysis	03/31/2020
		2020-02	U2 Reactor Coolant System Filter Sample and Analysis	03/31/2020
		2020-10	DAW Waste Stream Sample and Analysis	10/15/2020
		5773735	2019 Sealed Source Leak Testing	12/18/2019
		5843319	2020 Sealed Source Leak Testing	06/17/2020
		CP-201900270	2018 Annual Radioactive Effluent Release Report	04/25/2019
		CP-202000291	2019 Annual Radioactive Effluent Release Report	04/22/2020
	Operability Evaluations	STA-709	Radioactive Waste Management Program	10
	Procedures	RPI-204	Radioactive Waste Handling	15
		RPI-212	Radioactive Source Control	13
		RPI-230	Radioactive Material Shipments	9
		RPI-240	Radioactive Waste Shipments	11
		RPI-242	Radioactive Waste Characterization and Classification	10
		RPI-243	Packaging Radioactive Waste for Shipment	9
		RPI-700	Sealed Source Leak Testing	13
		SEC-200	Safety-Security Interface Review and Evaluation	2
		STA-652	Radioactive Material Control	22
		STA-652	Radioactive Material Control	22
STA-713		Process Control Program (PCP)	3	
STA-919		CNPP Safety-Security Interface Requirements	0	
Radiation Surveys	M-20200917-8	Vault Storage Area	09/17/2020	
	M-20201018-26	Warehouse C	10/18/2020	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		M-20201022-42	RCA Yard	10/22/2020
		M-20201026-27	RCA Yard Access and Storage Building	10/26/2020
	Self-Assessments	EVAl-2019-007	Nuclear Oversight Audit Report: Radioactive Waste Program	11/21/2019
		TR-2019-007602	Self-Assessment: Part 37 Category 1 and Category 2 Material ISFSI Security Requirements	12/02/2019
	Shipping Records	2018-34	LSA-II, Resin (1 High Integrity Container # 7303)	09/17/2018
		2020-01	LSA-II, Dry Active Waste (2 Containers # 7861 & # 7656)	01/16/2020
		2020-46	LSA-II, Resin, (1 High Integrity Container # 7760)	08/20/2020
		2020-58	LSA-II, Dry Active Waste (1 Containers # 7873)	11/04/2020
71151	Corrective Action Documents	CR-YYYY-NNNN	2019-008113	
		TR-YYYY-NNNN	2019-004500, 2019-007674, 2019-007901, 2019-007902, 2019-008073, 2019-008161, 2020-002290, 2020-003490, 2020-004608	
	Miscellaneous		Comanche Peak Nuclear Power Plant Emergency Preparedness, 2020 Quarterly ERO Tabletop	06/02/2020
		LO44.BBS.012	ECCS Operations, Simulator Exercise Guide	11/11/2019
		R&R-PN-112	Reactor Oversight Program MSPI Basis Document Comanche Peak Nuclear Power Plant	13
71152	Corrective Action Documents	CR-YYYY-NNNN	2020-006677, 2020-6366, 2020-7917	
		TR-YYYY-NNNN	2002-8365, 2020-008126, 2020-5993, 2020-6542, 2020-8084, 2020-8408	
	Procedures	STI-605.01	Work Control and Clearance Safety Tagging	6