

COMANCHE PEAK NUCLEAR POWER PLANT

Steven K. Sewell Vice President Nuclear Site Vistra Operations Company LLC P.O. Box 1002 6322 North FM 56 Glen Rose, TX 76043 Office: 254.897.6113

CP-202400458 TXX-24081 January 16, 2025

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-0001 Ref 10CFR50.73

Subject: Comanche Peak Nuclear Power Plant (CPNPP) Docket No. 50-446 Turbine Driven Auxiliary Feedwater Pump Unavailable Following Transition from Mode 4 to Mode 3 Licensee Event Report 2-24-002-00

Dear Sir or Madam:

Attached is Licensee Event Report (LER) 2-24-002-00, "Turbine Driven Auxiliary Feedwater Pump Unavailable Following Transition from Mode 4 to Mode 3" for Comanche Peak Nuclear Power Plant (CPNPP) Unit 2.

This communication contains no new commitments regarding CPNPP Units 1 or 2.

Should you have any questions, please contact Kassie Mandrell at (254) 897-6987 or Kassie.Mandrell@vistracorp.com.

Sincerely,

Steven & Sewel Steven Sewell (Jan 15, 2025 11:18 CST)

Steven K. Sewell

Attachment: NRC Form 366 - LER 2-24-002-00 (4 pages)

c(email) - John Monninger, Region IV [John.Monninger@nrc.gov] Dennis Galvin, NRR [Dennis.Galvin@nrc.gov] John Ellegood, Senior Resident Inspector, CPNPP [John.Ellegood@nrc.gov] Henry Strittmatter, Resident Inspector, CPNPP [Henry.Strittmatter@nrc.gov]

| NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION | | | | | | APPRO | APPROVED BY OMB: NO. 3150-0104 EXPIRES: 04/30/2027 | | | | | | | | | | | |
|---|---------------|---------|-------------|--|----------------------------|--|--|------------------------------|-----------------------------|-----------------------------|---------------|-------------|------------------------|-------------------|---------------------|------------------|--|--|
| (04-02-2024) LICENSEE EVENT REPORT (LER) (See Page 2 for required number of digits/characters for each block) (See NUREG-1022, R.3 for instruction and guidance for completing this form http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/) | | | | | | Estimated learned an estimate to Commissio at: OMB (Commissio not require displays a | Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Library, and Information Collections Branch (T-6 A10M), U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by email to Infocollects.Resource@nrc.gov, and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0104), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street NW, Washington, DC 20503. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number. | | | | | | | | | | | |
| 1. Facility Name | | | | | | | | 050 | 2. Do | 2. Docket Number 3. Page | | | | | | | | |
| Comanche Peak Nuclear Power Plant Unit 2 | | | | | | | 052 | 446 1 | | | | | 4 | | | | | |
| 4. Title | | | | | | | | | | | | | | | | | | |
| Turbine Driven Auxiliary Feedwater Pump Unavailable Following Transit | | | | | | | nsition fr | sition from Mode 4 to Mode 3 | | | | | | | | | | |
| 5. Eve | nt Date | | | 6. LER Number | | 7. | Repor | rt Daf | te | | | 8. Other Fa | cilities Inv | Involved | | | | |
| Month Da | ay Ye | 'ear | Year | Sequential Number | Revision No. | Month | Day | у | Year | Facility Nan | ne | | | 050 Docket Number | | | | |
| 11 1 | 7 20 |)24 | 24 | - 002 - | 00 | 01 | 16 | 3 | 2025 | Facility Nan | ne | | 052 | | | Number | | |
| 9. Operating M | ode | | Мос | de 4 | | | | 10. P | 'ower Leve | I | | 0% | | | | | | |
| 11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: (Check all that apply) | | | | | | | | | | | | | | | | | | |
| 10 CFR | Part 20 | | 20.22 | 203(a)(2)(vi) | 10 CFR Part 50 | | | 50.73 | 50.73(a)(2)(ii)(A) 50.73(a) | | | (2)(viii)(A | (viii)(A) 73.1200(a) | | | | | |
| 20.2201 | (b) | | 20.22 | 203(a)(3)(i) | 50.36(c)(1)(i)(A) | | | 50.73 | 50.73(a)(2)(ii)(B) 50.73(a) | | | | 2)(viii)(B) 73.1200(b) | | | | | |
| 20.2201 | (d) | | 20.22 | 203(a)(3)(ii) | 50 | 50.36(c)(1)(ii)(A) 50.73(a)(2 | | | (a)(2)(iii) | | 50.73(a) | (2)(ix)(A) | | 73.1200(c) | | | | |
| 20.2203 | l(a)(1) | | 20.22 | 203(a)(4) | 50 | .36(c)(2) | | | 50.73 | (a)(2)(iv)(| A) | 50.73(a) | (2)(x) | 73.1200(d) | | | | |
| 20.2203 | (a)(2)(i) | | 10 CFI | R Part 21 | 50.46(a)(3)(ii) | | | | 50.73 | 50.73(a)(2)(v)(A) 10 CFR | | | Part 73 | art 73 73.1200(e) | | | | |
| 20.2203 | l(a)(2)(ii) | | 21.2(| .c) | 50 |).69(g) | | | 50.73 | (a)(2)(v)(E | 3) | 73.77(a) | (1) | | 73.1 | 200(f) | | |
| 20.2203(a)(2)(iii) | | | | 50.73(a)(2)(i)(A) 50.73(a)(2)(v)(C) 73.77(a)(2)(i) | | | | (2)(i) | | 73.1 | 200(g) | | | | | | | |
| 20.2203(a)(2)(iv) | | | | | √ 50.73(a)(2)(i)(B) | | | 50.73 | 50.73(a)(2)(v)(D) 73.77(a)(| | | | | 73.1 | 200(h) | | | |
| 20.2203 | 3(a)(2)(v) | | | | 50 | i0.73(a)(2)(i)(C) 50.73(a)(2)(vii) | | | | | | | | | | | | |
| OTHER | (Specify I | here, i | in abstract | t, or NRC 366A |). | | | | | | | | | | | | | |
| | | | | | 12 | 2. Licensee | Cont | tact f | for this LE | ĒR | | | | | | | | |
| Licensee Conta Kassie Mar | ict 1drell | | | | | | | | | | | | Phone Nu 2 | mber (254-8 | Include a 97-698 | area code) 37 | | |
| | | | | 13. Complete (| One Line | for each C | ompo | onen | t Failure [| Described | l in thi | is Report | | | | | | |
| Cause | Syster | ŧm | Compon | ient Manufact | turer Reportable to IRIS | | lis | | Cause | Syste | tem Component | | Manufacture | | Report | able to IRIS | | |
| А | BA | | Р | WEC | 2 | Y | | | | | | | | | | | | |
| | | 14. | Suppleme | ental Report Expr | ected | | | | 15 5 | dE Eveneted Pubminster Pate | | | | | Day | Year | | |
| No Yes (If yes, complete 15. Expected Submission Date) | | | | | 13. L | xpected 5 | upms | | 02 | | 13 | 2025 | | | | | | |
| 16. Abstract (Limit to 1326 spaces, i.e., approximately 13 single-spaced typewritten lines) On November 18, 2024, at 0830, the 2-01 turbine driven auxiliary feedwater (TDAFW) pump was found in an inoperable condition following a change from Mode 4 to Mode 3 that occured on 11/17/2024 at 1633. Operations personnel identified that the TDAFW remained uncoupled following maintenance during a Unit 2 refueling outage. Auxiliary feedwater (AFW) is required by Technical Specification (TS) Limiting Condition for Operability (LCO) 3.7.5 to be | | | | | | | | | | | | | | | | | | |

operable in Modes 1, 2 and 3 with no exception allowed by TS LCO 3.0.4 for mode changes when applicable conditions are not met. The TDAFW was returned to service on November 18, 2024 at 2051.

The cause analysis of this event is ongoing. Preliminary causes involve inaccurate communication of system status and unclear work instruction. Results of the completed analysis and associated corrective actions will be provided in a supplemental report.

| NRC FORM 366A U.S. NUCLEAR REGULATORY COMM | IISSION | APPROVED BY OMB: NO. | 3150-01 | 04 | EXPIRES | 3: 0 | 4/30/2027 | |
|---|---|--|--|--|--|---|---|--|
| (04-02-2024) LICENSEE EVENT REPORT (LEI CONTINUATION SHEET (See NUREG-1022, R.3 for instruction and guidance for completing th http://www.prc.gov/rogding.mc/dog.gol/optime/www.gc/totf/gr1022/ | Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Library, and Information Collections Branch (T-6 A10M), U. S Nuclear Regulatory Commission, Washington, DC 20555-0001, or by email to Infocollects.Resource@nrc.gov, and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0104), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street NW Washington, DC 20503. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection. | | | | | | | |
| http://www.mc.gov/reading-m/doc-collections/httregs/stail/sirozz/ | displays a currently valid OMB control n | umber. | | | | | | |
| 1. FACILITY NAME | 050 | 2. DOCKET NUMBER | | | 3. LER NUMBER | <u> </u> | | |
| | 050 | | YEAR | , | | | REV | |
| Comanche Peak Nuclear Power Plant Unit 2 | 052 | 446 | 24 | - | 002 | - | 00 | |
| NARRATIVE | | | | | | <u> </u> | | |
| I. DESCRIPTION OF REPORTABLE EVENT A. REPORTABLE EVENT CLASSIFICATION This event is reportable under 10CFR50.73(a)(2)(i)(B). (4 to Mode 3 as it applies to LCO 3.7.5, for AFW operabilit B. PLANT CONDITION PRIOR TO EVENT Comanche Peak Nuclear Power Plant (CPNPP) Unit 2 w C. STATUS OF STRUCTURES, SYSTEMS, OR COMPO EVENT AND CONTRIBUTED TO THE EVENT There were no structures, systems, or components that w D. NARRATIVE SUMMARY OF THE EVENT, INCLUDIN During a Unit 2 refueling outage in October 2024, Comar turbine driven auxiliary feedwater (TDAFW) pump [EIIS:(the TDAFW pump in an uncoupled condition. The cleara | CPNPP ity. /as in M ONENT were in NG DAT nche P (BA)(P) ance ta | P did not meet LCO 3.0.4 MODE 4 during end of ou TS THAT WERE INOPER operable prior to the eve TES AND APPROXIMAT eak (CPNPP) performed]. Following the planned sk was inadvertently mar | during tage sa RABLE / nt whick E TIME schedu mainte | a m fety AT S lled nar | ode change f system resto THE START o ontributed to to maintenance nce, the work ork complete" | iron orati OF e of gro una | n Mode ion. THE event. the bup left der the | |
| orders were then transferred from a Mode 3 restricted condition for post work testing (PWT). On 11/17/2024, at 1633, CPNPP Unit 2 entered Mode 3. identified by an Equipment Operator and was immediated clearance to re-couple the pump and a 72-hour Limiting Condition B for one auxiliary feedwater (AFW) [EIIS:(BA)] associated clearance was released. The required post wo operable status on 11/18/2024 at 2051. E. THE METHOD OF DISCOVERY OF EACH COMPON ERROR A Plant Equipment Operator discovered the uncounled not status on 11/18/2024 at 2051. | The fo ly repo Conditi I train in vork tes VENT C | ollowing day at 0830, the rted to the Outage Contro on of Operability (LCO) v noperable. The pump wa sting was completed and OR SYSTEM FAILURE, C | uncoup ol Cente vas ent as then the AF | a M oled er. erec W s OCE | I condition wa Operations in d for LCO 3.7 coupled and t system returne | ted is iitiat .5 he ed t SO | ted a | |
| in the Outage Control Center. | | | | | | y 1VI | unayol | |

| NRC FORM 366A U.S. NUCLEAR REGULATORY COMMISSION | APPROVED BY OMB: NO. | . 3150-010 | 4 | EXPIRES | : 04 | 1/30/2027 | | | | |
|---|---|---|-------------------------|---|---------------------|-----------|--|--|--|--|
| (04-02-2024) LICENSEE EVENT REPORT (LER) CONTINUATION SHEET (See NUREG-1022, R.3 for instruction and guidance for completing this form http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/) | Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Library, and Information Collections Branch (T-6 A10M), U. S Nuclear Regulatory Commission, Washington, DC 20555-0001, or by email to Infocollects.Resource@nrc.gov, and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0104), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street NW Washington, DC 20503. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number. | | | | | | | | | |
| 1. FACILITY NAME | 2. DOCKET NUMBER | | 3 | . LER NUMBER | | | | | | |
| Comanche Peak Nuclear Power Plant Unit 2 | 446 | YEAR 24 | SEQUENTIAL NUMBER | | _ [| NO. | | | | |
| | | | | | | | | | | |
| II. COMPONENT OR SYSTEM FAILURES A. CAUSE OF EACH COMPONENT OR SYSTEM FAILURE The 2-01 turbine driven auxiliary feedwater pump was left unco rendered the TDAFW inoperable while operating in Mode 3. Pr system status and unclear work instruction. Results of the com provided in a supplemental report. B. FAILURE MODE, MECHANISM, AND EFFECTS OF EACH Human performance errors and process weaknesses led to the | upled following system m reliminary causes involve pleted analysis and asso FAILED COMPONENT | naintenar inaccura ciated co TDAFW | nce. ate c prrect | This condit ommunicati tive actions | ion on o will | of be | | | | |
| C. SYSTEMS OR SECONDARY FUNCTIONS THAT WERE AFFECTED BY FAILURE OF COMPONENTS WITH MULTIPLE FUNCTIONS This event did not involve any additional systems or secondary functions which were affected by the TDAFW inoperability. | | | | | | | | | | |
| The auxiliary feedwater system is comprised of two electric motor-driven auxiliary feedwater (MDAFW) pumps and associated valves, piping, and controls and a third turbine-driven auxiliary feedwater pump with associated valves, piping, and controls, which is independent of the electrical power supply to the motor-driven pumps. Three pumps are necessary to ensure an adequate supply of auxiliary feedwater following an accident, coincident with the single failure of a pump. Each motor driven pump provides 100% of AFW flow capacity, and the turbine driven pump provides 200% of the required capacity to the steam generators, as assumed in the accident analysis. The turbine driven AFW pump supplies a common header capable of feeding all steam generators with normally open, DC powered, air operated control valves. One pump at full flow is sufficient to remove decay heat and cool the unit to residual heat removal (RHR) entry conditions. The AFW System actuates automatically on steam generator water level - low-low level. The system also actuates on loss of offsite power and on an Anticipated Transient without Scram (ATWS) Mitigation System Actuation Circuitry (AMSAC) signal; however, AMSAC start of the AFW pumps is not required for AFW system operability. The motor driven pumps also start on safety injection and trip of all MFW pumps. During low power plant operations, the AFW system, under manual control, is used to maintain SG water level. | | | | | | | | | | |
| III. ANALYSIS OF THE EVENT A. SAFETY SYSTEM RESPONSES THAT OCCURRED No safety system responses occurred due to this event. B. DURATION OF SAFETY SYSTEM TRAIN INOPERABILITY CPNPP entered Mode 3 on 11/17/2024 at 1633. The auxiliary feedwater system was later declared operable on | | | | | | | | | | |
| 11/18/2024 at 2051. Total duration of inoperable condition, whi than the 72 hour completion time for LCO 3.7.5 condition B. | le in Mode 3, was approx | imately 2 | 29 hc | ours. This is | s les | 35 | | | | |

| NRC FORM 366A U.S. NUCLEAR REGULATORY COMMISSION | APPROVED BY OMB: NO. | . 3150-010 | 4 | EXPIRE | S: 0 | 4/30/2027 | | |
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| (04-02-2024) LICENSEE EVENT REPORT (LER) CONTINUATION SHEET (See NUREG-1022, R.3 for instruction and guidance for completing this form http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/) | Estimated burden per response to comply with this mandatory collection request: 80 hours. Reporter lessons learned are incorporated into the licensing process and fed back to industry. Send comment regarding burden estimate to the FOIA, Library, and Information Collections Branch (T-6 A10M), U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by email to Infocollects.Resource@nrc.gov, and the OMB reviewer at: OMB Office of Information and Regulator Affairs, (3150-0104), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street NV Washington, DC 20503. The NRC may not conduct or sponsor, and a person is not required the respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number. | | | | | | | |
| 1. FACILITY NAME 050 | 2. DOCKET NUMBER | VEAR | | 3. LER NUMBER | 2 | REV | | |
| Comanche Peak Nuclear Power Plant Unit 2 | 446 | 24 | - | NUMBER 002 | - | NO. 00 | | |
| NARRATIVE | | | | | | | | |
| C. SAFETY CONSEQUENCES AND IMPLICATIONS OF THE The AFW System automatically supplies feedwater to the stean Coolant System upon the loss of normal feedwater supply. The steam driven pump configured into three trains. Each motor dri turbine driven pump provides 200% of the required capacity to t Both MDAFW pumps were operable when mode 3 was entered in the accident analysis. Therefore, no safety system functional This event had no impact on nuclear safety, reactor safety, radii public. These events have been evaluated as not meeting the d 50.73(a)(2)(v). The TDAFW pump was returned to operable sta time of 72 hours. IV. CAUSE OF THE EVENT | EVENT n generators to remove of AFW system is composive ven pump provides 100% the steam generators, as and the TDAFW pump i I failure existed during th ological safety, environm lefinition of a safety syste tus in less time than the | lecay he ed of two of AFV assume s the ass e period pental sa em functi LCO 3.7 | at f o m V flo ed i sun of fety ion | from the Rea notor driven a ow capacity, n the accider ned single ac inoperability. y or the safet al failure per condition B, c | ctor and and at an tive y of 10 (com | one the nalysis. failure the CFR pletion | | |
| Preliminary causes involve inaccurate communication of system completed analysis and associated corrective actions will be provide a system completed analysis and associated corrective actions will be provide a system completed analysis and associated corrective actions will be provide a system completed analysis and associated corrective actions will be provided analysis and associated corrective actions with a stable actions with the provided analysis and associated corrective actions with a stable actions with a | n status and unclear word ovided in a supplemental n status and unclear word ovided in a supplemental | k instruct I report. k instruct I report. | tior | n. Results of t n. Results of t | the | | | |
| VI. PREVIOUS SIMILAR EVENTS There have been no recent similar events or conditions related | to mode changes with in | operable | 9 60 | quipment at C | PN | PP. | | |