



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

June 7, 2021

Mr. John Dent, Jr., Vice President
and Chief Nuclear Officer
Nebraska Public Power District
Cooper Nuclear Station
72676 648A Avenue
P.O. Box 98
Brownville, NE 68321

SUBJECT: COOPER NUCLEAR STATION – DESIGN BASIS ASSURANCE INSPECTION
(TEAMS) INSPECTION REPORT 05000298/2021010

Dear Mr. Dent:

On April 23, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Cooper Nuclear Station. On May 6, 2021, the NRC inspectors discussed the results of this inspection with you and other members of your staff. The results of this inspection are documented in the enclosed report.

One finding of very low safety significance (Green) is documented in this report. This finding involved a violation of NRC requirements. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violation or the significance or severity of the violation 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 Cooper Nuclear Station.

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,

David Proulx, Acting Chief
Engineering Branch 1
Division of Reactor Safety

Docket No. 05000298
License No. DPR-46

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

COOPER NUCLEAR STATION – DESIGN BASIS ASSURANCE INSPECTION (TEAMS)
INSPECTION REPORT 05000298/2021010 – DATED JUNE 7, 2021

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ADAMS ACCESSION NUMBER: ML21140A206

☒ SUNSI Review ADAMS: ☐ Non-Publicly Available ☒ Non-Sensitive Keyword:
By: wcs ☒ Yes ☐ No ☒ Publicly Available ☐ Sensitive NRC-002

| | | | | | |
|-----------|-------------|-------------|------------|------------|-------------|
| OFFICE | SRI:DRS/EB1 | RI:DRS/EB1 | RI:DRS/EB1 | RI:DRS/EB2 | RI:DRS/IPAT |
| NAME | WSifre | DReinert | FThomas | NOkonkwo | LFlores |
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| DATE | 5/20/2021 | 05/21/2021 | 5/20/2021 | 5/20/2021 | 5/24/21 |
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| SIGNATURE | JWK | DLP | | | |
| DATE | 05/24/2021 | 06/07/2021 | | | |

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number: 05000298

License Number: DPR-46

Report Number: 05000298/2021010

Enterprise Identifier: I-2021-010-0021

Licensee: Nebraska Public Power District

Facility: Cooper Nuclear Station

Location: Brownville, NE

Inspection Dates: March 08, 2021 to April 23, 2021

Inspectors: L. Flores, Senior Reactor Inspector
N. Okonkwo, Reactor Inspector
D. Reinert, Reactor Inspector
W. Sifre, Senior Reactor Inspector
F. Thomas, Reactor Inspector

Approved By: David Proulx, Acting Chief
Engineering Branch 1
Division of Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a design basis assurance inspection (teams) inspection at Cooper Nuclear Station, 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

| Preconditioning of 4160 Vac Circuit Breaker for As-Found Tests | | | |
|---|---|----------------------|----------------|
| Cornerstone | Significance | Cross-Cutting Aspect | Report Section |
| Mitigating Systems | Green NCV 05000298/2021010-01 Open/Closed | None (NPP) | 71111.21M |
| The team identified a Green non-cited violation of Title 10 of the <i>Code of Federal Regulations</i> (10 CFR) 50, Appendix B, Criterion XI, "Test Control," involving the licensee's failure to establish a test program which demonstrates that components will perform satisfactorily in service. Specifically, the licensee failed to record "as-found" test values prior to performing maintenance for safety related 4160 Vac magne blast circuit breakers. | | | |

Additional Tracking Items

None.

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.

REACTOR SAFETY

71111.21M - Design Bases Assurance Inspection (Teams)

The inspectors evaluated the following components and listed applicable attributes, permanent modifications, and operating experience:

Design Review - Risk-Significant/Low Design Margin Components (IP Section 02.02) (5 Samples)

- (1) HPCI Steam Supply to Turbine Valve HPCI-MOV-MO14
 - Valve Testing Procedures and performance history to assure consistency with vendor and industry recommendations.
 - Component maintenance history and corrective action reports to verify the monitoring of potential degradation.
 - Design basis documents and calculations including maximum expected differential pressure, minimum required stem thrust, limiting component analysis to verify valve and actuator functionality is within acceptable limits.
 - Change equivalent document 6017820, HPCI-MOV-MO14 valve replacement, including changes in valve opening times to verify within design basis.
 - Vendor specifications for replacement valve and valve and actuator drawings.
- (2) 125V DC Charger 1B:
 - Battery short circuit calculations, sizing calculations, coordination studies, voltage drop calculations, and switchgear maintenance activities were appropriate for the design of the system.
 - Design basis documents
 - Current system health reports
 - Selected drawings
 - Vendor manual and installation specifications.
 - Condition Reports associated with the 125V DC 1B Charger.
 - Component maintenance history and corrective action program reports.
 - Preventive maintenance, inspection, and testing procedures for Class 1E 125 VDC System components.

- (3) 125 Volts Direct Current (VDC) Bus 1B:
- Battery short circuit calculations, sizing calculations, coordination studies, voltage drop calculations, and switchgear maintenance activities were appropriate for the design of the system.
 - Input and output operating voltage characteristics to verify the 125V DC Bus 1B and downstream components can perform their design function through all input voltage ranges.
 - Design basis documents
 - Current system health reports
 - Selected drawings
 - Vendor manual and installation specifications
 - Condition Reports associated with the 125V DC 1B Bus
 - Component maintenance history and corrective action program reports.
 - Preventive maintenance, inspection, and testing procedures for Class 1E 125V DC System components.
- (4) 4160 Switchgear G & Load Center G (4160V)
- System health reports, component maintenance history, and corrective action program reports to verify the monitoring and correction of potential degradation.
 - Calculations for electrical distribution, system load flow/voltage drop, short-circuit, and electrical protection to verify that bus capacity and voltages remained within the minimum acceptable limits.
 - The protective device settings and feeder circuit breaker ratings to ensure adequate selective protection coordination of connected equipment during worst-case short circuit conditions.
 - Procedures for preventive maintenance, inspection, and testing to compare maintenance practices against industry and vendor guidance; including the cable aging management program.
 - Results of completed preventative maintenance on switchgear and breakers, including breaker tracking.
 - Switchgear loading study during normal plant operation and Design Basis Accident (DBA) load conditions.
- (5) Transformer G (4160/480V)
- System health reports, component maintenance history, and corrective action program reports to verify the monitoring and correction of potential degradation.
 - Calculations for transformer sizing and loading to ensure capacity, transformer cabling, and protection to verify that transformer nameplate capacity and voltages remained within minimum acceptable limits.
 - The protective device settings and circuit breaker ratings to ensure adequate selective protection coordination of connected equipment during worst-case short circuit conditions.
 - Procedures for preventive maintenance, inspection, and testing to compare maintenance practices against industry and vendor guidance.
 - Results of completed preventative maintenance on the transformer to ensure data acceptability are within tolerance.

- Seismic qualification reports for the transformer to ensure SSC will respond to seismic event.
- Vendor document and data for the transformer to ensure design and operations requirement.

Design Review - Large Early Release Frequency (LERFs) (IP Section 02.02) (1 Sample)

- (1) RHR Heat Exchanger Service Water Discharge Valve SW-MOV-89B
 - Valve testing procedures and performance history were reviewed to assure consistency with vendor and industry recommendations.
 - Component maintenance history and corrective action program reports to verify the monitoring of potential degradation.
 - Design basis calculations including the maximum expected differential pressure, minimum required stem thrust, limiting component analysis to verify that the valve and actuator functional capability remained within acceptable limits.
 - Valve and actuator drawings and vendor specifications.
 - Setpoints and instrument calibration procedures for the valve and associated instrumentation.

Modification Review - Permanent Mods (IP Section 02.03) (6 Samples)

- (1) Design Equivalent Change 5223334, Replacement of the CRD A Pump
- (2) Change Evaluation Document 6030460, Reactor Recirculation Pump Impeller Replacements
- (3) Engineering Change 4899459, 1200Amp, 4160Volt Vacuum Bottle Circuit Breaker Replacement
- (4) Design Equivalent Change 6040920, Emergency Station Service Transformer (ESST) Bus Replacement.
- (5) Change Evaluation Document 6016581, Diesel Generator Voltage Regulator Upgrade
- (6) Design Evaluation Change 5248627 - High Pressure Core Injection REL-K45 Relay Replacement

Review of Operating Experience Issues (IP Section 02.06) (3 Samples)

- (1) OE LO-2018-0047, In Vessel Visual Inspections (IWI) at several BWRs have discovered instances of degradation on feedwater sparger end brackets.
- (2) OE - LO 2018-0047-004, GE-SC-18-05 - R0 - GGN Power Supply DA343A1281P002 Derating Depends on Baseplate Temperature.
- (3) OE - LO-2020-0047-018, IRIS# 468726 - Torus T-quencher damage due to prolonged SRV leak

INSPECTION RESULTS

| Preconditioning of 4160 Vac Circuit Breaker for As-Found Tests | | | |
|---|---|----------------------|----------------|
| Cornerstone | Significance | Cross-Cutting Aspect | Report Section |
| Mitigating Systems | Green NCV 05000298/2021010-01 Open/Closed | None (NPP) | 71111.21M |
| <p>The team identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion XI, "Test Control," involving the licensee's failure to establish a test program which demonstrates that components will perform satisfactorily in service. Specifically, the licensee failed to record "as-found" test values prior to performing maintenance for safety related 4160 Vac magne blast circuit breakers.</p> <p><u>Description:</u> The team reviewed preventive maintenance procedures for 4160 Vac magne blast circuit breakers and several work orders that performed the preventive maintenance. During the review, the team identified that "Maintenance Procedure 7.3.17.1 4160 Breaker Examination", Revision 30 used to perform inspection of GE Magne Blast Circuit Breakers, directed maintenance personnel to cycle breaker 20 times, clean, adjust, and manipulate the physical condition of 4160 Vac circuit breaker contacts, insulators, and other critical circuit breaker components before performing an "as-found" test to determine if the circuit breakers would have performed their intended design function.</p> <p>For example, "Maintenance Procedure 7.3.17.1 4160 Breaker Examination", section 3.34.2 directs the maintenance to check resistance of normally closed (NC) contacts for control relay. "Record AS FOUND NC values on Attachment 1, Table 2." In addition, section 3.36.2 directs the maintenance personnel to check resistance of each main contact and record the value on Attachment 1, Table 3. Prior to performing these steps, the procedure had directed maintenance personnel to cycle the breaker 20 times in step 3.20.8.8, cleaned primary disconnect fingers, movable and stationary primary contacts, and secondary disconnects with approved solvent in step 3.21, manipulated and lubricated the main and arcing contacts in steps 3.23 thru 3.28. The cycling, cleaning, lubrication and manipulations of the breaker were completed before any "as-found" tests and reading are performed in steps 3.34.2 and 3.36.2, to verify the operability of the critical components of the circuit breaker, such as main contact resistance, main contact and control relay contact resistance.</p> <p>The team reviewed the data sheets resulting from the February 7, 2013, and August 21, 2019, tests and preventative maintenance performed on 4160 Vac circuit breaker 4160G 1GS, under work order 4846461 & 5167080, respectively, using Procedure 7.3.17.1. Those results show that maintenance personnel documented the same results for "as-found" and "as-left" for multiple tested parameters. Therefore, the team determined that the procedure could mask existing conditions such as unacceptable contact resistance, setpoint drift, and mechanical binding. Additionally, the procedure resulted in the inability to verify past operability of circuit breaker 4160G 1GS.</p> <p>Corrective Actions: The licensee reviewed test results to validate operability. The licensee is also reviewing the associated procedures to update the testing process.</p> <p>Corrective Action References: CR-CNS- 2021-02009</p> <p><u>Performance Assessment:</u></p> | | | |

Performance Deficiency: The failure to establish a test program which ensures that test and maintenance procedures associated with safety-related 4160 Vac circuit breakers would perform satisfactorily in service was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, the failure to perform “as-found” tests prior to performing maintenance in preventive maintenance procedures was a significant programmatic deficiency which could cause unacceptable conditions to go undetected.

Significance: The inspectors assessed the significance of the finding using Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” Using Exhibit 2, “Mitigating Systems Screening Questions,” issued November 30, 2020, the inspectors determined this finding is not a deficiency affecting the design or qualification of a mitigating structure, system, or component; the finding does not represent a loss of function of a Technical Specification train, system, or two separate Technical Specification systems for greater than their Technical Specification allowed outage time; the finding does not represent a loss of system and/or function for greater than 24 hours; and the finding does not represent an actual loss of function of one or more non-Technical Specification trains of equipment designated as risk-significant in accordance with the licensee’s maintenance rule program. Therefore, the inspectors determined the finding was of very low safety significance (Green).

Cross-Cutting Aspect: Not Present Performance. No cross cutting aspect was assigned to this finding because the inspectors determined the finding did not reflect present licensee performance.

Enforcement:

Violation: Title 10 CFR 50, Appendix B, Criterion XI, “Test Control,” requires, in part, “A test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents.”

Contrary to the above, the licensee failed to establish a test program that assured that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service was identified and performed in accordance with written test procedures which incorporated the requirements and acceptance limits contained in applicable design documents. Specifically, prior to April 5, 2021, the licensee’s preventive Maintenance Procedure 7.3.17.1, “4160 Breaker Examination,” failed to assure that the 4160 Vac circuit breakers would perform satisfactorily in service when the licensee performed maintenance prior to completing “as-found” tests to verify past operability of the circuit breakers.

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

EXIT MEETINGS AND DEBRIEFS

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

- On May 6, 2021, the inspectors presented the design basis assurance inspection (teams) inspection results to John Dent, Jr. and other members of the licensee staff.

DOCUMENTS REVIEWED

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
|----------------------|--------------|--------------|---|------------------|
| 71111.21M | Calculations | 91-255 | Review of Advent LCA Calculation 96007TR-16, Rev. 2 for SW-MOV-89A and SW-MOV-89B | 8 |
| | | NEDC 00-003 | CNS AUX. Power System Load Flow and Voltage Analysis | 10 |
| | | NEDC 00-110 | MOV Program Valve Margin Determination | 14 |
| | | NEDC 00-111 | CNS Auxiliary Power System AC Loads | 3C6 |
| | | NEDC 13-040 | CRD Supply to RR Pump "A" Pipe Stress Analysis | 1 |
| | | NEDC 13-041 | Owner Accepted Review of Zachary Calc 13-239 "CRD Supply to RR Pump "B" Pipe Stress Analysis | 0 |
| | | NEDC 86-105C | CNS DC Short Circuit Study | 5 |
| | | NEDC 86-105D | CNS Critical DC Bus Coordination Study | 9 |
| | | NEDC 87-131D | 125 VDC Division II Load and Voltage Study | 15 |
| | | NEDC 87-221 | 125 Volt Battery Racks and Battery Charger Mounting Calculations | 01/17/2017 |
| | | NEDC 89-149 | Class IIN Main Steam Piping Analysis Problem MS-02 | 8C2 |
| | | NEDC 90-028 | Review of Seismic Qualification of GE Relay Panels in Aux. [Auxiliary] Relay Room | 06/26/2014 |
| | | NEDC 91-078 | System Level Design Basis Review of HPCI Program MOVs | 4 |
| | | NEDC 91-088C | Review of ADVRNT Calc 96007TR-3 Rev. 3; Limiting Component Analysis for HPCI-MOV-MO14 | 8 |
| | | NEDC 91-176 | Review of EGS Calculation 0955-3.2.1, "DC System High Voltage" | 2 |
| | | NEDC 91-185 | MOV Thermal Overload Heater Sizing | 6 |
| | | NEDC 92-024 | Reactor Water Level 2 (Low-Low) Set Point Calculation for NBI-LIS-72A, B, C, D (Sw. 3 & 4) | 4 |
| | | NEDC 92-050D | Reactor Low Pressure, Injection Valve Permissive Setpoint Calculation for NBI-PIS-52B (S2) and NBI-PIS-52D (S2) | 5 |
| | | NEDC 93-184 | RHR Heat Exchangers Thermal Performance and Tube Plugging Margin | 3 |
| | | NEDC 95-003 | Determination of Allowable Operating Parameters for CNS MOV Program MOVs | 36 |
| | | NEDC 95-003 | Determination of Allowable Operating Parameters for CNS | 36 |

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
|----------------------|---|--------------------|--|------------------|
| | | | MOV Program MOVs | |
| | | NEDC 96-018 | Design Specification for Valve Limiting Component Analysis | 1 |
| | | NEDC 96-018 | Design Specification for Valve Limiting Component Analysis | 1 |
| | | NEDC 96-039 | DC Powered Motor Operated Valve Stroke Time and Capability Calculation | 3C1 |
| | Corrective Action Documents | | 2015-05401, 2014-06711, 2016-04225, 2017-03656, 2014-04547, 2018-06339, 2018-06417, 2005-00675, 2005-00674, 2005-00676, 2005-00678, 2005-00680, 2005-00703, 2009-07839, 2013-00847, 2019-04407, 2013-00850, 2004-07938, 2017-05129, 2021-01893, 2016-00778, 2021-01973, 2020-03279, 2020-03340, 2021-00046, 2016-01478, 2016-05162, 2016-07365, 2017-01350, 2017-01759, 2017-02399, 2017-04580, 2018-00048, 2018-00864, 2018-02055, 2018-05717, 2018-06096, 2019-00455, 2019-02395, 2019-04865, 2019-06563, 2021-00636, 2021-01258, 2018-01248, 2018-02135, 2012-06426, 2013-00116, 2013-00117, 2014-06968, 2020-01667, 2018-07107, 2014-07965, 2015-00772, 2015-03279, 2015-03353, 2015-03370, 2015-03949, 2016-02566, 2016-07276, 2016-07380, 2016-07395, 2017-03567, 2019-01773, 2016-07388, 2016-06128, 2016-07387 | |
| | Corrective Action Documents Resulting from Inspection | | 2021-01762, 2021-01785, 2021-01269, 2021-02002, 2021-02013, 2021-01930, 2021-01964, 2021-02008, 2021-02009, 2021-02010 | |
| | Drawings | 0168R0288 | HDO Metal Clad Switchgear | 6 |
| | | 0223R0558, Sh. 18G | Power and Control Circuit line up 03 Unit 6 1GB – Bus 1 | AG/18 |
| | | 0133C8689 | Horizontal Draw out M/C Swgr, Device & Harness Identification | 5 |
| | | 2036 | Isometric Key Service Water Reactor Building | 42 |
| | | 2851-4 | Service Water - Reactor Building | N18 |
| | | 3002, sh. 1 | Auxiliary One Line Diagram, MCC Z, Swgr Bus 1A, 1B, IE and Critical Swgr. Bus 1F 1G | AM/60 |
| | | 3012 | Main Three Line Diagram, Sheet #3 | AH/27 |

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
|----------------------|---------------------|------------------|---|------------------|
| | | 3058 | DC One Line Diagram | 10/15/2016 |
| | | 444125599 | Anchorage modification for Auxiliary Relay room Panels 9-30, 9-32, 9-33, 9-39, 9-41, 9-42, 9-45 (MP-96-083B) | NO1 |
| | | 444125599 | Anchorage Modifications for Auxiliary Relay Room Panels 9-30, 9-32, 9-33, 9-39, 9-41, 9-42, and 9-45 (MP 96-0838) | 06/24/1997 |
| | | 450005685 | Recirculation Pump P&ID | 4 |
| | | 451213802 | 480 VOLT Critical Switchgear Bus "1 G" Anchorage | AB/01 |
| | | 452006490 | Engineered Safeguard Subsystem Relay Cabinet Panel 9-33 | 01/07/2020 |
| | | 452006639 | RCIC Relay Cabinet | AC/04 |
| | | 454003886 (3912) | Main Three Line Diagram Sheet #3 | AH/27 |
| | | 454006581 | Elementary Diagram RCIC System | 10/14/20 |
| | | 5759-D001, sh. 1 | 5kV 2000A 3P 3W BUS Replacement Layout | 6 |
| | | 5759-D001, sh. 2 | 5kV 2000A 3P 3W BUS Replacement Layout | 6 |
| | | 5759-D060, sh. 1 | 2000A BUS Support Assembly Detail | 4 |
| | | 5759-D061, sh. 1 | 2000A BUS Support Assembly Detail | 6 |
| | | 5759-D070, sh. 1 | 5kV 2000A 3P 3W Special Assembly | 5 |
| | | 5759-D071, sh. 1 | 5kV 2000A 3P 3W Special Assembly | 3 |
| | | 5759-D998, sh. 1 | Heater Assembly | 6 |
| | | 5759-D999, sh. 1 | 5KV 2000A 3P 3W Heater Schematic Details | 7 |
| | | CNS-EE-208 | DB-50 Modifications Details | N00 |
| | | CNS-EE-209 | DB-25 Modification Details | N00 |
| | | CNS-EE-329 | Connection Wiring Diagram Panel EE-M-BUSHEA | 0 |
| | Engineering Changes | CED 6016581 | DG [Diesel Generator] Voltage Regulator Upgrade | 08/18/2020 |
| | | CED 6017820 | HPCI MOV-14 Valve Replacement | 0 |
| | | CED 6030460 | Reactor Recirculation Pump Impeller Replacements | 0 |
| | | DC 6040760 | HPCI-PS-106 Setpoint Correction | 0 |
| | | DC 90-181 | Modification of DC Westinghouse DB Breakers | 03/25/1991 |
| | | DEC-5169220 | Changes to SW-P {MM 2112205) During Repair, | 0 |

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
|----------------------|-------------------------|-------------------------|---|------------------|
| | | | Refurbishment and Reverse Engineering Via PO 4500203150 | |
| | | DEC-5223334 | Replacement of CRD-P-A | 0 |
| | | DEC-5248627 | HPCI-REL-K45 Replacement | 0 |
| | | DEC-6040920 | Emergency Station Service Transformer (ESST) Bus Replacement | 0 |
| | | EC 4899459 | 1200A, 4160V Vacuum Bottle Circuit Breaker Replacement | 0 |
| | | ECR-11360575.EC-5183056 | Reverse Engineering of Top Shaft for SW-P | 0 |
| | Engineering Evaluations | 12-057 | Implementation of JOG Valve Factors at CNS | 1 |
| | | EC Q-11539060 | Evaluation if the Safety Classification of HPCI-MO14 Gland | 0 |
| | | EE 12-057 | Engineering Evaluation, Implementation of JOG Valve Factors at CNS | 1 |
| | | NUC2020135 | Cooper Nuclear Station Refueling Outage RE 31 October 2020 Reactor Torus Desludging, IWE/IWF Examination, Coating Inspection and Coating Repair | 01/06/2021 |
| | Miscellaneous | 1025286 | Seismic Walkdown Guidance For Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic | 05/2012 |
| | | 2014-022 | USAR Change Request for HPCI MOV14 Stroke Time | 0 |
| | | 21A1064AL | GE Purchase Specification for Cooper Recirculation Pumps | 3 |
| | | EE-Swgr.-4160F0 | OScreening Evaluation Worksheet (SEWS) for 4160 Swgr. F Seismic evaluation | 0 |
| | | GE-NE-L12-00867-07-01 | Cooper Nuclear Station MIG Project Task Report | 1 |
| | | GEK-9688 | Cooper Operation and Maintenance Instructions High Pressure Coolant Injection System | 09/1986 |
| | | IEEE Std C37.23 | IEEE Standard for Metal-Enclosed Bus | 9/11/2003 |
| | | LO 2018-0047-003 | Written Evaluation for GEH-SIL-658 - Feedwater Sparger End Bracket Degradation. | 07/05/2018 |
| | | LO 2018-0047-004 | Written Evaluation for GE-SC-18-05 - R0 - GGN Power Supply DA343A1281P002 Derating Depends on Baseplate Temperature.. | 09/26/2018 |

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
|----------------------|------------|-----------------|---|------------------|
| | | MI-182 | Maintenance & Installation Manual, Crane Nuclear Vendor Manual | 0 |
| | | NQ 8508 | Refurbishment/Repair: ASSY.28in. 28KXL 1 Stage Type VCT-Pump Consists of Bowl Assembly, Bottom Column, Lower Column, Intermediate Column, Top Column and Discharge Head | 04/23/2018 |
| | | TR-109641 | EPRI Guidance on Routine Preventive Maintenance for Magne-Blast Circuit Breakers Supplement to NP-7410-V2P2 | 10/1998 |
| | | TR-112814 | EPRI Reduced Control Voltage Testing of Breakers | 7/1999 |
| | | VM-0009 | CNS Vendor Manual Byron Jackson Pump Division Reactor Recirculating Pumps | 25 |
| | | VM-0230 | Vendor manual 480 VOLT Unit Substation, Switchgear & Low Voltage Circuit Breakers | 25 |
| | | VM-0230 | Cooper Nuclear Station Vendor Manual, Westinghouse Electric Corp, 480 Volt Unit Substation, Switchgear & Low Voltage Circuit Breakers | 25 |
| | | VM-0233 | Vendor Manual for GE 4160V Metal Clad Switchgear | 7/26/2019 |
| | | VM-1026 | Cooper Nuclear Station, Vendor Manual, Nutherm International, Inc., Nutherm DC Motor Starters | 12 |
| | | VM-1750 | Cooper Nuclear Station Vendor Manual, General Electric, GE Relay Composite Manual | 17 |
| | Procedures | 3.9 | ASME OM Code Testing of Pumps and Valves | 32 |
| | | 0 CNS OE 100 | Regulatory Affairs & Compliance - Performance | 9 |
| | | 0-CNS-LI-108-01 | 10CFR21 Evaluation and Reporting | 1 |
| | | 0-PWG-01 | Procedure Writer's guide | 23 |
| | | 0.31 | Equipment Status Control | 89 |
| | | 0.5 OPS | Operations Review of Condition Reports/Operability Determination | 65 |
| | | 14.24.1 | HIGH PRESSURE COOLANT INJECTION SYSTEM INSTRUMENT CALIBRATION | 20 |
| | | 14.28.1 | Service Water System Instrument Calibration | 57 |

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
|----------------------|------|----------------|---|------------------|
| | | 14.34.1 | Reactor Equipment Cooling System Instrument Calibration | 23 |
| | | 2.1.11.2 | Reactor Building Data | 75 |
| | | 2.1.12 | Control Room Data | 140 |
| | | 2.2.18.1 | System Operating Procedure 4160V Auxiliary Power Distribution System | 3 |
| | | 2.2.18.2 | System Operating Procedure, 4160V Breaker Operations | 7 |
| | | 2.2.18.3. DIV2 | System Operating Procedure 4160V DIV 2 Distribution Support. | 7 |
| | | 2.2.18.4 | System Operating Procedure 4160V Distribution Abnormal Power | 4 |
| | | 2.2.18.4 | System Operating Procedure 4160V Distribution Abnormal Power | 4 |
| | | 2.2.68 | Reactor Recirculation System | 83 |
| | | 2.2.68.1 | Reactor Recirculation Systems Operations | 80 |
| | | 2.2.69.3 | RHR Suppression Pool Cooling and Containment Spray | 52 |
| | | 2.2.70 | RHR Service Water Booster Pump System | 95 |
| | | 2.2.90A | 12.5 KV System Component Checklist | 89 |
| | | 2.2.90A | 12.5 KV System Component Checklist | 87 |
| | | 2.2A.RR.DIV1 | Reactor Recirculation System Component Checklist (Div 1) | 8 |
| | | 2.2A.RR.DIV2 | Reactor Recirculation System Component Checklist (Div 2) | 5 |
| | | 2.3 9-4-3 | Alarm Procedure 2.3 9-4-3 | 28 |
| | | 3-EN-DC-115 | Engineering Change Process | 15C15 |
| | | 3-EN-DC-203 | Maintenance Rule Program | 4C0 |
| | | 3-EN-DC-204 | Maintenance Rule Scope and Basis | 4C0 |
| | | 3.33 | Motor Operated Valve Program | 27 |
| | | 6.2SW.101 | SERVICE WATER SURVEILLANCE OPERATION (DIV 2) (IST) | 53 |
| | | 6.2SWBP.101 | RHR Service Water Booster Pump Flow Test and Valve Operability Test (Div 2) | 33 |
| | | 6.HPCI.103 | HPCI IST and 92 Day Test Mode Surveillance Operation | 52 |
| | | 6.HPCI.201 | HPCI Valve Operability Test (IST) | 31 |
| | | 6.HPCI.313 | HPCI Beginning of Cycle Test | 38 |
| | | 6.MISC.401 | Position Indicator Inservice Testing | 21 |

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
|----------------------|------|-------------|---|------------------|
| | | 6.SWBP.201 | SW-MO-89A/B Full Stroke Operability (IST) | 7 |
| | | 7.0.5 | CNS Post-Maintenance Testing | 59 |
| | | 7.2.5.1 | Reactor Recirculation Pump Seal Cartridge Removal and Installation | 24 |
| | | 7.3.17 | 4160V BREAKER MAINTENANCE | 25 |
| | | 7.3.17 | 4160V BREAKER MAINTENANCE | 26 |
| | | 7.3.17 | 4160V Breaker Maintenance | 25 |
| | | 7.3.17 | 4160V Breaker Maintenance | 26 |
| | | 7.3.17.1 | 4160 Breaker Examination | 13 |
| | | 7.3.17.1 | 4160 Breaker Examination | 14 |
| | | 7.3.17.1 | Maintenance Procedure, 4160 Breaker Examination | 30 |
| | | 7.3.17.1 | 4160 BREAKER EXAMINATION | 13 |
| | | 7.3.17.1 | 4160 BREAKER EXAMINATION | 14 |
| | | 7.3.17.4 | 4160V Vacuum Bottle Breaker Maintenance | 7 |
| | | 7.3.2.2 | Westinghouse DB-25 Breakers Testing and Maintenance | 10 |
| | | 7.3.20.1 | Reactor Recirculation Pump Motor and MG Set Insulation Testing | 17 |
| | | 7.3.20.3 | Motor Analysis | 20 |
| | | 7.3.40 | Inspection and Meggering of 4160 Volt Buses | 30 |
| | | 7.3.40.1 | Maintenance Procedure Inspection and Meggering of 480 Volt Buses | 3 |
| | | 7.3.41 | Examination, Repair, and High Pot Testing of Non-Segregated Buses and Associated Equipment. | 17 |
| | | 7.3.44 | Transformer Turns Ration Testing | 3 |
| | | 7.3.50.3 | SW 89A/B Minimum Flow Adjustment | 12 |
| | | 7.5.16 | HPCI-MO-14 Dynamic Test | 12 |
| | | 7.5.3 | MOV Diagnostics | 13 |
| | | 7.7.3.1 | General Welding Standards for ASME and ANSI Code Applications | 7 |
| | | EN-OP-104 | Operability Determination Process | 16 |
| | | IP-ENG-001 | Standard Design Process | 1 |
| | | N/A | CNS Vessel Internals Program | 20.9 |
| | | o-EN-WM-107 | Post-Maintenance Testing | 06/21/2017 |

| Inspection Procedure | Type | Designation | Description or Title | Revision or Date |
|----------------------|-------------|-------------|--|------------------|
| | | SP 14-001 | Reactor Recirculation Pump Motor Uncoupled Operation | 06/20/2018 |
| | Work Orders | | 4744415, 4744498, 4748510, 4748513, 4748688, 4753046, 4762192, 4801684, 4801687, 4819708, 4819715, 4849331, 4910881, 4910944, 4916903, 4941728, 4943635, 4944401, 5012044, 5012045, 5012848, 5029171, 5029388, 5050159, 5066017, 5066080, 5145274, 5155539, 5166045, 5167942, 5172357, 5172377, 5193722, 5207435, 5207438, 5207594, 5239148, 5248626, 5242316, 5278402, 5285077, 5285646, 5291652, 5182630, 5122010, 5337256, 5057949, 5090650, 5049906, 5201058, 5285304, 5284540, 5211045, 5211550, 5270579, 5284566, 5242443, 5211639, 5269841, 5210723, 5155031, 5062935, 5084375, 5062936, 5053598, 5089601, 4709109, 4821940, 4821941, 4840958, 4840959, 4952148, 5062934, 4821799, 4840957, 5041265, 5218034, 5178903, 5218035, 5292501, 5039797, 5167081, 5172315, 5169417, 5302551, 5210306, 5207503, 5281974, 5283020, 5302550, 4362745, 4949062, 5167080, 4846461 | |