UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

July 28, 2022

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 – INTEGRATED INSPECTION REPORT 05000298/2022002

Dear Mr. Dent:

On June 30, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Cooper Nuclear Station. On July 18, 2022, the NRC inspectors discussed the results of this inspection with Mr. K. Dia, General Manager of Plant Operations, and other members of your staff. The results of this inspection are documented in the enclosed report.

One Severity Level IV violation without an associated finding is documented in this report. We are treating this violation as a non-cited violation (NCV) consistent with section 2.3.2 of the Enforcement Policy.

No NRC-identified or self-revealing findings were identified during this inspection.

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,

Signed by Josey, Jeffrey
on 07/28/22

Jeffrey E. Josey, Chief
Projects Branch C
Division of Operating Reactor Safety

Docket No. 05000298
License No. DPR-46

Enclosure:
As stated

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COOPER NUCLEAR STATION – INTEGRATED INSPECTION REPORT 05000298/2022002 – DATE- JULY 28,2022

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Non-Public Designation Category: MD 3.4 Non-Public _____ (A.3 - A.7 or B.1)
ADAMS ACCESSION NUMBER: **ML22207A043**

X SUNSI Review		X Non-Sensitive ☐ Sensitive		X Publicly Available ☐ Non-Publicly Available	
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DATE	7/26/2022	7/26/2022	7/28/2022		

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number:	05000298
License Number:	DPR-46
Report Number:	05000298/2022002
Enterprise Identifier:	I-2022-002-0010
Licensee:	Nebraska Public Power District
Facility:	Cooper Nuclear Station
Location:	Brownville, NE
Inspection Dates:	April 1 to June 30, 2022
Inspectors:	K. Chambliss, Resident Inspector D. Dodson, Senior Reactor Inspector M. Doyle, Acting Senior Resident Inspector H. Freeman, Senior Project Engineer S. Hedger, Senior Emergency Preparedness Inspector C. Henderson, Senior Resident Inspector W. Sifre, Senior Reactor Inspector M. Stafford, Acting Senior Resident Inspector H. Strittmatter, Emergency Preparedness Inspector W. Tejada, Physical Security Inspector F. Thomas, Reactor Inspector
Approved By:	Jeffrey E. Josey, Chief Projects Branch C Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated 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

Safety Relief Valve Lift Settings Outside of Technical Specifications Required Setpoints			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000298/2022002-01 Open/Closed	Not Applicable	71153
A self-revealed, Severity Level IV non-cited violation of Technical Specification 3.4.3, "Safety/Relief Valves and Safety Valves," was identified when the licensee discovered through as-found test results that two of the eight Target Rock safety relief valve pilot assemblies failed to lift within the technical specifications lift setpoint requirements.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000298/2021-002-00	Valve Test Failures Result in Condition Prohibited by Technical Specifications	71153	Closed

PLANT STATUS

Cooper Nuclear Station began the inspection period at rated thermal power. On April 29, 2022, power was lowered to approximately 60 percent for core management. The plant was returned to rated thermal power on May 3, 2022. On May 21, 2022, power was lowered to approximately 70 percent for core management. The plant was returned to rated thermal power on May 24, 2022. On June 3, 2022, power was lowered to approximately 85 percent for core management. The plant was returned to rated thermal power on June 4, 2022. On June 17, 2022, power was lowered to approximately 70 percent for core management. The plant was returned to rated thermal power on June 20, 2022. On June 24, 2022, power was lowered to approximately 70 percent for core management. The plant was returned to rated thermal power on June 25, 2022. The unit remained at rated thermal power for the remainder of 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 performed activities described in IMC 2515, Appendix D, "Plant Status," observed risk significant activities, and completed on-site portions of IPs. 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

71111.01 - Adverse Weather Protection

Seasonal Extreme Weather Sample (IP Section 03.01) (1 Sample)

(1) The inspectors evaluated readiness for seasonal extreme weather conditions prior to the onset of seasonal high temperatures for the following systems:
- service water
- emergency diesel generators
- reactor building heating, ventilation, and air conditioning
- control room air conditioning

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 on April 28, 2022.

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) division 1 emergency diesel generator on April 14, 2022
(2) division 1 residual heat removal on April 29, 2022
(3) standby gas treatment A on April 29, 2022
(4) core spray train A on June 17, 2022

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

(1) The inspectors evaluated system configurations during a complete walkdown of the division 2 residual heat removal service water system on June 21, 2022.

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (5 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) reactor building northeast quadrant, 881-foot 9-inch and 859-foot 9-inch elevations, on April 12, 2022
(2) reactor building standby liquid control area, 976-foot elevation, on April 28, 2022
(3) flex support building 1, 903-foot 6-inch elevation, on May 13, 2022
(4) reactor building general area, 903-foot 6-inch elevation, on May 24, 2022
(5) control building cable spreading room, 918-foot elevation, on May 25, 2022

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) reactor building southwest quadrant on May 3, 2022

71111.07A - Heat Exchanger/Sink Performance

Annual Review (IP Section 03.01) (1 Sample)

The inspectors evaluated readiness and performance of:

(1) reactor equipment cooling heat exchanger B evaluation on May 12, 2022

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

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

(1) The inspectors observed and evaluated licensed operator performance in the control room during downpower to 65 percent for core management on April 30, 2022.

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

(1) The inspectors observed and evaluated a simulator training scenario on April 20, 2022.

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 remain capable of performing their intended function:

(1) service water function F04 near (a)(1) on June 2, 2022
(2) fire protection function F03 near (a)(1) on June 15, 2022
(3) reactor water cleanup function F03 at (a)(1) on June 15, 2022

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (6 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) emergency diesel generator isolation switch operability test on April 12, 2022
(2) planned Yellow risk for valve SW-MO-89B failure on April 18, 2022
(3) startup transformer maintenance window on May 10, 2022
(4) week 2220 emergent issues risk management on May 19, 2022
(5) 4160 V, bus 1G, relay test on May 23, 2022
(6) high-pressure coolant injection drip leg drain test on June 27, 2022

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) water leaking from REC-269 on April 14, 2022
(2) valve SW-MO-89A minimum flow setting incorrect on April 21, 2022
(3) valve SW-MO-89B failure to open on May 4, 2022
(4) wetted residual heat removal conduit on May 13, 2022
(5) reactor equipment cooling pump B breaker high-temperature delta on June 15, 2022
(6) division 2 H2/O2 analyzer failed surveillance on June 27, 2022

71111.17T - Evaluations of Changes, Tests, and Experiments

Sample Selection (IP Section 02.01) (29 Samples)

The inspectors reviewed the following evaluations, screenings, and/or applicability determinations for 10 CFR 50.59 from June 13 to June 16, 2022.

(1) performance analysis and design (PAD) 162270, engineering evaluation EE-19-030, RCIC Minimum Flow Bypass Valve Closure Requirement Evaluation (50.59 Screening)
(2) PAD 172302, licensing basis document change request 2020-017, Modification of Technical Specification Basis Action B.3.1 and B.3.2 (50.59 Screening)
(3) procedure change request emergency procedure 5.1FLOOD, "FLOOD," revision 29 (50.59 Screening)
(4) PAD 202349, condition report CR-CNS-2020-02917, Compensatory Measure for Reactor Equipment Cooling Leakage (50.59 Screening)
(5) PAD 172276, design engineering change (DEC) 5329608, HV-DPIC-835A and/or B Replacement (50.59 Screening)
(6) PAD 172274, temporary configuration change (TCC) 5328958, Diesel Generator Cooling Water Alternate Discharge Flow Path (50.59 Screening)
(7) PAD 202422, compensatory measure for condition report CR-CNS-2021-02034 (50.59 Screening)
(8) evaluation 2021-1/TCC-5395350, MS-AOV-790AV Packing Leak Repair (50.59 Evaluation)
(9) PAD 192336, Cooper Nuclear Station vessel internals program, revision 30.0 (50.59 Screening)
(10) PAD 202385, engineering evaluation 05-001, Core Shroud Weld Flaw Analysis for Core Shroud Circumferential Welds performed by Structural Integrity Associates per NEI 96-07, revision 1 (50.59 Screening)
(11) PAD 202405, engineering evaluation 21-001, RCIC-LS-74 Evaluation of Setpoint and Tolerances (50.59 Screening)
(12) PAD 202410, Cooper Nuclear Station vessel internals program, revision 30.1 (50.59 Screening)
(13) PAD 2O2411, engineering evaluation 2L-OO7, Use-As-ls Engineering Evaluation for MS-V-205 (50.59 Screening)
(14) PAD 202443, DEC 5404656, Implement SCR 202I-OO3 for HPCI-FIS-78 (Switch 1) (50.59 Screening)
(15) PAD 202480, Revise Limiting Component Analysis for Containment Spray Motor-Operated Valves (50.59 Screening)
(16) PAD 202494, Cooper Nuclear Station vessel internals program, revision 31 (50.59 Screening)
(17) procedure change request (PCR) 2.2.20, system operating procedure 2.2.20, Standby AC Power System (Diesel Generator), revision 110
(18) PCR 2.2.69.3, system operating procedure 2.2.69.3, Residual Heat Removal Suppression Pool Cooling and Containment Spray, revision 52
(19) PAD 192321, TIP [Traversing In-core Probe] Drive Control Unit Replacement (50.59 Screening)
(20) PAD 192323, TSTF-402 LCO 3.8.1 Redundant Required Features (50.59 Screening)
(21) PAD 202370, L3501 345 KV Relay Settings Change (50.59 Screening)
(22) PAD 202372, 345 KV Panel 305 Sync Fuse Change (50.59 Screening)

(23) PAD 202395, HPCI [High-Pressure Coolant Injection] Nutherm Loss of Voltage Relay Removal (50.59 Screening)
(24) PAD 202425, Cooper 345 KV Switchyard Reactor 3401 Hydran Removal (50.59 Screening)
(25) PAD 202470, Update of NEDC 87-131D (50.59 Screening)
(26) PAD 202483, 345 KV Switchyard Replace PCB 3310 (50.59 Screening)
(27) PAD 202487, OG-MOT-OGVP (VPA) Motor Change Evaluation (50.59 Screening)
(28) PAD 202464, TSTF-554, Revise Reactor Coolant Leakage Requirements (50.59 Applicability Determination)
(29) PAD 202408, Alternate Recorder for RWCU-FR--97A/B (50.59 Screening)

71111.18 - Plant Modifications

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

The inspectors evaluated the following temporary or permanent modifications:

(1) standby gas treatment system change in drawdown to negative pressure interval and control room dose during a postulated loss of coolant accident on April 27, 2022

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (4 Samples)

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

(1) traversing in-core probe ball valve repair on April 14, 2022
(2) residual heat removal B maintenance window on May 16, 2022
(3) valve SW-V-538 replacement on May 19, 2022
(4) control room air conditioning compressor and dryer filter replacement on May 25, 2022

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance testing activities to verify system operability and/or functionality:

Surveillance Tests (other) (IP Section 03.01) (4 Samples)

(1) standby liquid control pumps operability test on April 14, 2022
(2) reactor high-pressure channel functional test on June 17, 2022
(3) torus air and water temperature calibration on June 28, 2022
(4) high-pressure coolant injection system operability test on June 29, 2022

Inservice Testing (IP Section 03.01) (1 Sample)

(1) closure testing of diesel generator starting air receiver inlet check valves on April 16, 2022

FLEX Testing (IP Section 03.02) (1 Sample)

(1) FLEX 175 kW emergency diesel generator 1 on June 16, 2022

71114.01 - Exercise Evaluation

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

(1) The inspectors evaluated the biennial emergency plan exercise conducted on May 24, 2022. The exercise scenario simulated a security event; a jet pump failure causing fuel clad damage; an anticipated transient without scram; and a steam leak from the reactor core isolation cooling (RCIC) system. The last part of the scenario resulted in a failure of both primary and secondary containment leading to an unmonitored release to the environment.

71114.04 - Emergency Action Level and Emergency Plan Changes

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

(1) The inspectors evaluated the following Emergency Plan changes and risk significant implementing procedure changes:

- emergency plan implementing procedure (EPIP) 5.7.1, "Emergency Classification," revision 72 (NRC notified 3/8/2022, effective 2/16/2022)
- Emergency Action Level Technical Basis Document, revision 0

The inspectors also evaluated the 10 CFR 50.54(q) emergency plan change process and practices between March 1, 2021, and March 20, 2022. This involved review of a selection of additional licensee screening and evaluation documentation. These evaluations and reviews do not constitute NRC approval.

71114.06 - Drill Evaluation

Drill/Training Evolution Observation (IP Section 03.02) (1 Sample)

(1) emergency preparedness dress rehearsal drill on April 5, 2022

71114.08 - Exercise Evaluation - Scenario Review

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

(1) The inspectors reviewed the licensee's preliminary exercise scenario that was submitted to the NRC on March 22, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22083A153) for the exercise scheduled to occur on May 24, 2022. The inspectors discussed the preliminary scenario with Mr. P. Martin, Manager, Emergency Preparedness, and other members of the emergency preparedness staff on April 20, 2022. The inspectors' review does not constitute NRC approval of the scenario.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

BI01: Reactor Coolant System (RCS) Specific Activity Sample (IP Section 02.10) (1 Sample)

(1) April 1, 2021, through March 31, 2022

BI02: RCS Leak Rate Sample (IP Section 02.11) (1 Sample)

(1) April 1, 2021, through March 31, 2022

EP01: Drill/Exercise Performance (DEP) Sample (IP Section 02.12) (1 Sample)

(1) April 1, 2021, through March 31, 2022

EP02: Emergency Response Organization (ERO) Drill Participation (IP Section 02.13) (1 Sample)

(1) April 1, 2021, through March 31, 2022

EP03: Alert and Notification System (ANS) Reliability Sample (IP Section 02.14) (1 Sample)

(1) April 1, 2021, through March 31, 2022

71152A - Annual Follow-up Problem Identification and Resolution

Annual Follow-up of Selected Issues (Section 03.03) (2 Samples)

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

(1) control and tracking of long-term scaffolding in the reactor building on June 1, 2022
(2) an unqualified shift technical engineer standing watch 25 times on June 9, 2022

71152S - Semiannual Trend Problem Identification and Resolution

Semiannual Trend Review (Section 03.02) (1 Sample)

(1) The inspectors reviewed the licensee's corrective action program for quality issues relating to the content, control, and promptness that might be indicative of a more significant issue with the corrective action program.

71153 - Follow-Up of Events and Notices of Enforcement Discretion

Event Report (IP Section 03.02) (1 Sample)

The inspectors evaluated the following licensee event reports (LERs):

(1) LER 05000298/2021-002-00, Valve Test Failures Result in Condition Prohibited by Technical Specifications, (ML21137A329). The circumstances surrounding this LER and a Severity Level IV non-cited violation is documented in the Inspection Results section of this report.

INSPECTION RESULTS

<table>
<tr><td colspan="4">Safety Relief Valve Lift Settings Outside of Technical Specifications Required Setpoints</td></tr>
<tr><td>Cornerstone</td><td>Severity</td><td>Cross-Cutting Aspect</td><td>Report Section</td></tr>
<tr><td>Not Applicable</td><td>Severity Level IV
NCV 05000298/2022002-01
Open/Closed</td><td>Not Applicable</td><td>71153</td></tr>
<tr><td colspan="4">A self-revealed, Severity Level IV non-cited violation of Technical Specification 3.4.3, “Safety/Relief Valves and Safety Valves,” was identified when the licensee discovered through as-found test results that two of the eight Target Rock safety relief valve pilot assemblies failed to lift within the technical specifications lift setpoint requirements.</td></tr>
<tr><td colspan="4">Description: Licensee Event Report 05000298/2021-002-00, “Valve Test Failures Result in Condition Prohibited by Technical Specifications,” (ML21137A329), was associated with two of the eight Target Rock safety relief valve (SRV) pilot assemblies as-found setpoints being outside of the ±3 percent setpoint band required for their operability. This was discovered between March 18 and March 20, 2021, during as-found testing on all eight SRV pilot assemblies that were removed during the fall 2020 refueling outage. The licensee discovered that the two SRV pilot valves stuck due to corrosion bonding. The licensee determined that these two SRVs were inoperable for an indeterminate period of time from November 14, 2018, when the unit entered mode 2 (beginning of operating cycle) to September 26, 2020, when the unit entered mode 4 (beginning of refueling outage). The inspectors reviewed the licensee event report and determined that the report adequately documented the summary of the event including the cause and potential safety consequences. The inspectors also reviewed other documents that indicate that this type of failure is a known industry issue associated with this type of valve.

Corrective Actions: The licensee replaced all eight of the SRV pilot valve assemblies with refurbished valves during the fall 2020 refueling outage. The currently installed valves were certified, tested, and as-left values were verified to be within ±1 percent of their setpoints. The licensee is tracking industry initiatives to address the known corrosion bonding phenomenon and is working on a technical specification amendment to address this issue.

Corrective Action References: condition reports CR-CNS-2019-01277, CR-CNS-2021-01483, and CR-CNS-2021-01511</td></tr>
<tr><td colspan="4">Performance Assessment: The NRC determined this violation was not reasonably foreseeable and preventable by the licensee and therefore is not a performance deficiency.</td></tr>
</table>

Enforcement: Enforcement Policy, section 2.2.4, states that violations with no associated performance deficiency will be dispositioned using traditional enforcement. Therefore, operating reactor violations with no associated performance deficiencies should be assigned a severity level and are, thus, not described as findings or assigned a color (e.g., Green).

Severity: This violation is characterized as a Severity Level IV non-cited violation based on its similarity to Severity Level IV, example 6.1.d.1, in the Enforcement Policy. The inspectors also reviewed the Enforcement Policy, section 3.10, "Reactor Violations with no Performance Deficiencies."

Violation: Cooper Nuclear Station Technical Specification 3.4.3, "Safety/Relief Valves (SRVs) and Safety Valves (SVs)," condition A, requires that with one or more required SRVs or SVs inoperable, that the unit be in mode 3 in 12 hours and mode 4 in 36 hours. Contrary to the above, two required SRVs were inoperable from November 14, 2018, to September 26, 2020, and the unit did not enter mode 3 and mode 4 in 12 hours and 36 hours respectively.

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 April 20, 2022, the inspectors presented the emergency preparedness exercise scenario review inspection results to Mr. P. Martin, Manager, Emergency Preparedness, and other members of the licensee staff.
- On June 16, 2022, the inspectors presented the Cooper Nuclear Station 10 CFR 50.59 inspection results to Mr. K. Dia, General Manager of Plant Operations, and other members of the licensee staff.
- On June 30, 2022, the inspectors presented the emergency preparedness exercise inspection results to Mr. K. Dia, Acting Vice President and Chief Nuclear Officer, and other members of the licensee staff.
- On July 18, 2022, the inspectors presented the integrated inspection results to Mr. K. Dia, General Manager of Plant Operations, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Procedures	0-BARRIER-REACTOR	Reactor Building	14
		0-CNS-FAP-WM-06	OPS Department Warm Weather Checklist	0
		14.27.4	Reactor Building Floor Drain Sump Level Calibration	4
		2.2.39	HVAC Diesel Generator Building	30
		2.2.47	HVAC Reactor Building	66
		2.2.84	HVAC Main Control Room and Cable Spreading Room	61
		5.10FLEX	Flex Support Guidelines (FSGs)	7
		5.10FLEX.32	Dam Accident Mitigation System (DAMS)	3
		5.1Flood	Flood	32
		7.0.11	Flood Control Barriers	32
	Work Orders	WO	5344013	
71111.04	Corrective Action Documents	CR-CNS-	2022-02063	
	Drawings	DWG 2006, Sheet 1	Circulating, Screen Wash & Service Water System	91
		DWG 2006, Sheet 4	Service Water System Flow Diagram	65
		DWG 2036, Sheet 1	Reactor Building Service Water System	6
		DWG 2037	Flow Diagram H&V Standby Gas Treatment & Off Gas Filters	73
		DWG 2040	Flow Diagram Residual Heat Removal System	83
		DWG 2045	Flow Diagram Core Spray System	58
	Procedures	2.2.69	Residual Heat Removal System	104
		2.2.70	RHR Service Water Booster Pump System	95
		2.2.71	Service Water System	135
		2.2.73	Standby Gas Treatment System	62
		2.2A.CS.DIV1	Core Spray Component Checklist (DIV 1)	5
		2.2A.DG.DIV1	Standby AC Power System (Diesel Generator) Component Checklist (DIV 1)	8
		2.2A.RHR.DIV1	Residual Heat Removal System Component Checklist	10

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			(DIV 1)	
		2.2A.RHR.DIV2	Residual Heat Removal System Component Checklist	
		2.2A.RHR.DIV2	Residual Heat Removal System Component Checklist (DIV 2)	14
		2.2A.RHRSW.DIV2	RHR Service Water Booster Pump System Component Checklist (DIV 2)	11
		2.2A.SGT.DIV1	Standby Gas Treatment System Component Checklist (DIV 1)	6
		2.2A.SW.DIV0	Service Water System Non-Divisional Component Checklist	12
		2.2A.SW.DIV0	Service Water System Non-Divisional Component Checklist	12
		2.2A.SW.DIV2	Service Water System Component Checklist (DIV 2)	30
		2.2B.RHR.DIV1	Residual Heat Removal System Instrument Valve Checklist (DIV 1)	1
		2.2B.RHR.DIV2	Residual Heat Removal System Instrument Valve Checklist (DIV 2)	1
		2.2B.RHR.DIV2	Residual Heat Removal System Instrument Valve Checklist (DIV 2)	1
		2.2B.RHRSW.DIV2	RHR Service Water Booster Pump System Instrument Valve Checklist (DIV 2)	1
		2.2B.SGT.DIV1	Standby Gas Treatment System Instrument Valve Checklist (DIV 1)	2
		2.2B.SW.DIV0	Service Water System Non-Divisional Instrument Valve Checklist	1
		2.2B.SW.DIV2	Service Water System Instrument Valve Checklist (DIV 2)	6
		2.2B.SW.DIV2	Service Water System Instrument Valve Checklist (DIV 2)	6
	Work Orders	WO	5343188, 5343240	
71111.05	Corrective Action Documents	CR-CNS-	2022-02221, 2022-02233	
	Fire Plans	CNS-FP-211	Reactor Building Northeast Quadrant Elevations 881’-9” and 859’-9”	5
		CNS-FP-215	Reactor Building First Floor Elevation 903’-6”	7
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		CNS-FP-397	FLEX Equipment Storage Facility Bldg. #1	0
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		0-BARRIER-REACTOR	Reactor Building	14
71111.06	Corrective Action Documents	CR-CNS-	2013-04701, 2022-01138	
	Miscellaneous	NEDC 09-102	Internal Flooding – HELB, MELB, and Feedwater Line Break	3
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71111.07A	Procedures	13.15.1	Reactor Equipment Cooling Heat Exchanger Performance Analysis	45
		3.34	Heat Exchanger Program Implementation	20
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71111.11Q	Corrective Action Documents	CR-CNS-	2022-01836	
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71111.12	Corrective Action Documents	CR-CNS-	2019-05496, 2019-06302, 2020-06131, 2022-01143, 2022-01643, 2022-01672	
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		VM-0725	Moore Products Composite Manual	9
	Procedures	15.2SW.601	SW Bay Emergency Sparger Functional Test	5
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		3-EN-DC-205	Maintenance Rule Monitoring	7C0
		5.8.8	Alternate Boron Injection and Preparation	17
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71111.13	Corrective Action Documents	CR-CNS-	2022-02074, 2022-02084, 2022-02685	
	Miscellaneous		Protected Equipment Tagout, RHRB-1-SW-MOV-89B INOP	04/18/2022
			Protected Equipment Tagout, EE-1-WK 2219 EE-SSST	05/10/2022
			Protected Equipment Tagout, DGB-1-DG2 Week 2220	05/16/2022
		0-BARRIER-MISC	Miscellaneous Buildings	8
		0-CNS-06	Site Risk Significance Standards	4
		0-CNS-WM-104	On-Line Schedule Risk Assessment	13
		0-PROTECT-EQP	Protected Equipment Program	59
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		6.1DG.104	Diesel Operability Test with Isolation Switches in Isolate (DIV 1)	24
		6.HPCI.204	HPCI-SOV-SSV64 and HPCI-SOV-SSV87 IST Closure Test	17

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		DWG 2036	Flow Diagram Reactor Building - Service Water System	A6
	Miscellaneous		ECR Number – CR-CNS-2022-01672	04/21/2022
			ECR Number – CR-CNS-2022-01643-CA-006	04/21/2022
			Overthrust/Overtorque Evaluation Sign-Off and Review Sheet, SW-MOV-MO89B	04/18/2022
		ODM – MCC-K(4D)	Operational Decision Making Review for MCC-K(4D)	1
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		7.5.3	MOV Diagnostics	13
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71111.17T	Calculations	NEDC 00-041	Limiting Component Analysis for Containment Spray Motor Operated Valves	3
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	Corrective Action Documents	CR-CNS-	2016-02281, 2018-07146, 2019-02583, 2021-01653, 2021-02034, 2021-02943	
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	Changes	DC 5319938	HPCI LOV [Loss of Voltage] Relay Removal	0
		DEC 5314933	TIP Drive Control Unit Replacement	0
		DEC 5329608	HV-DPIC-835A&B Replacement	0
		DEC 5345657	Alternate Recorder for RWCU-FR-97A/B	0
		DEC 5404656	HPCI-FIS-78 SCR 202I-003 for Switch 1	0
		EE 19-030	RCIC Minimum Flow Bypass Valve Closure Requirements Evaluation	0
		EE 21-001	RCIC-LS-74 Evaluation of Setpoint and Tolerances	15C15
		EE 21-007	Use-As-Is Engineering Evaluation for MS-V-205	03/24/2021
		EE 21-018	Update of NEDC 87-131D	12/20/2021
		EE 22-004	OG-MOT-OGVP (VPA) Motor Change Evaluation	0
		TCC 5328958	Diesel Generator Cooling Water Alternate Discharge Flow Path	0
		TCC 5395350	MS-AOV-790AV Packing Leak Repair	0
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		Cooper 345kV - 930096	NPPD Relay Setting Request	05/14/2020
		MSPI EAC Dec 2019	Regulatory Performance Indicator Process for MSPI EAC	01/18/2020
		VM 1869	Vendor Manual for Siemens Model 353 Process Automation Controller	02/00/2011
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		0-CNS-LI-101	10CFR50.59 Evaluations	3
		0.4	Procedure Change Process	71
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		2.0.1.3	Conduct of Operations Procedure - Time Critical Operator Action Control and Maintenance	9
		2.0.3	Conduct of Operations	105
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		3-EN-DC-115	Engineering Change Process	15C16

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71111.19	Miscellaneous	VM-0248	Crane Valve Composite Manual	17
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	Work Orders	WO	5227024, 5345882, 5346891, 5373673, 5383074, 5406580, 5412710, 5412711, 5423432, 5442690	
71111.22	Corrective Action Documents	CR-CNS-	2022-02108, 2022-02780, 2022-02785, 2022-02807	
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		6.HPCI.103	HPCI IST and 92 Day Test Mode	60
		6.LOG.601	Daily Surveillance Log – Modes 1, 2, and 3	142
		6.RHR.706	Reactor High-Pressure Channel Functional Test	10
		6.SLC.101	SLC Pump Operability Test	28
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71114.01	Corrective Action Documents	CR-CNS-	2020-00227, 2020-00349, 2020-00526, 2020-00670, 2020-01442, 2021-00892, 2021-02452, 2021-02749, 2021-02769, 2021-02957, 2021-03197, 2021-03560, 2021-03792, 2021-05452, 2022-00028, 2022-02226, 2022-02229, 2022-02234	
	Miscellaneous		February 25, 2020, Full Team Dress Rehearsal Exercise	03/16/2020
			2021 NRC/FEMA Biennial Exercise - ERO Team "D"	06/24/2021
			February 2, 2021, Full Team B Drill	03/01/2021
			2021 Biennial Exercise Dress Rehearsal	05/05/2021
			April 5, 2022, Full Team 2 & B Dress Rehearsal Drill	04/15/2022
			2022 Emergency Management Performance Evaluation	02/09/2022

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			Dress Rehearsal Drill	
			2022 Emergency Management Performance Evaluation Drill	02/16/2022
			July 31, 2018, Biennial NRC-Graded Exercise Summary Report	08/10/2018
			Updated Final Safety Analysis	30
			Emergency Plan for Cooper Nuclear Station	79
			EAL Technical Basis Document	0
		Controller/Evaluator Log	TSC, Engineering Team Lead	05/24/2022
		Controller/Evaluator Log	TSC, Engineering Mechanical	05/24/2022
		Controller/Evaluator Log	TSC, Lead Evaluator	05/24/2022
		Controller/Evaluator Log	TSC, Security Coordinator	05/24/2022
		Emergency Action Log	Ops/EOP Adviser	05/24/2022
		Emergency Action Log	TSC Communicator	05/24/2022
		Notification Report Number 3	Drill SA6.1 Alert Declaration, 10:03 a.m.	05/24/2022
		Notification Report Number 4	Drill FS1.1 Site Area Emergency Declaration, 10:23 a.m.	05/24/2022
		Notification Report Number 5	Drill AG1.2 General Emergency Declaration, 10:41 a.m.	05/24/2022
		Notification Report Number 6	Drill AG1.2 General Emergency Follow-Up, 11:03 a.m.	05/24/2022
		Notification Report Number 7	Drill AG1.2 General Emergency Follow-Up, 12:02 p.m.	05/24/2022
		TSC Log	May 24th Biennial Exercise, CNS TSC Log Keeper	
		TSC09	Position Instruction Manual	15
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		5.7.9	Activation of EOF	37
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71114.04	Engineering Changes	DEC-5416038	TSC/OSC Upgrades	0
	Miscellaneous		Emergency Plan for Cooper Nuclear Station	79
			Updated Final Safety Analysis	30
			EAL Technical Basis Document	0
		2021-37	Emergency Preparedness Regulatory Review (50.54(q))	0
		2021-63	Emergency Preparedness Regulatory Review (50.54(q))	0
		5.7.1	Emergency Classification	72
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		50.54(q) Evaluation Number: 2021-94	Activity/Document Number: TSC/OSC Upgrade, Title: "Digital Upgrade and Remodel of TSC/OSC"	01/10/2022
		50.54(q) Evaluation Number: 2022-06	Activity/Document Number: DEC 5338473, Title: EPN Component Replacement	02/03/2022
		50.54(q) Screen Number: 2021-092	Activity/Document Number: 5.7.1, Revision Number: 72, Title: Emergency Classification	01/04/2022
		50.54(q) Screen Number: 2021-94	Activity/Document Number: DEC-5416038, Revision Number: 0, Title: TSC/OSC Upgrades	01/07/2022
		50.54(q) Screen Number: 2022-06	Activity/Document Number: DEC-5338473, Title: EPN Component Replacement	02/03/2022
		83307	Intranet Document Control System	05/24/2021
		NLS2022006	Emergency Plan Implementing Procedure, Cooper Nuclear Station, Docket No. 50-298, DPR-46	03/08/2022
	Procedures	0.29.1	License Basis Document Changes	44

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71114.08	Miscellaneous	NLS2022013	Emergency Plan Full Participation Exercise Drill Scenario, Cooper Nuclear Station, Docket No. 50-298, DPR-46	03/22/2022
	Procedures	2.1.5	Reactor Scram	78
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			Performance Indicator Documentation and Data Review Forms from April 2021 through March 2022	
	Procedures	0-EN-LI-114	Regulatory Performance Indicator Process	17C0
		8.8.1.14	Radiochemical Iodines Analysis	18
		EPDG No. 2, Attachment C-1	Semi-Monthly Alert and Notification System Siren Testing	22
		EPDG No. 2, Attachment C-5	Annual Full-Cycle Sounding of Alert and Notification System Sirens	15
71152S	Corrective Action Documents	CR-CNS-	2021-05061, 2022-01643, 2022-01646, 2022-01647, 2022-01777, 2022-01778, 2022-01789, 2022-01869, 2022-01870, 2022-01871, 2022-01896, 2022-01912, 2022-02737, 2022-02821	
	Miscellaneous	USA M-1	10 CFR 50.59 Resource Manual	1
	Procedures	0-CNS-LI-100	Process Applicability Determination	3
		0-CNS-LI-102	Corrective Action Process	15
		0.5.OPS	Operations Review of Condition Reports/Operability Determinations	66
		7.0.7	Scaffolding Construction and Control	38
	Work Orders	WO	5367582	
71153	Corrective Action Documents	CR-CNS-	2019-01277, 2021-01483, 2021-01511	