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

November 4, 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 – INTEGRATED INSPECTION REPORT 05000298/2021003

Dear Mr. Dent:

On September 30, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Cooper Nuclear Station. On October 4, 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.

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

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

Sincerely,

Signed by Kozal, Jason
on 11/04/21

Jason W. Kozal, Chief
Reactor Projects Branch C
Division of Reactor Projects

Docket No. 05000298
License No. DPR-46

Enclosure:
As stated

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COOPER NUCLEAR STATION – INTEGRATED INSPECTION REPORT 05000298/2021003
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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number:	05000298
License Number:	DPR-46
Report Number:	05000298/2021003
Enterprise Identifier:	I-2021-003-0131
Licensee:	Nebraska Public Power District
Facility:	Cooper Nuclear Station
Location:	Brownville, NE
Inspection Dates:	July 1, 2021, to September 30, 2021
Inspectors:	D. Antonangeli, Health Physicist D. Bryen, Project Engineer K. Chambliss, Resident Inspector J. O'Donnell, Senior Health Physicist G. Pick, Senior Reactor Inspector A. Siwy, Senior Resident Inspector M. Stafford, Nuclear Systems Engineer
Approved By:	Jason W. Kozal, Chief Reactor Projects Branch C 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 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

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

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000298/2020-002-00	Secondary Containment Differential Pressure Perturbation Results in Potential Loss of Safety Function	71153	Closed
LER	05000298/2021-001-00	Secondary Containment Differential Pressure Perturbation Exceeds Technical Specifications	71153	Closed
LER	05000298/2020-004-00	Secondary Containment Differential Pressure Perturbation Could Have Prevented Fulfillment of a Safety Function	71153	Closed

PLANT STATUS

Cooper Nuclear Station began the inspection period at rated thermal power. On August 6, 2021, power was lowered to approximately 67 percent for a control rod sequence exchange. The plant was returned to rated thermal power on August 7, 2021. 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 reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

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

REACTOR SAFETY

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (7 Samples)

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

(1) Standby liquid control subsystem B on July 7, 2021
(2) Reactor core isolation cooling on July 26, 2021
(3) Core spray B on August 3, 2021
(4) Division 2 reactor equipment cooling on August 10, 2021
(5) Division 1 emergency diesel generator on August 18, 2021
(6) Division 2 emergency diesel generator on September 16, 2021
(7) High pressure coolant injection on September 22, 2021

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (9 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, 976-foot elevation, on July 6, 2021
(2) Reactor building northeast quadrant, 881-foot 9-inch elevation and 859-foot 9-inch elevation, on July 28, 2021
(3) Reactor building southeast quadrant, 881-foot 9-inch elevation and 859-foot 9-inch elevation, on August 3, 2021
(4) Reactor building second floor, 931-foot 6-inch elevation, on August 10, 2021
(5) Division 2 emergency diesel generator room, 917-foot 6-inch elevation and 903-foot 6-inch elevation, on August 16, 2021
(6) Reactor building southwest quadrant, 881-foot 9-inch elevation and 859-foot 9-inch elevation, on August 24, 2021
(7) Reactor building third floor, 958-foot 3-inch elevation, on August 28, 2021
(8) Reactor building refuel floor, 1001-foot elevation, on September 2, 2021
(9) Turbine building basement north condensate pump area, 882-foot 6-inch elevation, on September 14, 2021

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

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

(1) The inspectors observed and evaluated licensed operator performance in the control room during downpower and rod pattern adjustment on August 6, 2021.

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

(1) The inspectors observed and evaluated the licensed operator requalification scenario on July 13, 2021.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (4 Samples)

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

(1) FLEX equipment operating experience smart sample 2020/01 (ADAMS Accession No. ML20220A261) on July 9, 2021
(2) Open phase isolation system on September 1, 2021
(3) Reactor core isolation cooling on September 28, 2021
(4) Dry compressed air for instrument air near A(1) on September 29, 2021

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (4 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) Yellow risk during standby liquid control subsystem A maintenance on July 7, 2021
(2) Yellow risk during high pressure coolant injection instrument repair on July 28, 2021
(3) Yellow risk during Division 1 4160 volt bus undervoltage/underfrequency testing on August 2, 2021
(4) Yellow risk during Division 2 4160 volt bus undervoltage testing on August 25, 2021

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) Standby liquid control pump A motor results on July 8, 2021
(2) Limiting condition of operation not entered during maintenance on primary containment valves on July 23, 2021
(3) Secondary containment operability in relation to a steam leak on August 19, 2021
(4) Southeast quadrant heating, ventilation, and air conditioning flow rate on August 31, 2021
(5) Reactor equipment cooling pump D motor inductance imbalance on September 13, 2021
(6) Control rod drive mechanism high accumulator water level on September 14, 2021

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (3 Samples)

The inspectors evaluated the following temporary or permanent modifications:

(1) Emergency service station transformer motor operated disconnect switch on July 14, 2021
(2) Southeast quadrant fan coil unit replacement on August 26, 2021
(3) Open phase isolation modifications on September 20, 2021

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (6 Samples)

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

(1) Primary containment valve torus isolation on July 19, 2021

(2) Division 2 emergency diesel generator starting air compressor operability test on July 23, 2021
(3) Core spray pump A test line recirculation valve on August 4, 2021
(4) Reactor equipment cooling pump B replaced on August 12, 2021
(5) Core spray check valve on August 19, 2021
(6) Fan coil unit FC-R-1E air flow test (newly installed fan coil) on August 19, 2021

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Surveillance Tests (other) (IP Section 03.01) (5 Samples)

(1) Division 1 emergency diesel generator monthly surveillance on July 12, 2021
(2) Reactor core isolation cooling pump low discharge flow calibration and steam supply pressure low channel functional test on July 16, 2021
(3) Service water pump B in-service test on July 26, 2021
(4) Reactor equipment cooling pumps C and D in-service tests on August 28, 2021
(5) High pressure coolant injection quarterly surveillance on September 15, 2021

71114.06 - Drill Evaluation

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

(1) Emergency preparedness drill on August 31, 2021

RADIATION SAFETY

71124.05 - Radiation Monitoring Instrumentation

Walkdowns and Observations (IP Section 03.01) (7 Samples)

The inspectors evaluated the following radiation detection instrumentation during plant walkdowns:

(1) Area radiation monitors and continuous air monitors in the reactor building, turbine building, and radwaste building
(2) High purity germanium detectors and liquid scintillation counter in the chemistry lab
(3) Friskers staged for use in the reactor building, radwaste building, and radiologically controlled area exits
(4) SAM-12s staged for use at the exit of the radiologically controlled areas
(5) iPCM-12 located at the radiologically controlled area exits
(6) Telepoles and portable ion chambers staged for use within the radiological controlled area
(7) Tennelec XLB alpha/beta counters located within the radiation protection count room

Calibration and Testing Program (IP Section 03.02) (14 Samples)

The inspectors evaluated the calibration and testing of the following radiation detection instruments:

(1) G17 ion chamber, RMA-RA-1, 03/04/2020
(2) G17 ion chamber, RMA-RA-2, 03/04/2020
(3) G12 ion chamber, RMP-RM-452C, 03/04/2021
(4) Victoreen Model 875 high range containment monitor, RMA-RM-40A, 04/14/2021
(5) Victoreen Model 875 high range containment monitor, RMA-RM-40B, 04/14/2021
(6) Eberline passive monitor (PM) -7, RP-10758, 11/09/2020
(7) Eberline personnel contamination monitor (PCM) -2, RP-10788, 02/27/2020
(8) Eberline small article contamination monitor (SAM) -12, RP-11152, 05/20/2020
(9) Eberline SAM-12, RP-11150, 05/20/2020
(10) Telepole II Geiger-Mueller survey meter, RP-11969, 10/10/2020
(11) Ludlum Model 3 count rate meter, RP-11363, 04/22/2021
(12) Frisker Model 177, RP-11276, 07/09/2020
(13) Eberline AMS-4, RP-10872, 07/07/2021
(14) Tennelec XLB alpha/beta counter, RP-10848, 03/02/2020

Effluent Monitoring Calibration and Testing Program Sample (IP Sample 03.03) (2 Samples)

The inspectors evaluated the calibration and maintenance of the following radioactive effluent monitoring and measurement instrumentation:

(1) Elevated effluent release point monitor, RMP-RM-3A/3B
(2) Reactor building vent effluent monitor, RMV-RM-40

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 in controlling, labeling and securing radioactive materials. The following areas were observed by the inspectors:

(1) Low level radioactive waste pad
(2) Radioactive material storage building
(3) East warehouse radioactive materials area

Radioactive Waste System Walkdown (IP Section 03.02) (2 Samples)

Inspectors walked down accessible portions of the solid radioactive waste systems and evaluated system configuration and functionality.

(1) Condensate resin
(2) Equipment drain/floor drain filter demineralizer

Waste Characterization and Classification (IP Section 03.03) (3 Samples)

The inspectors evaluated the licensee's characterization and classification of radioactive waste.

(1) Condensate and waste resin
(2) Spent bead resin
(3) Dry active waste

Shipment Preparation (IP Section 03.04) (1 Sample)

The inspectors observed that a shipment containing radioactive material is prepared according to requirements.

(1) Shipment No. 21-05, low specific activity, LSA-II, dry active waste (trash) in a 20-foot sea/land container (ESUU200542), 07/20/2021

Shipping Records (IP Section 03.05) (5 Samples)

The inspectors evaluated the following nonexcepted radioactive material shipments through a record review:

(1) Shipment No. 19-12, LSA-I, dry active waste (metal trash) in a 20-foot sea/land container (No. 209002), 09/16/2019
(2) Shipment No. 19-13, Type A, high integrity container (PO690656-10), activated metal and contaminated, noncompactible metal trash, 10/22/2019
(3) Shipment No. 20-02, LSA-II, condensate sludge and resin liner (PO690095-01), 06/20/2020
(4) Shipment No. 21-02, LSA-II, steel liner (No. 680262-3) filters and bulk dry active waste, 05/11/2021
(5) Shipment No. 21-05, LSA-II, dry active waste (trash) in a 20-foot sea/land container (ESUU200542), 07/20/2021

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

IE01: Unplanned Scrams per 7000 Critical Hours Sample (IP Section 02.01) (1 Sample)

(1) January 1, 2020, through June 30, 2021

IE03: Unplanned Power Changes per 7000 Critical Hours Sample (IP Section 02.02) (1 Sample)

(1) January 1, 2020, through June 30, 2021

IE04: Unplanned Scrams with Complications (USwC) Sample (IP Section 02.03) (1 Sample)

(1) April 1, 2020, through June 30, 2021

MS05: Safety System Functional Failures (SSFFs) Sample (IP Section 02.04) (1 Sample)

(1) April 1, 2020, through June 30, 2021

71152 - Problem Identification and Resolution

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) Effectiveness of corrective actions related to the full implementation cyber security inspection findings as discussed in NRC Inspection Report 05000298/2019410 (ADAMS Accession No. ML19175A252)
(2) Limiting condition of operation not entered during maintenance on primary containment valves on August 30, 2021
(3) Failure to properly implement the fatigue management program on September 10, 2021

71153 - Follow Up of Events and Notices of Enforcement Discretion

Event Report (IP Section 03.02) (3 Samples)

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

(1) LER 05000298/2020-002-00, Secondary Containment Differential Pressure Perturbation Results in Potential Loss of Safety Function (ADAMS Accession No. ML20304A209). The circumstances surrounding this LER and an associated minor performance deficiency are documented in the Inspection Results section of this report.
(2) LER 05000298/2020-004-00, Secondary Containment Differential Pressure Perturbation Could Have Prevented Fulfillment of a Safety Function (ADAMS Accession No. ML21022A042). The inspectors determined that it was not reasonable to foresee or correct the cause discussed in the LER; therefore, no performance deficiency was identified. The inspectors did not identify a violation of NRC requirements.
(3) LER 05000298/2021-001-00, Secondary Containment Differential Pressure Perturbation Exceeds Technical Specifications (ADAMS Accession No. ML21102A278). The circumstances surrounding this LER and an associated minor performance deficiency are documented in the Inspection Results section of this report.

INSPECTION RESULTS

Minor Performance Deficiency	71153
Minor Performance Deficiency: On August 6, 2020, secondary containment vacuum was reduced below the limit of 0.25 inches of vacuum water gauge, which is required by Technical Specification Surveillance Requirement 3.6.4.1.1. This condition existed for 3 minutes and was identified by operations personnel after it had occurred due to a computer alarm in the control room. This condition was initially concluded to be a momentary transient due to gusty wind conditions, which is considered acceptable and not a cause for failure to meet the	

surveillance requirement. An engineering review completed on August 13, 2021, concluded it was the result of an equipment issue rather than gusty wind conditions. This condition was a result of an air-line leak between the valve positioner and the lower diaphragm of a vortex damper due to contact with a support brace that was installed on November 7, 2007. At the time the support brace was installed, Attachment 15 of Procedure 3.4, "Configuration Change Control," Revision 59, required an administrative engineering change to install the support brace. The guidance at the time of the causal evaluation was in Attachment 6 of Procedure 3-CNS-DC-112, "Engineering Change Request and Project Initiation Process," Revision 0, which required an engineering change request. Contrary to the above, from November 7, 2007, to January 27, 2021, the licensee failed to properly evaluate the support brace as an engineering change in accordance with their procedures.

Screening: The inspectors determined the performance deficiency was minor. The performance deficiency associated with this violation was determined to be minor because: it could not be reasonably viewed as a precursor to a significant event; if left uncorrected, it would not have the potential to lead to a more significant safety concern; and it did not adversely affect the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers (containment) protect the public from radionuclide releases caused by accidents or events. Specifically, the performance deficiency did not affect the integrity of the secondary containment structure, nor did it affect the ability of the safety-related standby gas treatment system to perform its required safety function.

Minor Performance Deficiency	71153

Minor Performance Deficiency: On February 9, 2021, secondary containment vacuum was reduced below the limit of 0.25 inches of vacuum water gauge, which is required by Technical Specification Surveillance Requirement 3.6.4.1.1. This condition existed for less than 30 seconds and was identified by operations personnel after it had occurred due to a computer alarm in the control room. This condition was concluded to be a momentary transient due to barometric pressure changes. A similar issue occurred on November 3, 2020 and is documented in LER 05000298/2020-004-00 (ADAMS Accession No. ML21022A042). It was determined in both occurrences that the tuning parameters of the reactor building differential pressure controllers were not optimized to maintain the required pressure during changing conditions. After the first occurrence, the licensee decided not to implement interim actions on the basis that the condition was unlikely to repeat prior to full action implementation. Procedure 0-CNS-LI-118, "Cause Evaluation Process," Section 8.2, requires interim corrective actions to address short term vulnerabilities. Contrary to the above, from November 3, 2020, through February 9, 2021, the licensee failed to develop interim actions to address short term vulnerabilities.

Screening: The inspectors determined the performance deficiency was minor. The performance deficiency associated with this violation was determined to be minor because: it could not be reasonably viewed as a precursor to a significant event; if left uncorrected, it would not have the potential to lead to a more significant safety concern; and it did not adversely affect the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers (containment) protect the public from radionuclide releases caused by accidents or events. Specifically, the performance deficiency did not affect the integrity of the secondary containment structure, nor did it affect the ability of the safety-related standby gas treatment system to perform its required safety function.

EXIT MEETINGS AND DEBRIEFS

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

- On July 22, 2021, the inspectors presented the public radiation safety inspection results to Mr. K. Dia, General Manager of Plant Operations, and other members of the licensee staff.
- On September 22, 2021, the inspectors presented the cyber security full implementation problem identification and resolution inspection results to Mr. J. Wissler, Nuclear Information Technology Manager, and other members of the licensee staff.
- On October 4, 2021, the inspectors presented the integrated inspection results to Mr. J. Dent, Vice President and Chief Nuclear Officer, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.04	Procedures	2.2.20	Standby AC Power System (Diesel Generator)	112
		2.2.20.1	Diesel Generator Operations	75
		2.2.33A	High Pressure Coolant Injection System Component Checklist	33
		2.2.33B	High Pressure Coolant Inject System Instrument Valve Checklist	9
		2.2.67A	Reactor Core Isolation Cooling System Instrument Valve Checklist	24
		2.2.74A	Standby Liquid Control System Component Checklist	12
		2.2A	Reactor Equipment Cooling Water System Component Checklist (Div 2)	3
		2.2A.DG.DIV1	Standby AC Power System (Diesel Generator) Component Checklist (Div 1)	8
		2.2A.DG.DIV2	Standby AC Power System (Diesel Generator) Component Checklist (Div 2)	8
		2.2B	Core Spray System Instrument Valve Checklist	1
71111.05	Fire Plans	CNS-FP-211	Reactor Building Northeast Quadrant Elevations 881'-9" and 859'-9	5, 6
		CNS-FP-214	Reactor Building Southwest Quadrant Elevations 881'-9" and 859'-9"	6
		CNS-FP-218	Reactor Building Second Floor Elevation 931'-6"	11
		CNS-FP-219	Reactor Building – Third Floor Elevation 958'-3"	14
		CNS-FP-220	Reactor Building SBLC Area Elevation 976'-0	9
		CNS-FP-221	Reactor Building MG Set Area Elevation 976'-0	8
		CNS-FP-223	Reactor Building – Refuel Floor Elevation 1001'-0"	6
		CNS-FP-237	Diesel Generator Building Diesel Generator #2 Elevations 917'-6" and 903'-6"	5
		CNS-FP-245	Turbine Building Basement North – Condensate Pump Area Elevation 882'-6"	6
	Procedures	0-BARRIER-MAPS	Barrier Maps	12

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.11Q	Miscellaneous	RMP 32-012		0
	Procedures	2.0.3	Conduct of Operations	104
71111.12	Corrective Action Documents	CR-CNS-	2019-02127, 2021-02941	
	Miscellaneous		Maintenance Rule Unavailability Reports	09/24/2021
			FLEX, HCVS, and DAMS Program Document	4
			REC (Reactor Equipment Cooler) Pump Vibration and Spectral Data	08/28/2021
		VM-0143	Instrument Air System	14
		VM-2912	Open Phase Protection (OPP) System Operating and Maintenance Manual	1
	Procedures	15.AIR.501	Plant Air System Examination	25
		15.EE.701	Open Phase Active System Functional Test	4
		7.2.21	Air Dryer Desiccant Removal and Replacement	10
	Work Orders	WO	5305639, 5315637, 5349739, 5349740, 5361148, 5363543, 5363544, 5371520	
71111.13	Drawings	3019, Sheet 3		
	Miscellaneous		Clearance Order SLC-1-SLC-P-A Week 2127	
	Procedures	6.1EE.302	4160V Bus 1F Undervoltage Relay and Relay Timer Functional Test (Div 1)	47
		6.2EE.302	4160V Bus 1F Undervoltage Relay and Relay Timer Functional Test (Div 2)	46
		6.HPCI.312	HPCI Pump Low Discharge Flow Channel Calibration	13
	Work Orders	WO	5401691	
71111.15	Corrective Action Documents	CR-CNS-	2021-02285, 2021-03239, 2021-03644, 2021-03874, 2021-04315	
	Miscellaneous	DEC-5347082	Replacement of HV-COIL-FC-R-1E, (FCR #2&3)	0
		NEDC 90-388	HPCI Room and CS & RHR Quad Heat Load Tabulation for REC	3C2
		NEDC 97-087	Acceptance Criteria for HPCI Room Cooler and Reactor Building Quad Coolers	4C3
		USAR, Section III-5	Control Rod Drive Mechanism Design	03/08/2000

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		VM-1037	Control Rod Drive Model 7RDB144EG001	6
	Procedures	2.2.8	Control Rod Drive Hydraulic System	115
		6.SC.502	Secondary Containment Penetration Examination	20
		7.3.20.3	Motor Analysis	20
	Work Orders	WO	5237983, 5339707, 5383218	
71111.18	Engineering Changes	EC 6038060	Installation of PSStech OPP System on SSST and ESST	
		EC 6039780	Review of Zachary Calculation 16-101, ECN #1	
	Miscellaneous		Aerofin Calculation File, Aerofin Type W Coil, CA-529-2046-1	1
			Aerofin Calculation File, Aerofin Type W Coil, CA-1811	0
		DEC-5347082	Replacement of HV-COIL-FC-R-1E	0
		NEDC 97-074	Thermal Performance of the HPCI Room Cooler and the CS & RHR Quad Coolers	2C3
	Procedures		Cooper Nuclear Station Cyber Security Plan	
71111.19	Procedures	6.1CS.101	Core Spray Test Mode Surveillance Operation (IST) (Div 1)	34
		6.1PC.204	PC Purge and Vent Valve 24 Month Test (Div 1) (IST)	4
		6.1REC.101	REC Surveillance Operation (IST) (Div 1),	21
		6.2CS.101	Core Spray Test Mode Surveillance Operation (IST) (Div 2)	33
		6.2DG.105	Diesel Generator Starting Air Compressor Operability (IST)(Div 2)	2
		6.2HV.601	Air Flow Test of Fan Coil Unit FC-R-1E (Div 2)	9
		6.PC.522	Standby Nitrogen Injection and PC Purge and Vent System Local Leak Rate Tests	22
	Work Orders	WO	5304567, 5339707	
71111.22	Corrective Action Documents	CR-CNS-	2021-03381	
	Procedures	6.1DG.101	Diesel Generator 31 Day Operability Test (IST) (Div 1)	93
		6.1RCIC.703	RCIC Steam Supply Pressure Low Channel Functional Test (Div 1)	10
		6.1SW.101	Service Water Surveillance Operation (Div 2)(IST)	25
		6.2REC.101	REC Surveillance Operation (IST) (Div 2)	21
		6.HPCI.103	HPCI IST and 92 Day Test Mode	59
		6.RCIC.302	RCIC Pump Low Discharge Flow Channel Calibration	13
	Work Orders	WO	5363759, 5385905	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71114.06	Miscellaneous	EPIPEALHOT	CNS EAL Wall Chart Hot	22
71124.05	Calibration Records		Calibrator Verification Exposure Rate Table	01/05/2021
			Eberline Passive Monitor (PM)- 7, RP-10758	11/03/2020
			Eberline Personnel Contamination Monitor (PCM)- 2, RP-10788	02/27/2020
			Eberline Small Article Contamination Monitor (SAM)-12, RP-11152	05/20/2020
			Eberline SAM-12, RP-11150	05/20/2020
			Telepole II Geiger-Mueller Survey Meter, RP-11969	10/10/2020
			Ludlum Model 3 Count Rate Meter, RP-11363	04/22/20201
			Eberline Air Monitoring Station (AMS)-4	07/07/2021
			Tennelec XLB Alpha/Beta Counter, RP-10848	03/02/2020
			Frisker Model 177, RP-11276	07/09/2020
		WO 5205832	Reactor Building Ventilation Radiation Monitor, RMP-RM-452B	09/09/2019
		WO 5238323	Control Room Area Radiation Monitor, RMA-RA-20	03/06/2020
		WO 5282475	High Range Containment Monitor Victoreen Model 875, RMA-RM-40A	10/04/2020
		WO 5291902	Main Steam Line Radiation Monitors (MSLRM), RMP-RM-251D	10/08/2020
		WO 5337774	Containment High Range Monitor Victoreen Model 875, RMA-RM-40B	03/02/2020
		WO 5362219	Reactor Building Ventilation Radiation Monitor, RMP-RM-452A	09/20/2020
	Corrective Action Documents	CR-CNS-	2019-04420, 2019-04713, 2019-06406, 2020-00717, 2020-01052, 2020-01067, 2020-01080, 2020-01508, 2020-02009, 2020-03028, 2020-03308, 2021-01539, 2021-02180	
	Miscellaneous		CNS System Health for Radiation Monitor Systems	06/01/2020
			Effluent Radiation Monitors Out of Service Longer Specified in the Offsite Dose Assessment Manual (ODAM)	07/19/2021
			The Past Three Annual Trends of the Vent/Stack Effluent Flow Rates Via Chart	06/17/2021
	Procedures	6.PRM.308	Liquid Radwaste Effluent System Channel Calibration	16
		6.PRM.310	ERP Kaman Monitor Channel Calibration	30
		6.PRM.313	Reactor Building Kaman Monitor Channel Calibration	20

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		6.PRM.320	Radwaste Building Kaman Monitor Channel Calibration	30
		6.PRM.322	Containment High Range Area Monitor Channel Calibration	21
		6.PRM.323	High Range Containment Monitor Victoreen Model 875 Source Calibration Check	9
		6.PRM.328	Kaman Sample Flow System Channel Calibration	16
		8-CNS-CY-102	Laboratory Analytical Quality Control	3
		9.ALARA.3	Operation of the Canberra Fastscan Whole Body Counter with Apex-Invivo	20
		9.INST.14	Tennelec Eclipse LB Operation	6
		9.INST.15	REM 500 Neutron Survey Meter	2
		9.INST.53	Ion Chamber Survey Instrument Eberline Model RO-20	7
		9.INST.57	Friskers	6
		9.INST.64	Thermo Electron Corporation Small Articles Monitor SAM	6
		9.INST.68	WR Telepole GM Survey Instrument	5
		9.INST.70	Telepole II Telescopic Meter	0
71124.08	Corrective Action Documents	CR-CNS-	2019-05715, 2020-01085, 2020-02092, 2020-03042, 2020-06381	
	Corrective Action Documents Resulting from Inspection	CR-CNS-	2021-03440, 2021-03464, 2021-03472	
		WT-	2021-0001-249	
	Miscellaneous		Local Law Enforcement Agency Meeting Attendance	12/18/2020
			Cooper Nuclear Station Part 37 Security Plan for the Protection of Category 1 and Category 2 Quantities of Radioactive Material	05/24/2016
			Process Control Program (Uncontrolled)	11/10/2015
		CNS RP-504	Radioactive Source Inventory and Leak Test Record	12/23/2020
		RAD916-01-04	RP and Radioactive Transport Actions Regarding 10 CFR Part 37 "Protection of Category 1 and Category 2 Radioactive Material"	3
		Sample No. 526708005	Waste Stream Analysis Review for Dry Active Waste	12/21/2020
		Sample No. 530399001	Waste Stream Analysis Review for Condensate/Waste Resins	01/20/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		Sample No. 542677001	Waste Stream Analysis Review for Spent Bead Resin	06/08/2021
	Procedures	0.PCP.1	Process Control Program (PCP)	1
		59.RW.10	Physical Protection of Category 1 Quantities of Radioactive Material	9
		9.RADOP.1	Radiation Protection at CNS	15
		9.RW.1	Radioactive Shipments	40
		9.RW.7	Waste Stream Sampling	19
		9.RW.9	Filling Containers with Waste/Radioactive Material	18
		Security Procedure 2.16	Radioactive Materials Security	2
	Radiation Surveys	CNS-2104-0024	Horizontal Storage Module Pad	02/21/2021
		CNS-2105-0025	Radioactive Material Storage Building	05/19/2021
		CNS-2106-0012	Underwater Survey of Spent Fuel Pool and Items Stored Within	06/15/2021
		CNS-2107-0010	Low Level Radioactive Waste Building, Perimeter Fencing and General Area	07/14/2021
	Self-Assessments	2019	Radiation Protection Program Annual Report	05/27/2020
		LO-2019-0039-001	10 CFR Part 37 - At Facilities with a 10 CFR Part 73 Physical Protection Program	02/27/2020
		LO-2020-0127	Radiological Monitoring Instrumentation and Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transport	04/19/2021
		LO-2020-066-001	10 CFR Part 37 - At Facilities with a 10 CFR Part 73 Physical Protection Program	02/22/2021
		QAD 2020-0019	Quality Assurance Audit 20-04, "Radiological Controls"	08/19/2020
	Shipping Records	Shipment No. 19-12	LSA-I, Dry Active Waste (Metal Trash) in a 20-foot Sea/Land (#209002)	09/16/2019
		Shipment No. 19-13	Type A, High Integrity Container (PO690656-10), Activated Metal and Contaminated, Non-Compactible Metal Trash	10/22/2019
		Shipment No. 20-02	LSA-II, Condensate Sludge and Resin Liner (PO690095-01)	06/20/2020
		Shipment No. 21-02	LSA-II, Steel Liner (#680262-3) Filters and Bulk Dry Active Waste	05/11/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		Shipment No. 21-05	LSA-II, Dry Active Waste (Trash) in a 20-foot Sea/Land (ESUU200542)	07/20/2021
71152	Corrective Action Documents	CR-CNS-	2019-00860, 2019-01161, 2019-01166, 2019-01167, 2019-02947, 2019-02948, 2021-02439, 2021-03013, 2021-03257, 2021-03313, 2021-03346, 2021-03767	
	Corrective Action Documents Resulting from Inspection	CR-CNS-	2021-04378, 2021-04379, 2021-04385	
	Drawings		High Level Connectivity Diagram - Cyber Security Architecture	
	Fire Plans	Assessment-RFC-003	Reactor Feedwater Control Critical Digital Assets in the Turbine Building Corridor	1
	Miscellaneous		Cooper Nuclear Station Cyber Security Plan	2
		Assessment CDA-CPE-001-CPU2	Computer Room Control Network Firewall	10/19/2019
		Assessment CDA-PDN-002-NS	Network Switches	01/20/2021
		Assessment-CDA-CPE-001	Computer Process Equipment	5
		Assessment-CDA-TGC-002	Turbine Generator Control Critical Digital Assets (Computer Room)	0
	Procedures	11.CYBER-SECURITY	Cyber Security	15
		11.CYBER.01	Physical Security Guidance for Critical Digital Assets	5
		11.CYBER.03	Cyber Security Scope	1
		11.CYBER.07	Configuration Control of Critical Digital Assets	2
		11.CYBER.08	Security Impact Analysis	4
		11.CYBER.11	Cyber Security Vulnerability Management	5
		11.CYBER.15	Cyber Security Access Control	0
		11.CYBER.16	Audit and Accountability Procedure	5
		11.CYBER.18	Identification and Authentication	0
		11.CYBER.19	Systems and Communications Protection	1

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		11.CYBER.20	Supply Chain for Critical Digital Assets	2
		11.CYBER.21	Cyber Security Defense-in-Depth	2
71153	Corrective Action Documents	CR-CNS-	2020-03402, 2020-03628, 2020-03728, 2020-05668, 2021-00573	