



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, ILLINOIS 60532-4352

July 22, 2021

Mr. Joel P. Gebbie  
Senior VP and Chief Nuclear Officer  
Indiana Michigan Power Company  
Nuclear Generation Group  
One Cook Place  
Bridgman, MI 49106

SUBJECT: DONALD C. COOK NUCLEAR PLANT – INTEGRATED INSPECTION REPORT  
05000315/2021002 AND 05000316/2021002

Dear Mr. Gebbie:

On June 30, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Donald C. Cook Nuclear Plant. On July 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.

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

A licensee-identified violation which was determined to be of very low safety significance 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.

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 III; the Director, Office of Enforcement; and the NRC Resident Inspector at Donald C. Cook Nuclear Plant.

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,

***/RA/***

Néstor J. Félix Adorno, Chief  
Branch 4  
Division of Reactor Projects

Docket Nos. 05000315 and 05000316  
License Nos. DPR-58 and DPR-74

Enclosure:  
As stated

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Letter to Joel P. Gebbie from Néstor Félix Adorno dated July 22, 2021.

SUBJECT: DONALD C. COOK NUCLEAR PLANT – INTEGRATED INSPECTION REPORT  
05000315/2021002 AND 05000316/2021002

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

Docket Numbers: 05000315 and 05000316

License Numbers: DPR-58 and DPR-74

Report Numbers: 05000315/2021002 and 05000316/2021002

Enterprise Identifier: I-2021-002-0083

Licensee: Indiana Michigan Power Company

Facility: Donald C. Cook Nuclear Plant

Location: Bridgman, MI

Inspection Dates: April 01, 2021 to June 30, 2021

Inspectors: S. Bell, Health Physicist  
B. Bergeon, Operations Engineer  
J. Corujo-Sandin, Senior Reactor Inspector  
E. Fernandez, Reactor Inspector  
J. Mancuso, Resident Inspector  
C. St. Peters, Resident Inspector  
P. Zurawski, Senior Resident Inspector

Approved By: Néstor J. Félix Adorno, Chief  
Branch 4  
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 Donald C. Cook Nuclear Plant, 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. A licensee-identified non-cited violation is documented in report section: 71111.08P.

### **List of Findings and Violations**

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

### **Additional Tracking Items**

None.

## PLANT STATUS

Unit 1 and Unit 2 began the inspection period at rated thermal power. Unit 1 remained at full power throughout the period. On April 17, 2021, Unit 2 was shutdown for a scheduled refueling outage and returned to full power on May 24, 2021. On June 22, 2021, Unit 2 had an unplanned shutdown to Mode 3 due to a steam leak related to the main turbine. Repairs were in progress at the end 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 onsite activities, resident inspectors conducted plant status activities as described in IMC 2515, Appendix D; 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

### 71111.01 - Adverse Weather Protection

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

- (1) The inspectors evaluated summer readiness of offsite and alternate alternating current (AC) power systems on May 18, 2021.

#### 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 after the National Oceanic and Atmospheric Administration issued a seiche and meteotsunami notice on June 21, 2021.

#### 71111.04 - Equipment Alignment

##### Partial Walkdown Sample (IP Section 03.01) (3 Samples)

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

- (1) 2CD Emergency Diesel Generator (EDG) with 2AB EDG inoperable on April 22, 2021
- (2) Unit 1 Essential Service Water (ESW) during Unit 2 outage maintenance on April 28, 2021
- (3) Unit 2 AB EDG during electrical work on May 25, 2021

#### 71111.05 - Fire Protection

##### Fire Area Walkdown and Inspection Sample (IP Section 03.01) (4 Samples)

The inspectors evaluated the implementation of the fire protection program by conducting a walkdown and performing a review to verify program compliance, equipment functionality, material condition, and operational readiness of the following fire areas:

- (1) Fire Zone 47A; 4kV AB Switchgear Room, Unit 2, Elevation 609'-6" on May 18, 2021
- (2) Fire Zone 47B; 4kV CD Switchgear Room, Unit 2, Elevation 609'-6" on May 18, 2021
- (3) Fire Zone 46D; Emergency Power System AB Battery Room, Elevation 609'-6" on May 18, 2021
- (4) Fire Zone 60; Switchgear Room Cable Vault, Unit 2, Elevation 625'-10" on May 18, 2021

#### 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) ESW System on June 4, 2021

#### 71111.07A - Heat Sink Performance

##### Annual Review (IP Section 03.01) (1 Sample)

The inspectors evaluated readiness and performance of:

- (1) 2-OHP-5030-19-002E; Unit 2 East Component Cooling Water (CCW) flow test on April 6, 2021

#### 71111.08P - Inservice Inspection Activities (PWR)

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

- (1) The inspectors verified the reactor coolant system boundary, steam generator tubes, reactor vessel internals, risk significant piping system boundaries, and containment

boundary were appropriately monitored for degradation and that repairs and replacements were appropriately fabricated, examined and accepted by reviewing the following activities from April 26th, 2021 to May 7th, 2021:

03.01.a – Nondestructive Examination and Welding Activities.

- Ultrasonic (UT) examination of 384 lower support column bolts for the Unit 2 Reactor Vessel
- Liquid Penetrant (PT) examination of 2:1 Socket welds on Charging Pump equalizing lines, Component ID 2-PP-50E
- Work Order (WO) 55550041-01, Modify Socket Welds to 2:1 on Charging Pump equalizing lines, Component ID 2-PP-50E

03.01.b – Pressurized-Water Reactor Vessel Upper Head Penetration Examination Activities

- Bare Metal Visuals (VE) of 58 Reactor Vessel Head Penetrations

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

- AR 2020-6342; Boric Acid Leak on 2-CS-353 East Charging Pump PP-50E discharge vent valve
- AR 2020-0926; Boric Acid Leak on 2-CS-623E Seal Line Vent Valve
- AR 2020-0927; Boric Acid Leak on 2CS-312E East Charging Pump PP-50E drain shutoff valve

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (2 Samples)

- (1) The inspectors observed and evaluated licensed operator performance in the Control Room during a Unit 2 downpower to 50 percent Main Steam Safety Valve testing on April 15, 2021
- (2) The inspectors observed and evaluated licensed operator performance in the Control Room during Unit 2 shutdown for Refueling Outage (RFO) U2C26 on April 16, 2021

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

- (1) The inspectors observed and evaluated licensed operator requalification training during as-found scenarios in the simulator on June 14 and June 16, 2021

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (2 Samples)

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

- (1) Unit 2 Containment a(1) plan on May 27, 2021
- (2) Unit 2 Non-Essential Service Water a(1) plan on June 15, 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) Unit 2 reactor vessel head removal (heavy lift) on April 21, 2021
- (2) Unit 1 online risk and Unit 2 outage risk due to significant outage maintenance on April 26, 2021
- (3) Unit 2 risk management during reduced inventory on May 12, 2021
- (4) Unit 2 risk management during scheduled Auxiliary Feedwater (AFW) work on May 25, 2021

### 71111.18 - Plant Modifications

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

The inspectors evaluated the following temporary or permanent modifications:

- (1) Engineering Change (EC) 57999; Reactor Coolant (RC) Support Coolers Closed Cooling Water Return Train A Containment Isolation Valve on May 13, 2021
- (2) EC-56679; Replace RC Normal Letdown Train A Shutoff Valve QRV-111 Open and Closed Limit Switches on June 1, 2021

### 71111.19 - Post-Maintenance Testing

#### Post-Maintenance Test Sample (IP Section 03.01) (5 Samples)

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

- (1) 2-PP-50E; East centrifugal charging pump as set forth in WO 55550041-04 on May 10, 2021
- (2) 2-NRV-164; RC Loop #4 to Pressurizer Spray Control Valve as set forth in WO 55552476-04 on May 11, 2021
- (3) 2-FRV-255; 2-PP-3E; East Motor Driven Auxiliary Feedwater (AFW) Pump Test as set forth in WO 55557861-02 on May 18, 2021
- (4) 2-PP-10E; East Closed Cooling Water Pump PMT-Operability Test as set forth in WO 555549546-29 on May 19, 2021
- (5) 2-IMO-325; West Residual Heat Removal (RHR) and Safety Injection (SI) to Reactor Coolant System (RCS) Loops 2 & 3 Hot Legs Shutoff as set forth in WO 55496732-02 on May 20, 2021

71111.20 - Refueling and Other Outage Activities

Refueling/Other Outage Sample (IP Section 03.01) (1 Sample 1 Partial)

- (1) The inspectors evaluated Unit 2 RFO U2C26 activities from April 17 to May 25, 2021.
- (2) (Partial) The inspectors evaluated activities resulting from the Unit 2 unplanned manual reactor trip due to the 'B' Main Steam Crossover Pipe large steam leak from June 23, 2021 through the end of the inspection period.

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Surveillance Tests (other) (IP Section 03.01) (2 Samples)

- (1) Unit 2 Main Steam Safety Valve testing on April 16, 2021
- (2) Unit 2 Turbine Driven AFW Pump on May 18, 2021

Ice Condenser Testing (IP Section 03.01) (1 Sample)

- (1) Ice Condenser basket weighing on April 5, 2021

71114.06 - Drill Evaluation

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

- (1) EPS-S-19EE; 2019 Evaluated Exercise on June 3, 2021

**RADIATION SAFETY**

71124.01 - Radiological Hazard Assessment and Exposure Controls

Radiological Hazard Assessment (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated how the licensee identifies the magnitude and extent of radiation levels and the concentrations and quantities of radioactive materials and how the licensee assesses radiological hazards.

### Instructions to Workers (IP Section 03.02) (1 Sample)

The inspectors evaluated instructions to workers including radiation work permits (RWPs) used to access high radiation areas.

- (1) The inspectors reviewed the following:

#### Radiation Work Packages

- RWP 212102, U2C26 Reactor Reassembly Activities, Revisions 0 and 1
- RWP 212151, U2C26 RCP Maintenance Setup and Support, Revision 0
- RWP 212128, U2C26 Valve Activities in the Auxiliary Building, Containment, and Plant Radiologically Controlled Areas (RCA), Revision 0

#### Electronic Alarming Dosimeter Alarms

- Dosimeter dose rate alarm which occurred on April 25, 2021 at 0235 hours
- Dosimeter dose rate alarm which occurred on April 21, 2021 at 1640 hours
- Dosimeter dose rate alarm which occurred on April 25, 2021 at 1632 hours

#### Labeling of Containers

- Containers located at the exit to the Unit 2 lower containment access during the U2C26 refueling outage

### Contamination and Radioactive Material Control (IP Section 03.03) (3 Samples)

The inspectors evaluated licensee processes for monitoring and controlling contamination and radioactive material.

- (1) Observed workers exiting the RCA at the Turbine Building Access Facility during the Unit 2 U2C26 refueling outage
- (2) Evaluated the radiological controls associated with the contents of the spent fuel pool
- (3) Observed the posting and labels for the temporary Radioactive Material Storage Facility located with the protected area during the Unit 2 U2C26 refueling outage

### Radiological Hazards Control and Work Coverage (IP Section 03.04) (3 Samples)

The inspectors evaluated in-plant radiological conditions during facility walkdowns and observation of radiological work activities.

- (1) The inspectors observed work associated with radiography in the Unit 2 Turbine Building Elevation 591' performed under RWP 212130
- (2) The inspectors observed work associated with valve repair in the Auxiliary Building performed under RWP 212128
- (3) The inspectors observed work associated with the number 4 reactor coolant pump located in the Unit 2 containment with performed under RWP 212151

High Radiation Area and Very High Radiation Area Controls (IP Section 03.05) (2 Samples)

The inspectors evaluated licensee controls of the following High Radiation Areas and Very High Radiation Areas:

- (1) Unit 2 Containment Reactor Pit
- (2) Auxiliary Building 587' Unit 2 RC/Seal Filter Rooms

Radiation Worker Performance and Radiation Protection Technician Proficiency (IP Section 03.06) (1 Sample)

- (1) The inspectors evaluated radiation worker and radiation protection technician performance as it pertains to radiation protection requirements

71124.02 - Occupational ALARA Planning and Controls

Radiation Worker Performance (IP Section 03.04) (1 Sample)

The inspectors evaluated radiation worker and radiation protection technician performance during:

- (1) Unit 2 RCP Number 4 seal inspection and other activities conducted in Unit 2 lower containment during the Unit 2 refueling outage

71124.03 - In-Plant Airborne Radioactivity Control and Mitigation

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

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

- (1) Systems located on the 612' and 598' of the Unit 2 Containment Building during the U2C26 refueling outage

71124.05 - Radiation Monitoring Instrumentation

Walkdowns and Observations (IP Section 03.01) (5 Samples)

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

- (1) Portable ion chambers and friskers available for use in the Auxiliary Building
- (2) Hopewell Designs instrument calibrator located in the Auxiliary Building
- (3) Gamma spectroscopy systems located at the RCA exit and Administration Building
- (4) JL Shepherd Model 89 instrument calibrator located in the RP Calibration Facility
- (5) Non-portable radiation monitoring equipment located at the RCA Exit

Calibration and Testing Program (IP Section 03.02) (12 Samples)

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

- (1) Eberline RO20, SN 12678
- (2) Unit 1, Train A, Containment Radiation Area Monitor; 1VRA-1310
- (3) Unit 2, Train A, Containment Radiation Area Monitor; 2VRA-2310
- (4) Canberra Argos-5, Personnel Monitor, SN 11
- (5) Canberra GEM-5, Portal Monitor, SN 3
- (6) Eberline ESP/HP270, Radiation Dose Rate Instrument, SN 1137
- (7) Thermo Scientific SAM-12, Small Article Monitor, SN 148
- (8) MGP Telepole, Radiation Dose Rate Instrument, SN 169
- (9) Hopewell Designs Model BX-3 Instrument Calibrator, SN 0615-4127
- (10) JL Shepherd Model 89 Instrument Calibrator, SN 1
- (11) Thermo Scientific AMS4, Continuous Air Monitor, SN 579
- (12) Ortec Fastscan Whole Body Counter, SN FS-1

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) Unit 2, Steam Generator Blowdown Radiation Detector; 2 DRA-300-DET
- (2) Unit 1, Auxiliary Building Vent Radiation Monitor; 1VRS-1500

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

Shipment Preparation (IP Section 03.04) (1 Sample)

The inspectors observed the preparation of the following activities:

- (1) Radioactive waste shipment DCC21-030; consisting of dry active waste in a shielded transport cask

**OTHER ACTIVITIES – BASELINE**

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

MS07: High Pressure Injection Systems (IP Section 03.06) (2 Samples)

- (1) Unit 1 (October 1, 2020 – March 31, 2021)
- (2) Unit 2 (October 1, 2020 – March 31, 2021)

MS10: Cooling Water Support Systems (IP Section 03.09) (2 Samples)

- (1) Unit 1 (July 1, 2020 – March 31, 2021)
- (2) Unit 2 (July 1, 2020 – March 31, 2021)

BI01: Reactor Coolant System (RCS) Specific Activity Sample (IP Section 03.10) (2 Samples)

- (1) Unit 1 (October 1, 2020 through March 31, 2021)
- (2) Unit 2 (October 1, 2020 through March 31, 2021)

PR01: Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual  
Radiological Effluent Occurrences (RETS/ODCM) Radiological Effluent Occurrences Sample  
(IP Section 03.16) (1 Sample)

- (1) April 1, 2020 through March 31, 2021

71152 - Problem Identification and Resolution

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

- (1) The inspectors reviewed the licensee's corrective action program for potential adverse trends in Human Performance that might be indicative of a more significant safety issue on June 14, 2021.

## INSPECTION RESULTS

Licensee-Identified Non-Cited Violation	71111.08P
This violation of very low safety significance was identified by the licensee and has been entered into the licensee corrective action program and is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.	
<p>Violation: Title 10 CFR 50.55a(b)(2)(xx)(B) stated, in part, “The nondestructive examination method and acceptance criteria of the 1992 Edition or later of Section III shall be met when performing system leakage tests (in lieu of a hydrostatic test) in accordance with IWA–4520 after repair and replacement activities performed by welding or brazing on a pressure retaining boundary using the 2003 Addenda through the latest edition and addenda of Section XI incorporated by reference in paragraph (a)(1)(ii) of this section.” Paragraph (a)(1)(ii) of this section included the 2013 Edition of ASME Section XI. ASME Section III ND-5222 further stated “circumferential welded joints in piping, pumps, and valves greater than NPS 2 (DN 50) shall be examined by either the magnetic particle, liquid penetrant, or radiographic methods.”</p> <p>Contrary to the above, on February 9, 2021, the licensee failed to meet the nondestructive examination methodology of the 1992 Edition or later of ASME Section III when performing system leakage tests (in lieu of a hydrostatic test) on a pressure retaining boundary after it was repaired/replaced by welding using the 2013 Edition of ASME Section XI. Specifically, the licensee repaired/replaced a portion of the piping downstream of the Unit 1 ESW pump (i.e., component 1-WRV-766) and conducted a system leakage test in lieu of a hydrostatic test of the slip-on flange (a pressure retaining boundary). However, the licensee did not examine the associated circumferential welded piping joints by either magnetic particle, liquid penetrant, or radiographic methods as required by ASME Section III ND-5222.</p> <p>Significance/Severity: Green. The inspectors assessed the significance of the finding using Inspection Manual Chapter (IMC) 0609, Attachment 4, “Initial Characterization of Findings,” dated December 20, 2019, and IMC 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” dated January 1, 2021. Using Exhibit 2, “Mitigating Systems Screening Questions,” the inspectors determined that the finding was of very low safety significance (i.e., Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, the licensee performed an operability determination which reasonably concluded the Unit 1 essential service water system reasonably remained operable.</p>	

## EXIT MEETINGS AND DEBRIEFS

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

- On July 6, 2021, the inspectors presented the integrated inspection results to Mr. J. Gebbie, Senior Vice President, and other members of the licensee staff.
- On May 3, 2021, the inspectors presented the radiation protection baseline inspection results to Mr. J. Gebbie, Senior Vice President, and other members of the licensee staff.
- On May 7, 2021, the inspectors presented the in-service baseline inspection results to Mr. J. Gebbie, Senior Vice President, and other members of the licensee staff.
- On May 27, 2021, the inspectors presented the radiation protection baseline inspection results to Mr. J. Gebbie, Senior Vice President, and other members of the licensee staff.

## DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Procedures	12-OHP-4022-001-010	Severe Weather	022
		12-OHP-4022-009	Seiche	8
		PMP-5055-SWM-001	Severe Weather Guidelines	010
	Self-Assessments	PMP-5091-FLD-001	Flood Protection Program Implementation	8
71111.04	Drawings	OP-2-5151D-69	Flow Diagram Emergency Diesel Generator "CD" Unit No. 2	69
	Procedures	12-OHP-4021-019-001	Operation of the ESW System	74
		2-OHP-4021-032-008CD	Operating DG2CD Subsystems	35
		2-OHP-4021-032-008CD	Operating DG2CD Subsystems	033
71111.05	Fire Plans	Fire Zone 46D	E.P.S. AB Battery Room Unit 2, Elevation 609'-6"	38
		Fire Zone 47A	4Kv AB Switchgear Room Unit 2, Elevation 609'-6"	38
		Fire Zone 47B	4Kv CD Switchgear Room Unit 2, Elevation 069'-6"	38
		Fire Zone 60	Switchgear Room Cable Vault Unit 2 Elev. 625'-10"	38
71111.06	Calculations	MD-12-CW-005	Flooding due to Circulating Water Expansion Joint Failure	2
		MD-12-FLOOD-19-N	Mitigating Strategies Assessment for Flooding	1
		PRA-FLOOD-014	Flood Detailed Analysis	0
71111.07A	Procedures	2-OHP-5030-019-002E	East Essential Service Water System Flush and Flow Test	12
71111.08P	Corrective Action Documents	AR 2021-3339	AEP Welding Manual NDE Table Issue	04/21/2021
		AR 2021-3703	U2C26 Lower Support Column Bolt UT Results	04/29/2021
	Engineering Changes	EC-0000057737	Use 2 to 1 Taper Fillet Welds on Unit 2 Charging Pump Balance Lines	00
	NDE Reports	55550041-01	Liquid Penetrant Exam of 2 to 1 Socket Welds on Charging Pump Balance Lines	04/29/2021
		U2-VT-21-003	Bare Metal Visuals of Reactor Vessel Head Penetrations	05/04/2021



Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Procedures	12-QHP-5050-NDE-001	Liquid Penetrant Examination	011
		12-QHP-5050-NDE-002	Magnetic Particle Examination	008
		12-QHP-5050-NDE-005	Visual Weld and Brazing Examination	6
		12-QHP-5050-NDE-010	Radiographic Examination of Welds	007
		WDI-STD-1176	Procedure for the Ultrasonic Inspection of Lower Support Column Bolts in Westinghouse 4-Loop Original Downflow Reactors	0
		WPS 1.2TS	Welding Procedure for P1 to P1	07
		WPS 8.1TS	Welding procedure for P8 to P8	06
71111.11A	Miscellaneous	DIT-S-06386-00	Design Information Transmittal: Unit 2 Cycle 25, End-of-Cycle (EOC) Time-to-Boil Information	03/03/2021
71111.11Q	Miscellaneous		U2C26 MSSV Setpoint Trevi Testing (Pre-Outage)	0
		Design Information Transmittal DIT-S-06386-00	Unit 2 Cycle 25, End-of-Cycle (EOC) Time-to-Boil Information	03/03/2021
		Design Information Transmittal DIT-S-06387-00	Unit 2 Cycle 26 Beginning-of-Cycle (BOC) Time-to-Boil Information	03/02/2021
		DIT-S-06387-00	Design Information Transmittal: Unit 2 Cycle 26, Beginning-of-Cycle (BOC) Time-to-Boil Information	03/02/2021
		R-S-4602-U1-T1	Period 4602 U1 Training Scenario 1	0
		RQ-E-4602-U2-A	Period 4602 As-Found Simulator Evaluation Unit 2 Primary	0
	Procedures	12-EHP-4030-051-256	Main Steam Safety Valve Setpoint Verification with Lift Assist Device	024
	12-OHP-4023-E-0	Emergency Operating Procedures	47	
	2-OHP-4021-001-003	Power Reduction	059	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		RQ-E-4602-U2-A	Period 4602 As-Found Simulator Evaluation Unit 2 Primary	0
		RQ-S-4602-U1-T1	Period 4602 U1 Training Scenario 1	0
71111.12	Corrective Action Documents	2019-7047	Received Ann 204 Drop 13 South NESW PP Strainer DP High	07/21/2019
		2020-5641	2-NLI-320 CNTMT Water Level Indicator has Erratic Indications	07/15/2020
	Miscellaneous		(a)(1) Action Plan, Unit 2 Containment, 2-NLI-320, Lower Containment Train 'B' Water Level Indicator Transmitter	02/16/2021
			(a)(1) Action Plan, Unit 2 Non-Essential Service Water	02/03/2020
71111.13	Miscellaneous		Unit 1 & 2 Cycle 118, Week 04 Risk	0
			Risk Evaluation Plan	05/12/2021
			Risk Evaluation Plan	05/25/2021
	Procedures	12-MHP-4050-FHP-001	Refueling Procedure Guidelines	009
		12-MHP-4050-FHP-023	Reactor Vessel Head Removal with Fuel in the Vessel	002
		12-MHP-4050-FHP-034	Reactor Vessel Head Installation with Fuel in the Vessel	2
		PMP-4050-CHL-001	Control of Heavy Loads	016
		PMP-5020-MHP-001	Lifting and Rigging Program	046
	71111.18	Engineering Changes	EC-0000056679	2-33-QRV-111-OP/2-33-QRV-111CL/CVCS/Replace Reactor Coolant Normal Letdown Train'A' Shutoff Valve QRV-111 Open Limit Switch and Close Limit Switch
EC-0000057999			Anti-Rotation Coupling for Valve Actuator 2-CCR-456-ACT	03/31/2021
71111.19	Miscellaneous	OHI-4016	Conduct of Operations Data Sheet 3, IST Valve Operability After Maintenance	58
	Procedures	2-OHP-4021-003-001	Letdown, Charging, and Sealwater Operation	68
		2-OHP-4030-208-053B	ECCS Valve Operability Test Train B	34
		2-OHP-4030-216-	East Component Cooling Water Loop Surveillance Test	37

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		20E	(Attachment 1)	
		2-OHP-4030-234-033	IST Valve Operability Test - Cold Shutdown; Attachment 3 (CCW to/from Reactor Support Coolers IST Valve Testing - Cold Shutdown)	14
		2-OHP-4080-256-017E	East Motor Driven Feedwater System Test	17
	Work Orders	55357861-02	2-FRV-255, East Motor Driven Auxiliary Feedwater Pump Stroke for PMT	05/07/2021
		55496732-02	2-IMO-325, West RHR Hx and South SI Pump to RC Loops 2 & 3 Hot Legs	05/04/2021
		55516277-05	2-CCR-456, IST/PMT Stroke	05/10/2021
		55549546-29	2-PP-10E East CCW Pump Perform Operability/PMT	05/08/2021
		55552476-04	2-PP-50E, East Component Cooling Pump Perform Operability/PMT	05/08/2021
		55552476-04	2-NRV-164, Reactor Coolant Loop #4 to Pressurizer Spray Control Valve	05/06/2021
	71111.20	Corrective Action Documents	AR 2021-5596	Unit 2 Manual Reactor Trip
Drawings		DC-16722	48" Nominal Diameter Universal Expansion Joint Sub-Assembly	2
Miscellaneous			Support/Refute Matrix - Why did Liner Fail on 2-XJ-113-5	0
			Sammons to Parikh Email RE: Engineering Report	06/25/2021
		SD-070405	Analysis of Postulated Reactor Head Load Drop onto the Reactor Vessel Flange	1
Procedures		12-EHP-4030-002-316	Subcritical Physics Test and ITC Measurement	16
		12-EHP-4030-002-356	Low Power Physics Tests with Dynamic Rod Worth Measurement	18
		12-EHP-4050-FHP-301	Reload-No-N32	0
		12-EHP-4050-FHP-301	Fuel Sequence Development	22
		12-MHP-4050-FHP-005	Core Unload/Reload and Incore Shuffle	8

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		12-MHP-4050-FHP-023	Reactor Vessel Head Removal with Fuel in the Vessel	002
		2-OHP-4021-001-002	Reactor Start-Up	68
		2-OHP-4021-001-006	Power Escalation	71
		PMP-2060-WHL-001	Work Hour Limitation and Fatigue Management (UZRZ6; Various Individuals)	Various Dates
71111.22	Procedures	1-OHP-4030-156-017E	East Motor Driven Auxiliary Feedwater System Test	20
		12-MHP-4030-010-001	Ice Condenser Basket Weighing Surveillance	27
		2-OHP-4030-256-017T	Turbine Driven Auxiliary Feedwater System Test	35
		VTD-TREV-0001	Trevitest (Owned by Furmanite) Operations Manual for Setting Safety and Relief Valves	0
71114.06	Miscellaneous		2021 June 2, 2021 Training Drill Team 1 Scenario Manual	0
	Procedures	EP-S-19EE	2019 Evaluated Exercise	1
71124.01	Corrective Action Documents	AR 2020-10218	Contaminated Material Bags Opened in a Non-Contaminated Area	12/15/2020
		AR 2020-3134	RP Needs to have Procedures to Operate RMS Rad Monitors	04/08/2020
		AR 2021-1606	Contamination Found in Clean Areas	02/18/2021
		AR 2021-2097	Wrong RWP Task Assigned to Demin Sluice	03/07/2021
		AR 2021-3503	Worker Unable to Pass PCM	04/25/2021
		AR 2021-3604	Radiological Survey's Final Review not Timely	04/27/2021
	Miscellaneous		Radiography Shot Plan Unit 2 MDA FP 591'	04/28/2021
	Procedures	12-THP-6010-RPP-206	Internal Dose Assessment and Calculation	16
		12-THP-6010-RPP-401	Performance of Radiation and Contamination Surveys	47
		PMP-6010-RPP-006	Radiation Work Permit Program	27
Radiation		2021-192	Radiological Air Sample Survey of RCP#4 Seal Work	04/28/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Surveys	2021-193	Radiological Air Sample Survey of RHR Hz Breach of 2-IMO-340	04/28/2021
		SW-VSDS-M-20210420-15	Radiological Survey of U2 TECSA Seal Breach	04/20/2021
		SW-VSDS-M-20210425-15	Radiological Survey of U2 Reactor Head Pre-Job for CO2 Cleaning	04/25/2021
		SW-VSDS-M-20210426-17	Radiological Survey of RCP#4 Seal Work	04/26/2021
		SW-VSDS-M-20210427-17	Radiological Survey of Breach of 2-IMO-350	04/29/2021
	Radiation Work Permits (RWPs)	212102	U2C26 Reactor Reassembly Process	0, 1
		212128	U2C26 Valve Activities in the Auxiliary Building, Containment, and Plant Radiologically Controlled Areas (RCAs)	0
		212130	U2C26 Perform Radiography in Auxiliary Building, Containment, Turbine Buildings, and Plant Radiologically Controlled Areas (RCAs)	0
		212151	U2C26 RCP #4 Maintenance Setup and Support	0
	71124.02	Procedures	PMP-6010-ALA-001	ALARA Program - Review of Plant Work Activities
71124.05	Calibration Records		Eberline RO20 Calibration; Serial Number 12678	05/26/2021
			Canberra Argos-5, Personnel Monitor, Serial Number 11	02/04/2021
			Canberra GEM-5 Portal Monitor, Serial Number 3	11/10/2021
			Eberline ESP-HP270 Radiation Dose Rate Instrument, Serial Number 1137	01/01/2021
			Bicron T50 Radiation Dose Rate Instrument, Serial Number 304	03/08/2021
			Thermo Scientific SAM-12 Small Article Monitor, Serial Number 148	06/10/2020
			MGP Telepole Radiation Dose Rate Instrument, Serial Number 169	05/03/2021
			JL Shepherd Model 89 Characterization and Validation, Serial Number 1	11/04/2020
	Thermo Scientific AMS4 Continuous Air Monitor, Serial	11/22/2020		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Number 579	
			Ortec Fastscan Whole Body Counter, Serial Number FS-1	07/28/2020
			Unit 1 Auxiliary Building Vent Radiation Monitor	11/18/2020
		1-0014-03453	Hopewell Designs Model BX3 Instrument Calibrator Serial Number 0615-4127	11/19/2020
		55532682-01	1VRA-1310, Unit 1 Train A Containment Radiation Area Monitor	05/06/2020
		55536961-01	2VRA-2310, Unit 2, Train A Containment Radiation Area Monitor	08/24/2020
		55549407-09	Unit 2 Steam Generator Blowdown Radiation Detector; 2 DRA-300-DET	12/14/2020
	Corrective Action Documents	2019-10885	Electrometer is not Available to Certify Sources	11/04/2019
		2019-11319	Use History Analysis for RO20-352 Failing as Found Data	11/12/2019
		2020-4813	UHA, RP Sample Counter Failed as Found Calibration	06/11/2020
		2020-5175	Beta Only Count on WPC does not Meet Minimum Time Requirements	06/25/2020
		2020-5182	Argos-5 Went Past Cal Due Date	06/25/2020
		2020-7456	Use History Analysis for TP-038 Failing as Found Data	09/20/2020
	Procedures	12-THP-6010-RPC-517	Calibration of Portable Dose Rate Instruments	6
		12-THP-6010-RPI-510	Use of the Calibration Facility and Satellite Facilities	5
71124.08	Work Orders	55547642-01	Radiation Protection Radioactive Source Leak Tests	11/17/2020
71151	Miscellaneous		U1 and U2 Reactor Coolant System Dose Equivalent Determinations, October 1, 2020 through March 31, 2021	Various
			Radiation Effluent Dose Summary Reports, April 1, 2020 through March 31, 2021	Various
			MSPI Deviation Report — MSPI High Pressure Systems (10/01/2020 – 03/31/2021) — Unit 1	0
			MSPI Deviation Report — MSPI High Pressure Systems (10/01/2020 – 03/31/2021) — Unit 2	0
			MSPI Deviation Report — MSPI Cooling Water Systems (10/01/2020 – 03/31/2021) — Unit 1	0
			MSPI Deviation Report — MSPI Cooling Water Systems	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			(10/01/2020 – 03/31/2021) — Unit 2	
			Operational Narrative Logs (January 2021 - June 2021)	0
71152	Corrective Action Documents		ARs Generated January 2021 - June 2021	0
		AR 2016-7865	U2 B Right MSR Joint Failure	0
		AR 2021-5596	Unit 2 had a Manual Reactor Trip at 23:31 due to a Steam Leak on the Right Moisture Separator Reheater	0