



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

May 7, 2019

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 GENERATING PLANT, UNITS 1 AND 2—NRC  
INTEGRATED INSPECTION REPORT 05000315/2019001 AND  
05000316/2019001

Dear Mr. Gebbie:

On March 31, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Donald C. Cook Nuclear Generating Plant, Units 1 and 2. On May 2, 2019, 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.

The inspectors documented a licensee-identified violation which was determined to be Severity Level IV in this report. Because the licensee has initiated actions within their corrective action program to address this issue, the NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2.a of the Enforcement Policy. The NCV is described in the subject inspection report.

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 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

*/RA/*

Eric Duncan, Chief  
Branch 4  
Division of Reactor Projects

Docket Nos.: 05000315; 05000316  
License Nos.: DPR-58; DPR-74

Enclosure:  
IR 05000315/2019001; 05000316/2019001

cc: Distribution via LISTSERV®

Letter to Joel Gebbie from Eric Duncan date May 7, 2019

SUBJECT: DONALD C. COOK NUCLEAR GENERATING PLANT, UNITS 1 AND 2—NRC  
INTEGRATED INSPECTION REPORT 05000315/2019001 AND  
05000316/2019001

DISTRIBUTION:

Michael McCoppin  
RidsNrrDorlLpl3  
RidsNrrPMDCCook Resource  
RidsNrrDirslrib Resource  
Darrell Roberts  
John Giessner  
Jamnes Cameron  
Allan Barker  
DRPIII  
DRSIII  
[ROPreports.Resource@nrc.gov](mailto:ROPreports.Resource@nrc.gov)

ADAMS ACCESSION NUMBER: ML19127A322

<input checked="" type="checkbox"/> SUNSI Review Complete By: Eric Duncan		ADAMS <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	<input checked="" type="checkbox"/> Non- Sensitive <input type="checkbox"/> Sensitive	Keyword: NRC-002
OFFICE	RIII				
NAME	EDuncan:bw				
SIGNATURE	<i>/RA/</i>				
DATE	5/7/2019				

**OFFICIAL RECORD COPY**

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

Docket Numbers: 05000315 and 05000316

License Numbers: DPR-58 and DPR-74

Report Numbers: 05000315/2019001 and 05000316/2019001

Enterprise Identifier: I-2019-001-0063

Licensee: Indiana Michigan Power Co.

Facility: Donald C. Cook Nuclear Generating Plant, Units 1 and 2

Location: Bridgman, MI

Inspection Dates: January 01, 2019 to March 31, 2019

Inspectors: J. Ellegood, Senior Resident Inspector  
E. Fernandez, Reactor Inspector  
T. Go, Health Physicist  
P. Laflamme, Senior Resident Inspector  
J. Mancuso, Resident Inspector

Approved By: Eric Duncan, Chief  
Branch 4  
Division of Reactor Projects

## **SUMMARY**

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a quarterly inspection at the Donald C. Cook Nuclear Generating Plant, Units 1 and 2 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. Findings and violations being considered in the NRC's assessment are summarized in the table below. Licensee-identified non-cited violations are documented in report sections: 71153.

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

No findings or violations were identified.

### **Additional Tracking Items**

None.

## PLANT STATUS

Unit 1 began the inspection period at rated thermal power. On February 15, the unit began coast down and on March 6, Unit 1 shutdown for a refueling outage. Unit 1 remained shutdown for the remainder of the inspection period.

Unit 2 operated at or near rated thermal power for the entire 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 plant status activities described in IMC 2515 Appendix D, "Plant Status" and conducted routine reviews using IP 71152, "Problem Identification and Resolution." 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

#### Impending Severe Weather Sample (IP Section 03.03) (2 Samples)

- (1) The inspectors evaluated the licensee's readiness for high winds on January 8, 2019
- (2) The inspectors evaluated the licensee's readiness for extreme cold and heavy snow on January 29, 2019

### 71111.04 - Equipment Alignment

#### Partial Walkdown (IP Section 02.01) (2 Samples)

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

- (1) Unit 1 East Centrifugal Charging Pump on January 23, 2019
- (2) Unit 2 West Essential Service Water (ESW) System on February 22, 2019

### 71111.05A - Fire Protection (Annual)

#### Annual Inspection (IP Section 03.02) (1 Partial)

The inspectors evaluated fire brigade performance on February 12, 2019

## 71111.05Q - Fire Protection

### Quarterly Inspection (IP Section 03.01) (4 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas:

- (1) Auxiliary Building 609' Elevation South on February 8, 2019
- (2) Unit 2 Cable Penetration Tunnel, 612' Elevation on February 8, 2019
- (3) Unit 1 Control Room Heating, Ventilation and Air Conditioning (HVAC) on February 28, 2019
- (4) Unit 2 Control Room HVAC on February 28, 2019

## 71111.08P - Inservice Inspection Activities

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

The inspectors verified that 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 March 11 to March 20, 2019:

#### 03.01.a - Nondestructive Examination and Welding Activities.

- Phased Array Ultrasonic Examination (PAUT) of Safety Injection to Reactor Coolant 10-inch Pipe-to-Elbow Weld, 1-SI-29-16S
- Phased Array Ultrasonic Examination (PAUT) of Safety Injection to Reactor Coolant 10-inch Elbow-to-Pipe Weld, 1-SI-29-17S
- Ultrasonic Examination (UT) of 6-inch Safety Injection Piping to Reactor Coolant Loop #2 Hot Leg Check Valve, 1-SI-158-L2
- U1-VE-17-038, ASME Section XI, Flaw Evaluation, Weld ID 1RH-4-01F
- Replace 3/4" Valve 1-NFP-230-V1 and Upstream Piping on Unit 1 Reactor Coolant System Cross Over Leg (WO 55456224-01)

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

- AR 2017-8732 Boric Acid Evaluation of 1-RH-134 Residual Heat Removal to Reactor Coolant Loop #3 Cold Leg Check Valve
- AR 2917-11983 Boric Acid Evaluation of 1-NS-622 Pressurizer Liquid Space Sample Shutoff Valve 1-NRV-102 Bypass Check Valve
- AR 2017-10417 Boric Acid Evaluation of 1-NFP-222 Reactor Coolant Loop #2 Cold Leg Channel III Reactor Protection Input Flow Transmitter
- AR 2017-9280 Boric Acid Evaluation of 1-NFP-222 Reactor Coolant Loop #4 Cold Leg Channel I Reactor Protection Input Flow Transmitter
- AR 2017-9183 Boric Acid Evaluation of 1-NFP-222-V2 Low Pressure Side Root Shutoff Valve

#### 71111.11A - Licensed Operator Requalification Program and Licensed Operator Performance

##### Requalification Examination Results (IP Section 03.03) (1 Sample)

The inspectors observed and evaluated licensed operator performance during requalification training in the simulator on February 6, 2019.

#### 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)

The inspectors observed and evaluated licensed operator performance in the control room during draining operations to reduced inventory on March 9, 2019.

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

The inspectors observed and evaluated licensed operator performance during requalification training in the simulator on February 6, 2019.

#### 71111.12 - Maintenance Effectiveness

##### Routine Maintenance Effectiveness Inspection (IP Section 02.01) (1 Sample)

The inspectors evaluated the effectiveness of routine maintenance activities associated with the following equipment and/or safety significant functions:

Unit 1 Main Steam System

#### 71111.13 - Maintenance Risk Assessments and Emergent Work Control

##### Risk Assessment and Management Sample (IP Section 03.01) (6 Samples)

The inspectors evaluated the risk assessments for the following planned and emergent work activities:

- (1) Unit 2 ESW and Residual Heat Removal (RHR) work windows during the January 7, 2019, work week
- (2) Preparations for heavy lifting activity on February 11, 2019
- (3) Emergent Unit 2 Emergency Diesel Generator (EDG) corrective maintenance during the February 18, 2019, work week
- (4) Unit 2 CD battery cell replacement on February 27, 2019
- (5) Elevated risk due to planned EDG maintenance while in reduced inventory on March 9, 2019
- (6) Elevated risk due to a dual train ESW outage on March 27, 2019



## 71111.15 - Operability Determinations and Functionality Assessments

### Operability Determinations and Functionality Assessments (IP Section 02.01) (5 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) Relief Valve Discharge Lines to Pressurizer Relief Tank (PRT) Not Analyzed for Accident Loads
- (2) Ice Bed Resistance Temperature Detectors (RTDs) Calibration Discrepancy
- (3) Foreign Material Found in Unit 2 CD Battery Cells
- (4) Unit 2 AB EDG Lube Oil System Pump Delayed Start
- (5) Unit 2 CD Battery with Low Individual Cell Voltage (ICV)

## 71111.19 - Post Maintenance Testing

### Post Maintenance Test Sample (IP Section 03.01) (1 Sample)

The inspectors evaluated the following post maintenance tests:

Plant Air Compressor Unloading Control as documented in Work Order (WO) 55498453

## 71111.20 - Refueling and Other Outage Activities

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

The inspectors evaluated Refueling Outage (RFO) 1U29 from March 6 through March 31. The outage spans two quarters; therefore this does not constitute a complete sample.

## 71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

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

Unit 1 Ice Condenser Basket Weighing on February 28, 2019

### Surveillance Testing (IP Section 03.01) (3 Samples)

- (1) Unit 2 Steam Generator Stop Valve Dump Valve Surveillance Test on January 24, 2019
- (2) Unit 2 Train B Solid State Protection System (SSPS) Automatic Trip and Actuation Logic Operation Test on February 19, 2019
- (3) Unit 1 Loss of Power (LOP)/Loss-of-Coolant-Accident (LOCA) Testing on March 8, 2019

## **RADIATION SAFETY**

### 71124.01 - Radiological Hazard Assessment and Exposure Controls

#### Contamination and Radioactive Material Control (IP Section 02.03) (1 Sample)

The inspectors evaluated licensee processes for monitoring and controlling contamination and radioactive material. The inspectors verified the following sealed sources were accounted for and were intact:

- Model C-161 Type 8; Atomic Energy of Canada; containing 744 curries (Ci) of Cesium-137 (Cs-137)
- Model 6810; 0272GY; J.L. Shepherd; containing 213 Ci of Cs-137
- Model 6810; 87Cs-S-46; J.L. Shepherd; containing 198 Ci of Cs-137
- ICN 571; M89-2; containing 0.4 Ci of Cs-137
- ICN 2358; RPAC Instrument Issue BX-3; containing 1.06 Ci of Cs-137

#### High Radiation Area and Very High Radiation Area Controls (IP Section 02.05) (1 Sample)

The inspectors evaluated risk-significant high radiation area and very high radiation area controls.

#### Instructions to Workers (IP Section 02.02) (1 Sample)

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

##### Radiation Work Permits

- RWP-19113; Unit 1 Refueling Cycle No. 29 (U1C29) Temporary Shielding Activities; Revision 0
- RWP-19115; U1C29 Reactor Baffle Bolt Inspection and Repair Activities to Include Lower Internal Movements; Revision 0
- RWP-191143; U1C29 Perform In-Service Inspection Activities in Containment; Revision 0
- RWP-191102; U1C29 Reactor Reassembly Activities; Revision 0
- RWP-191142; U1C29 Containment Install, Modify and Remove Scaffolds; Revision 0
- RWP-191145; U1C29 Valve Maintenance and Repair; Revision 0
- RWP-191160; U1C29 Instrument Room Seal Table Activities; Revision 0

##### Electronic Alarming Dosimeter Alarms

- No alarms occurred during the inspection period.

##### Labeling of Containers

- Containers inside a secured steam generator mausoleum within the Owner Controlled Area (OCA)
- Liners inside casks containing primary resin within the shielded area of the drumming room

- Radioactive bags containing hold down springs parts after cutting
- Bagged dry active waste (DAW) hot trash at the 650' Spent Fuel Pit area

Radiation Worker Performance and Radiation Protection Technician Proficiency (IP Section 02.06) (1 Sample)

The inspectors evaluated radiation worker performance and radiation protection technician proficiency.

Radiological Hazard Assessment (IP Section 02.01) (1 Sample)

The inspectors evaluated radiological hazards assessments and controls. The inspectors reviewed the following:

Radiological Surveys

- Spent Fuel Pit at 650'; Job coverage survey for cutting up of hold down spring
- Drumming Room Surveys 587'; High level radwaste storage
- Upper Containment 650'; Dose rate survey post cavity flood up
- Lower Containment/Annulus Areas; Dose rate survey
- Pressurizer and Walkway 621'-625'; Dose rate survey
- Annulus Quad at Lower Containment; Dose rate survey

Risk Significant Radiological Work Activities

- Unit 1 Temporary Shielding During Refueling Activities
- Unit 1 Reactor Baffle Bolt Inspection and Repair Activities to Include Lower Internal Movements
- Unit 1 Inservice Inspection Activities
- Unit 1 Reactor Reassembly Activities
- Unit 1 Valve Maintenance and Repair

Air Sample Survey Records

- Lower Containment/Annulus Areas; Dose rate survey (less than 0.3 Derived Air Concentration (DAC))
- Spent Fuel Pit at 650'; Job coverage survey for cutting up of hold down spring (<0.3DAC)
- Drumming Room Surveys 587'; High level radwaste storage (<0.3 DAC)
- Upper Containment 650'; Dose rate survey post cavity flood up (<0.3 DAC)
- Lower Containment/Annulus Areas; Dose rate survey (<0.3DAC)

Radiological Hazards Control and Work Coverage (IP Section 02.04) (1 Sample)

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

Radiological Work Packages for Areas with Airborne Radioactivity

- RWP-19113; U1C29 Temporary Shielding Activities: Revision 0

- RWP-19115; U1C29 Reactor Baffle Bolt Inspection and Repair activities to Include Lower Internal Movements; Revision 0
- RWP-191143; U1C29 Perform In-Service Inspection Activities in Containment; Revision 0
- RWP-191102; U1C29 Reactor Reassembly Activities; Revision 0
- RWP-191142; U1C29 Containment Install, Modify and Remove Scaffolding; Revision 0
- RWP-191145; U1C29 Valve Maintenance and Repair; Revision 0
- RWP-191160; U1C29 Instrument Room Seal Table Activities; Revision 0

**OTHER ACTIVITIES – BASELINE**

71151 - Performance Indicator Verification

The inspectors verified the licensee performance indicator submittals listed below:

IE01: Unplanned Scrams per 7000 Critical Hours Sample (IP Section 02.01) (2 Samples)

- (1) Unit 1 (January 1 - December 31, 2018)
- (2) Unit 2 (January 1 - December 31, 2018)

IE03: Unplanned Power Changes per 7000 Critical Hours Sample (IP Section 02.02) (2 Samples)

- (1) Unit 1 (January 1 - December 31, 2018)
- (2) Unit 2 (January 1 - December 31, 2018)

IE04: Unplanned Scrams with Complications (USwC) Sample (IP Section 02.03) (2 Samples)

- (1) Unit 1 (January 1 - December 31, 2018)
- (2) Unit 2 (January 1 - December 31, 2018)

MS05: Safety System Functional Failures (SSFFs) Sample (IP Section 02.04) (2 Samples)

- (1) Unit 1 (January 1 - December 31, 2018)
- (2) Unit 2 (January 1 - December 31, 2018)

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

Event Report (IP Section 03.02) (2 Samples)

The inspectors evaluated the following licensee event reports which can be accessed at <https://lersearch.inl.gov/LERSearchCriteria.aspx>

- (1) LER 05000315/2018-001-00, Unit 1 East Essential Service Water Pump Inoperable Longer Than Allowed By Technical Specifications.

The inspectors determined that it was not within the licensee's ability to foresee or correct the cause discussed in the LER; therefore a performance deficiency was not

identified. A licensee-identified non-cited violation (NCV) is documented in the Results Section of this inspection report.

- (2) LER 05000316/2018-002-00, Unit 2 Component Cooling Water System Inoperable Longer Than Allowed By Technical Specifications

The inspectors determined that the condition described in the subject LER was bounded by a violation that was previously issued (NCV 05000316/315/2015008-007, Failure to Verify the Stations Capability to Isolate Postulated CCW [Component Cooling Water] System Out-Leakage.) The licensee performed testing as part of their corrective actions to address the subject NCV and the testing results required that the subject LER be submitted.

**INSPECTION RESULTS**

Licensee-Identified Non-Cited Violation	71153
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: On April 2, 2018, with Unit 1 in Mode 1, an abnormal noise was heard coming from the Unit 1 East Essential Service Water (ESW) Pump Motor. Vibration data was taken and determined to be acceptable. On April 4, 2018, an increase in the noise level from the motor was identified and the source was investigated. The Unit 1 East ESW train was declared inoperable on April 5, 2018, when the licensee determined there was no reasonable expectation that the motor would operate during a design basis event due to a degraded upper motor bearing. Corrective actions were taken to replace the motor and the Unit 1 East ESW train was declared operable on April 6, 2019. A past operability evaluation subsequently concluded that the Unit 1 East ESW train had been inoperable since April 2, 2018. During this time, redundant equipment in the Unit 1 West ESW train remained operable. The cause of the motor bearing degradation was determined to be due to a manufacturing defect. The inspectors determined that this condition was not within the licensee's ability to foresee and correct.</p> <p>Technical Specification 3.7.8, Essential Service Water System, requires that two ESW trains shall be operable while in Mode 1. Condition A, One ESW train Inoperable, requires the licensee to restore an inoperable ESW train to an operable status, with a completion time of 72 hours. In addition, if the inoperable ESW train is not restored to an operable status within 72 hours, Condition B requires the affected unit to be in Mode 3 within 6 hours. Contrary to this requirement, the Unit 1 East ESW train was inoperable from April 2, 2018 at 9:36 a.m. until April 6 at 5:27 p.m., for a total of 104 hours, which exceeded the requirements of Condition A, and Unit 1 was not placed in Mode 3 within 6 hours as required by Condition B.</p> <p>Significance: No Performance Deficiency.</p> <p>Severity Level: Severity Level IV</p> <p>This issue represents a licensee-identified violation of NRC requirements without an associated performance deficiency. Therefore, in accordance with the NRC's Enforcement Policy, the violation was dispositioned using the traditional enforcement process. In accordance with Section 2.2.4 and Section 6 of the NRC's Enforcement Policy, the inspectors assessed the significance of the violation by utilizing the Significance Determination Process</p>	

(SDP). When evaluated in accordance with Inspection Manual Chapter 0609, and utilizing Exhibit 2, the issue was determined to be of very low safety significance (i.e., Green). The Unit 1 East ESW train remained functional with the exception of a 29 hour period when the pump was removed from service for repairs. The Unit 1 West ESW train remained operable for the entire period that the Unit 1 East ESW train was inoperable. The significance of the issue is consistent with a SL IV violation.

Corrective Action Reference: AR 2018-3803; Increasing Trend in Vibes and Noise on 1-pp-7E; 04/05/2018

## **EXIT MEETINGS AND DEBRIEFS**

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

- On May 2, 2019, the inspector presented the quarterly integrated inspection results to Mr. J. Gebbie and other members of the licensee staff.

## **DOCUMENTS REVIEWED**

### 71111.01—Adverse Weather Protection

- PMP-5055-SWM-001, Severe Weather Guidelines, Revision 10

### 71111.04—Equipment Alignment

- 1-OHL-5030-SOM-005; Unit 1 Tours – Unit 1 Auxiliary Tour; Revision 35
- 1-OHP-4021-003-001; Letdown, Charging, and Seal Water Operation; Revision 73
- 1-OHP-4021-19-001; Operation of the Essential Service Water System; Revision 69

### 71111.05AQ—Fire Protection Annual/Quarterly

- 12-OHP-4025-001-002, Fire Response Guidelines, Revision 17
- AR 2019-1285, Dust on Damper 2-HV-AQTW Identified by NRC, 02/08/2019
- AR 2019-1428, Emergency Action Level for Fire, 02/13/2019
- D.C. Cook Fire Safety Analysis, Revision 3
- Fire Pre-Plans Volume 1, Revision 32

### 71111.08P—Inservice Inspection Activities

- AR 2017-10417; Boric Acid Evaluation of 1-NFP-222 Reactor Coolant Loop #2 Cold Leg Channel III Reactor Protection Input Flow Transmitter; 11/20/2017
- AR 2017-8732; Boric Acid Evaluation of 1-RH-134 Residual Heat Removal to Reactor Coolant Loop #3 Cold Leg Check Valve; 10/12/2017
- AR 2017-9183; Boric Acid Evaluation of 1-NFP-222-V2 Low Pressure Side Root Shutoff Valve; 10/18/2017
- AR 2017-9280; Boric Acid Evaluation of 1-NFP-222 Reactor Coolant Loop #4 Cold Leg Channel I Reactor Protection Input Flow Transmitter; 10/19/2017
- AR 2917-11993; Boric Acid Evaluation of 1-NS-622 Pressurizer Liquid Space Sample Shutoff Valve 1-NRV-102 Bypass Check Valve; 12/14/2017
- Procedure 1-OHP-4030-001-002; Containment Inspection Tours; Revision 46; 6/11/2018
- Procedure LMT-08-PDI-UT-2; Ultrasonic Examination of Austenitic Piping Welds; Revision 0; 7/14/2016

- Procedure LMT-10-PAUT-002; Manual Phased Array Ultrasonic Examination of Austenitic and Ferritic Piping Welds; Revision 1; 12/13/2017
- Procedure PMP-5030-001-001; Boric Acid Corrosion Control; Revision 23; 6/04/2018
- Report U1-VE-17-038; Ultrasonic Examination of Weld 1-RH-4-01F; 10/02/2017
- Report U1-VE-19-041; Phased Array Ultrasonic Examination (PAUT) of Safety Injection to Reactor Coolant 10-Inch Pipe-to-Elbow Weld, 1-SI-29-16S; 3/18/2019
- Report U1-VE-19-041; Phased Array Ultrasonic Examination (PAUT) of Safety Injection to Reactor Coolant 10-Inch Elbow-to-Pipe Weld, 1-SI-29-17S; 3/18/2019
- WO 55456224-01; Replace 3/4" Valve 1-NFP-230-V1 and Upstream Piping on Unit 1 Reactor Coolant System Crossover Leg; 10/12/2017
- WPS 1.8.1TS; Welding Procedure P1 to P8; Revision 6; 11/15/2013
- WPS 8.1TS; Welding Procedure P8 to P8; Revision 6; 11/15/2013

#### 71111.11—Licensed Operator Requalification Program and Licensed Operator Performance

- RQ-E-ANN-4; LOR Annual Operating Examination Simulator Scenario #4; Revision 2
- RQ-E-ANN-16; LOR Annual Operating Examination Simulator Scenario #16; Revision 4
- RQ-E-ANN-37; LOR Annual Operating Examination Simulator Scenario #37; Revision 3

#### 71111.12—Maintenance Effectiveness

- Maintenance Rule Scoping Document for Unit 1 Main Steam System; Revision 5
- System IQ Reports for Unit 1 Main Steam System; 1<sup>st</sup> Quarter 2017 through 4<sup>th</sup> Quarter 2018

#### 71111.13—Maintenance Risk Assessments and Emergent Work Control

- 12-EHP-2291-RIS-001; Engineering Risk Analysis; Revision 18
- 12-IHP-5021-EMP-006; Battery Cell/Bank Replacement; Revision 34
- 12-OHP-4022-018-001; Loss of Spent Fuel Pit Cooling; Revision 23
- 2-OHP-4022-082-002CD; Loss of Power to 250 VDC Bus 2CD; Revision 8
- AR 2019-3488; Boric Acid Deposit on the #4 Reactor Coolant Pump Seal Injection 2" Line; 04/03/2019
- DIT-B-03772-00; Basis for Operability of Station Batteries with Cells Jumpered in Parallel; 02/25/2019
- PMP-2291-OLR-001; On-Line Risk Management; Revision 46
- PMP-4100-SDR-001; Plant Shutdown Safety and Risk Management; Revision 48
- PMP-4100-SDR-002; Outage Risk Assessment and Management; Revision 12

#### 71111.15—Operability Determinations and Functionality Assessments

- AR 2019-0678; PRT Not Analyzed for Accident Loads; 01/21/2019
- AR 2018-9320; The Decade Box Orientation Does Not Make Sense with a Normal RTD Check. When Connected as Instructed, We Identified a +3 Degree Delta from Input Resistance to Output Degrees F; 10/02/2018
- AR 2019-0808; FME Found in 2-BATT-CD Cells; 01/24/2019
- AR 2019-1099; Unit 1 Operator Burden Status is Yellow; 02/04/2019
- OP-2-98294-4; Ice Condenser Temp Monitoring System Elementary Diagram; 04/30/1996
- Unit 1 Operator Burden Report; 02/05/2019
- Unit 2 Operator Burden Report; 02/05/2019

#### 71111.19—Post Maintenance Testing

- 12-IHP-6030-IMP-031; Air Operated Valve (AOV) Diagnostic Testing and Calibration; Revision 31
- AR 2019-1356; Actuator Leakage 2-PRV-2; 02/11/2019
- GT-2019-1474; Review the Use and Applicability of AOV Drop Test Results; 02/14/2019
- WO 55498453-01; 2-PRV-2 Refurbish Actuator and Replace Soft Goods; 02/21/2019
- WO 55498453-04; 2-PRV-2, Plant Air Compressor OME-41 Unloading Control; 02/12/2019
- WO 55498453-04; MTI, 2-PRV-2 Check/Set Stroke; 02/12/2019

#### 71111.20—Refueling and Other Outage Activities

- 1-OHP-4021-00-004; Plant Cooldown from Hot Standby to Cold Shutdown, Cooldown Using the Condenser Steam Dumps; Revision 82
- 1-OHP-4030-127-041; Refueling Integrity, CPN Integrity Checks for Technical Specification 3.9.3 During Fuel Movement; Revision 41
- WO 55512918-01; MTE: 1-QM-4 Perform Pre-Use Crane Inspection; 01/29/2019

#### 71111.22—Surveillance Testing

- 12-EHP-4030-0510256; Main Steam Safety Valve Setpoint Verification with Lift Assist Device; Revision 20
- 12-IHP-4030-211-001B; Train 'B' Solid State Protection System (SSPS) Automatic Trip and Actuation Logic Operational Test (TADOT, Actuation Logic Test and Master Relay Test) and Reactor Trip Breaker Operational Test (TADOT); Revision 12
- 12-OHP-4030-010-001; Ice Condenser Basket Weighing Surveillance; Revision 23
- 1-OHP-4030-132-217B; DG1AB Load Sequencing and Engineered Safety Feature Testing; Revision 49
- 2-OHP-4030-251-018; Steam Generator Stop Valve Dump Valve Surveillance 2BwOSR 3.8.1.2-1; Revision 12

#### 71124.01 - Radiological Hazard Assessment and Exposure Controls

- 12-THP-6010-RPP-011; Radioactive Source Control; Radioactive Source Inventory and Radioactive Source Leak Test Record; 01/29/2019
- 12-THP-6010-RPP-418; Radiological Posting; Revision 36
- National Source Tracking System (NSTS); Annual Inventory Reconciliation; 11/14/2018
- Personnel Contamination Log; Action Level-1; 03/08/2019 thru 03/15/2019
- PMP-6010-RPP-003; High, Locked High, and Very High Radiation Area Access; Revision 29
- PMP-6010-RPP-100; Radiation Exposure Monitoring, Reporting and Dose Control; Revision 17
- RWP 19113; U1C29 Temporary Shielding Activities; Revision 0
- RWP-191102; U1C29 Reactor Reassembly Activities; Revision 0
- RWP-191142; U1C29 Containment Install, Modify and Remove Scaffold; Revision 0
- RWP-191143; U1C29 Perform In-Service Inspection Activities in Containment; Revision 0
- RWP-191145; U1C29 Valve Maintenance and Repair; Revision 0
- RWP-19115; U1C29 Reactor Baffle Bolt Inspection and Repair Activities to Include Lower Internal Movements; Revision 0
- RWP-191160; U1C29 Instrument Room Seal Table Activities; Revision 0



71151—Performance Indicator Verification

- Operator Narrative Logs, January 1 through December 31, 2018

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

- AR 2018-3803; Increasing Trend in Vibes and Noise on 1-pp-7E; 04/05/2018

- AR 2018-4133; Leakage Past Unit 2 CCW Pump Discharge Cross-Tie Valves; 04/14/2018