



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

May 10, 2019

Mr. Charles Arnone  
Vice President, Operations  
Entergy Nuclear Operations, Inc.  
Palisades Nuclear Plant  
27780 Blue Star Memorial Highway  
Covert, MI 49043-9530

SUBJECT: ERRATA - PALISADES NUCLEAR PLANT, UNIT 1—NRC INTEGRATED  
INSPECTION REPORT 05000255/2019001

Dear Mr. Arnone:

The U.S. Nuclear Regulatory Commission (NRC) identified an administrative error in NRC Inspection Report 05000255/2019001 dated May 3, 2019 (ADAMS Accession Number ML19123A174). Specifically, the section entitled "71153 – Follow-Up of Events and Notices of Enforcement Discretion" subsection entitled "Event Follow-Up" erroneously credited three samples. Only two inspection samples were completed and the third sample should not have been listed. As a result, the NRC has reissued the report in its entirety with that section revised to correct the error.

On March 31, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Palisades Nuclear Plant, Unit 1. On April 16, 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.

The NRC inspectors did not identify any finding or violation of more than minor significance.

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/*

Dariusz Szwarc, Acting Chief  
Branch 2  
Division of Reactor Projects

Docket No.: 05000255  
License No.: DPR-20

Enclosure:  
Inspection Report 05000255/2019001

cc: Distribution via LISTSERV®

Letter to Charles Arnone from Dariusz Szwarc dated May 10, 2019

SUBJECT: PALISADES NUCLEAR PLANT, UNIT 1—NRC INTEGRATED INSPECTION REPORT 05000255/2019001

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

Docket Number: 05000255

License Number: DPR-20

Report Number: 05000255/2019001

Enterprise Identifier: I-2019-001-0057

Licensee: Entergy Nuclear Operations, Inc.

Facility: Palisades Nuclear Plant, Unit 1

Location: Covert, MI 49043

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

Inspectors: J. Boettcher, Resident Inspector  
J. Bozga, Senior Reactor Inspector  
I. Hafeez, Reactor Inspector  
P. Laflamme, Senior Resident Inspector

Approved By: Dariusz Szwarc, Acting Chief  
Branch 2  
Division of Reactor Projects

## SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a quarterly inspection at Palisades Nuclear Plant, Unit 1 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.

### List of Findings and Violations

No findings or violations were identified.

### Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
URI	05000255/2017007-02	Containment Dome Truss Analysis	71111.21M	Closed
LER	05000255/2019-001-00	LER 2019-001-00 for Palisades Nuclear Plant, Reactor Protection System and Auxiliary Feedwater System Actuation due to Turbine Governor Valve Failure.	71153	Closed
LER	05000255/2019-002-00	LER 2019-002-00 for Palisades Nuclear Plant, Automatic Reactor Trip and AFW System Actuation Due to the Loss of Power to the RPS BD Matrix.	71153	Closed

## PLANT STATUS

The plant began the inspection period in power ascension from 80 percent after completing the refueling outage on December 28, 2018. Full power operation was achieved on January 2, 2019, and the reactor remained at or near rated thermal power until January 3, 2019. On January 3, 2019, operators reduced power to approximately 85 percent to complete repairs to CV-0605, feedwater heater E-6B level control valve. The unit was manually tripped on the same day due to oscillations on main turbine governor valve #4. After completing repairs on governor valve #4, the reactor was taken critical on January 5, 2019, and reached full power operation on January 7, 2019. On January 9, 2019, an automatic reactor trip occurred due to a loss of power to the reactor protection system BD matrix. Following successful repairs to the reactor protection system, the reactor was taken critical on January 11, 2019. The reactor reached full power operation on January 12, 2019, and remained at our near rated thermal power for the remainder of the inspection period.

## INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed 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) (1 Sample)

The inspectors evaluated readiness for impending adverse weather conditions for a winter storm with extreme cold temperatures, gale force winds, and heavy snow on January 29, 2019.

### 71111.04 - Equipment Alignment

#### Partial Walkdown (IP Section 02.01) (3 Samples)

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

- (1) Right train Auxiliary Feedwater (AFW) with P-8B AFW Pump out of service for maintenance on February 7, 2019;
- (2) Left train Safety Injection (SI) system during right train SI surveillance testing on February 20, 2019; and

- (3) Service Water (SW) pump P-7B during 1-2 Emergency Diesel Generator (EDG) planned maintenance on March 18, 2019.

#### 71111.04S - Equipment Alignment

##### Complete Walkdown (IP Section 02.02) (1 Sample)

The inspectors evaluated system configurations during a complete walkdown of the 1-1 and 1-2 EDG systems from March 21 through March 25, 2019.

#### 71111.05Q - Fire Protection

##### Quarterly Inspection (IP Section 03.01) (5 Samples)

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

- (1) Fire Area 3: North Cableway and 1D Switchgear Room, and Fire Area 21: Electrical Equipment Room, on January 16, 2019;
- (2) Fire Area 26: Southwest Cable Penetration Room on February 6, 2019;
- (3) Fire Area 13G: Spent Fuel Pool (SFP) Heat Exchanger Room on February 27, 2019;
- (4) Fire Area 16: Component Cooling Pump Room on February 27, 2019; and
- (5) Fire Area 17: Refueling and SFP area on March 12, 2019.

#### 71111.06 - Flood Protection Measures

##### Inspection Activities - Internal Flooding (IP Section 02.02a.) (1 Sample)

The inspectors evaluated internal flooding mitigation protections in the:

Emergency Diesel Generator (EDG) rooms from March 11 through March 13, 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) (2 Samples)

- (1) The inspectors observed and evaluated licensed operator performance in the Control Room during a downpower for emergent repairs to CV- 0605 and a start up from trip between January 3 and January 5, 2019; and
- (2) The post reactor trip actions and startup between January 9 and January 11, 2019.

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

The inspectors observed and evaluated Licensed Operator Requalification Training Annual Exam PL-N00320 on March 6, 2019.

### 71111.12 - Maintenance Effectiveness

#### Routine Maintenance Effectiveness Inspection (IP Section 02.01) (2 Samples)

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

- (1) 480 VAC power system after failure of EX-12 transformer which occurred on October 15, 2018; and
- (2) Main steam system after failure of #4 governor valve on January 3, 2019.

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

#### Risk Assessment and Management Sample (IP Section 03.01) (5 Samples)

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

- (1) Emergent repairs to CV-0605, feedwater heater E-6B level control valve, on January 3, 2019;
- (2) Emergent troubleshooting of control rod drive (CRD) mechanism 24 after dropped rod alarm on January 10, 2019;
- (3) 6A feedwater heater temperature variations impacting heat balance calculations on January 17, 2019;
- (4) Emergent troubleshooting and repairs to Control Room HVAC system on January 25, 2019; and
- (5) Elevated risk for 1-2 EDG planned maintenance window during the week of March 18, 2019.

### 71111.15 - Operability Determinations and Functionality Assessments

#### Operability Determinations and Functionality Assessments (IP Section 02.01) (4 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) AFW Pump P-8B as documented in CR-PLP-2019-00180 on January 14, 2019;
- (2) SV-3057A/B, air supply for CV-3057 Safety Injection and Refueling Water Tank (SIRWT) outlet valve as documented in CR-PLP-2019-00715 during the week of February 19, 2019;
- (3) Low pressure SI pump P-67B suction valve open thrust evaluation as documented in CR-PLP-2019-00944 on March 22, 2019; and
- (4) Evaluation of scaffolding in contact with Bus 1C as documented in CR-PLP-2019-01206 on March 25, 2019.



### 71111.19 - Post Maintenance Testing

#### Post Maintenance Test Sample (IP Section 03.01) (7 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) QO-3 after Reactor Protection System (RPS) power supply and fuse replacement on January 10, 2019;
- (2) Testing after V-95 Control Room ventilation main supply fan auxiliary motor starter relay replacement on January 25, 2019;
- (3) RO-145 after P-8B AFW pump maintenance on February 7, 2019;
- (4) QO-16 after P-54B containment spray pump maintenance on February 13, 2019;
- (5) QO-5 after MO-3062, high pressure SI train 2 to Loop 2B valve insulation resistance and polarization index megger testing on February 25, 2019;
- (6) MO-7A-1 after 1-1 EDG maintenance on March 4 and 5, 2019; and
- (7) QO-14 after P-7A SW pump repack on March 15, 2019.

### 71111.20 - Refueling and Other Outage Activities

#### Refueling/Other Outage Sample (IP Section 03.01) (2 Samples)

- (1) The inspectors evaluated the 1F27 reactor trip outage activities from January 3 to January 5, 2019; and
- (2) 2F27 reactor trip outage activities from January 9 to January 11, 2019.

### 71111.21M - Design Bases Assurance Inspection (Teams)

#### Review of Operating Experience Issues (IP Section 02.06) (1 Partial)

The inspectors completed their review of Unresolved Item (URI) 05000255/2017007-03: Containment Dome Truss Analysis. The inspectors' review and closure of this URI did not constitute an inspection sample.

### 71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

#### In Service Testing (IST) (IP Section 03.01) (1 Sample)

QO-19, P-66B High Pressure Safety Injection (HPSI) pump and engineered safeguards system check valve operability test on January 14, 2019.

#### Surveillance Testing (IP Section 03.01) (2 Samples)

- (1) PO-1, Operations Pre-Startup tests on January 10, 2019; and
- (2) QI-3, Reactor Protection Matrix logic tests on March 4, 2019.

## **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)

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

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

Unit 1 (January 1, 2018 – December 31, 2018)

MS08: Heat Removal Systems (IP Section 02.07) (1 Sample)

Unit 1 (January 1, 2018 – December 31, 2018)

### 71152 - Problem Identification and Resolution

Annual Follow-Up of Selected Issues (IP Section 02.03) (1 Sample)

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

45-Year Containment Tendon Surveillance Summary Report Review

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

Event Follow-Up (IP Section 03.01) (2 Samples)

- (1) The inspectors evaluated a manual reactor trip and AFW system actuation due to turbine governor valve #4 failure and licensee's response on January 3, 2019; and
- (2) An automatic reactor trip and AFW system actuation due to the loss of power to the Reactor Protection System BD Matrix and licensee's response on January 9, 2019.

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 2019-001-00, Reactor Protection System and AFW System Actuation due to Turbine Governor Valve Failure, ADAMS Accession number ML19059A082.

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 also concluded that no violation of NRC requirements occurred.

- (2) LER 2019-002-00, Automatic Reactor Trip and AFW System Actuation due to the Loss of Power to the RPS BD Matrix, ADAMS Accession number ML19059A136.

The circumstances surrounding this LER are documented in the Results section.

## INSPECTION RESULTS

Unresolved Item (Closed)	Containment Dome Truss Analysis 05000255/2017007-02	71111.21M
<p>Description: The inspectors reviewed additional information provided by the licensee regarding design and licensing basis and consulted with technical staff from the Office of Nuclear Reactor Regulation (NRR) to ascertain licensing basis and technical adequacy. Based on this review, the inspectors sufficiently resolved these concerns and consider URI 05000255/2017007-03 closed. Specifically, the inspectors did not identify any actions inconsistent with the licensing basis or technically inadequate with respect to these concerns.</p> <p>Corrective Action Reference: CR 2017-05016, "Dome Trusses," dated November 1, 2017</p>		

Observation	71152
<p>The licensee documented in condition report CR-PLP-2018-04976 that during the analysis of the grease for containment tendon V-24, the water content in the corrosion medium was 16 percent. The ASME Section XI Article IWL 3221.4 acceptance criteria is 10 percent for water content in the corrosion medium as delineated in ASME Section XI Table IWL-2525-1. The licensee performed an evaluation in accordance with ASME Section XI Article IWL 3222. The inspectors reviewed this evaluation and no performance deficiencies were identified.</p>	

LER (Closed)	LER 2019-002-00 for Palisades Nuclear Plant, Automatic Reactor Trip and AFW System Actuation Due to the Loss of Power to the RPS BD Matrix. 05000255/2019-002-00	71153
<p>Description: On January 9, 2019, the licensee experienced an automatic reactor trip and valid actuation of the AFW system. All safety systems and shutdown equipment performed as expected. The direct cause of the event was identified to be a loss of all power to the RPS BD matrix due to shorted capacitors associated with the RPS B channel and a blown input fuse associated with the RPS D channel BD matrix power supply. The loss of power to the RPS BD matrix resulted in an automatic reactor trip per RPS design. The licensee replaced the RPS B channel capacitors with insulated capacitors and the RPS D channel BD matrix power supply and fuse were replaced as part of their corrective actions. Additionally, the licensee sent the RPS D channel BD matrix power supply and fuse to the vendor for failure evaluation. The licensee planned to review the results of this failure evaluation to determine if any further corrective actions are required.</p> <p>The inspectors reviewed the LER submittal for accuracy and completeness of information. The completed and planned corrective actions were reviewed for appropriateness by the inspectors. No performance deficiencies were identified.</p>		

## EXIT MEETINGS AND DEBRIEFS

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

- On April 16, 2019, the inspector presented the quarterly integrated inspection results to Mr. C. Arnone and other members of the licensee staff.
- On March 21, 2019, the inspector presented the URI 2017007-02, Containment Dome Truss Analysis to Mr. K. O'Connor, Engineering Director and other members of the licensee staff.

## DOCUMENTS REVIEWED

### 71111.01—Adverse Weather Protection

- CR-PLP-2019-00382; Main Transformer Low Oil Flow Alarm; 01/25/2019
- CR-PLP-2019-00393; P-74 SIRW Tank Recirculation Pump Not Running; 01/25/2019
- CR-PLP-2019-00414; VUH Turbine Unit Heater Not Running; 1/27/2019
- SOP-14; Circulating Water and Chlorination Systems; Revision 89
- SOP-15; Service Water System; Revision 68
- SOP-23; Plant Heating System; Revision 61

### 71111.04—Equipment Alignment

- CR-PLP-2019-00388; SIT T-82B Decreasing Trend; 01/25/2019
- CR-PLP-2019-00614; NRC Identified Light Housing Touching P-8D Piping; 02/08/2019
- CR-PLP-2019-00615; NRC Identified Current Positions of MV-FW60004 and MV-FW60005 are “Throttled”; 02/08/2019
- CR-PLP-2019-00629; Following the Condition Identified in CR-PLP-2019-00615; the Remainder of Checklist 12/5, was Walked Down by Operations as an Extent of Condition; 02/09/2019
- CR-PLP-2019-01104; Vibration Analyzer did not Perform as Expected During Service Water Testing; 03/15/2019
- DBD-5.01; Diesel Engine and Auxiliary Systems, Revision 7
- M-207; Piping & Instrument Diagram, Auxiliary Feedwater System; Sheet 2, Revision 44
- M-214; Lube Oil, Fuel Oil & Diesel Generator Systems; Sheet 1, Revision 81
- M-220; Piping & Instrument Diagram, Make-Up Domestic Water & Chemical Injection Systems; Sheet 1, Revision 105
- SOP-12; Feedwater System; Revision 79
- SOP-22; Emergency Diesel Generators; Revision 75

### 71111.05AQ—Fire Protection Annual/Quarterly

- DBD-7.10; “NFPA 805 Fire Protection Program;” Revision 3
- EA-FPP-03-001; Analysis of Combustible Loading at Palisades Nuclear Plant; Revision 4
- Pre-Fire Plan 13G; Spent Fuel Pool Heat Exchanger Room; Elevation 590’
- Pre-Fire Plan 16; Component Cooling Water Room; Elevation 590’
- Pre-Fire Plan 21; Electrical Equipment Room; Elevation 607’-6”
- Pre-Fire Plan 26; Southwest Cable Penetration Room; Elevation 590’ & 607’
- Pre-Fire Plan 3; North Penetration Room & North Cableway; Elevation 625’

#### 71111.06—Flood Protection Measures

- AOP-39; Internal Plant Flooding; Revision 1
- CR-PLP-2019-01053; NRC Identified Door-170, Entrance to both Diesel Generator Rooms from Outside, has its Dogs not in Contact with the Door; 03/13/2019
- DBD-7.08; Plant Protection Against flooding; Revision 6
- EC-82056; Watertight Door 170 – Middle Two Dogs on East Side not Fully Engaged; Revision 0
- M-208; Piping & Instrument Diagram, Service Water System; Sheet 1A; Revision 67
- M-216; Piping & Instrument Diagram, Fire Protection System; Sheet 2; Revision 72
- WO 331182; CK-RW419, Diesel Generator Room Floor Drain Check Valve Post-Maintenance; 04/02/2014
- WO 331183; CK-RW420, Diesel Generator Room Floor Drain Check Valve Post-Maintenance; 08/30/2013
- WO 52457272; Test Operation of LS-5211, LS-5217, and LS-5218; 12/15/2016
- WO 52773249; Diesel Generators and D Bus Floor Drain Flow Verification; 07/27/2018
- WO 52775537; Annual Inspection of Watertight Barriers; 08/07/2018

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

- CR-PLP-2019-00937; Licensed Operator Qualifications Removed; 03/06/2019
- SOP-8; Main Turbine and Generating Systems; Revision 107
- EOP-1.0; Standard Post-Trip Actions; Revision 21

#### 71111.12—Maintenance Effectiveness

- AR 18014838; PMCR for Approval of PMOS Dry Type Transformer Template Deviations; 02/28/2019
- CR-PLP-2003-01903; Trip of the “A” Charging Pump Breaker 52-1205; 03/19/2003
- CR-PLP-2014-00042; K-Line 480V Circuit Breakers Identified Subject ABB Part 21; 01/03/2014
- CR-PLP-2016-5341; Screen Wash Pump Breaker Spring Charging Motor Failure; 11/02/2016
- CR-PLP-2018-04747; Loss of Load Centers 12 and 20; 10/15/2018
- CR-PLP-2018-05108; Initiate Work Orders to Perform Testing of Dry Type Transformers During 1R26; 10/26/2018
- PLP-RPT-12-00026; EGAD-EP-10 Palisades Maintenance Rule Scoping Document; Revision 3
- PM Basis Template; EN-Transformer, Dry Type – Large; Revision 1 – 11/27/2018
- System Health Report; LAC – 480 VAC System; Q4-2018
- System Health Report; MSS-Main Steam System; Q3-2018
- System Health Report; MSS-Main Steam System; Q4-2018
- WO 156951; Replace EX-12 Nitrogen Relief Valve; 04/17/2012
- WO 511682; EX-11 Transformer Testing; 11/11/2018
- WO 511683; EX-14 Testing; 11/18/2018
- WO 511684; EX-16 Transformer Testing; 11/21/2018
- WO 51637109; EX-12, Nitrogen Level Low, Add Nitrogen; 03/17/2008

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

- Admin 4.02; Control of Equipment; Revision 81
- CR-PLP-2019-00145; CRD-24 did not Move with the Group; 01/10/2019
- DWO-1; Operator’s Daily/Weekly Items Modes 1, 2, 3, and 4; Revision 108

- CRD-E-16; Control Rod Drive Mechanism Troubleshooting; Revision 10
- EC 81199; E-6A Feedwater Heater Output Temperature Variations and Heat Balance Power; Revision 0
- EN-WM-104; Online Risk Assessment; Revision 18
- M-206; Extractions, Heater Vents and Drain Systems; Sheet 1; Revision 53
- SOP-10; Extraction and Heater Drain System; Revision 39
- WO 516186; CRD-24; Control Rod Drive Mechanism Troubleshoot IAW EN-MA-125; 01/10/2019

#### 71111.15—Operability Determinations and Functionality Assessments

- CR-PLP-2019-00223; Stagnant Water on the Outboard Side of P-8A; 01/15/2019
- CR-PLP-2019-00715; Bill of Materials Determined to Call out EPDM Diaphragms; 02/15/2019
- CR-PLP-2019-00944; MO-3190 Found Back Seated; 03/06/2019
- CR-PLP-2019-01161; Issue with the Reported Number of Strokes of CV-3057 SIRW Tank T-58 Outlet Isolation Valve; 03/13/2019
- EA-GL-8910-01; Generic Letter 89-10 MOV Thrust Window Calculations; 06/06/2015
- EC 56362; Evaluation of the Potential for Excessive Air Entrainment Caused by Vortexing in the SIRWT During a LOCA; Revision 2
- EOP Supplement 42; Pre and Post RAS Actions; Revision 8
- M-204; Piping & Instrument Diagram; Safety Injection and Containment Spray; Sheet 1B, Revision 41
- M-225; Piping & Instrument Diagram; High Pressure Air Operated Valves; Sheet 1A, Revision 6
- QO-5 Attachment 16; Valve Stroke Testing Data Sheet for MO-3190; Revision 107
- QO-21; Inservice Test Procedure – Auxiliary Feedwater Pumps; Revision 50
- WO 513712; SV-3057A/B; Containment Sump O/L A/S, Replace SV and Solenoid Valves and Clean Piping; 12/15/2018
- WO 514603; CV-3057; SIRW Take O/L Close Stroke Time too Slow; 12/15/2018

#### 71111.19—Post Maintenance Testing

- CR-PLP-2019-00601; In-Board Bearing Leakage Went from 1-2 Drops per Minute to 0 Drops per Minute; 02/07/2019
- CR-PLP-2019-00671; NRC Identified a Missing Signature in Procedure; 02/12/2019
- CR-PLP-2019-00685; While Removing Breaker 152-112, Noted Pieces of a Broken Bumper Stop; 02/13/2019
- CR-PLP-2019-00695; After Running P-67B, Low Pressure Safety Injection Pump; 02/13/2019
- CR-PLP-2019-00820; MO-3062 Polarization Index Lower than Acceptance Criteria; 2/25/2019
- CR-PLP-2019-00922; Discovered Air Leakage Under SV-1480; 03/06/2019
- CR-PLP-2019-00923; Found Air Leaks on 6<sup>th</sup> Elbow Downstream of Valve; 03/06/2019
- EC-79625; Alternate Packing Material for Service Water Pump P-7A, Selected for Longer Packing Set Life When Increased Pump Wear/Shaft Motion is Present; Revision 0
- QO-14; Inservice Test Procedure – Service Water Pumps; Revision 43
- QO-16; Inservice Test Procedure – Containment Spray Pumps; Revision 40
- RO-145; Comprehensive Pump Test Procedure Auxiliary Feedwater Pumps P-8A, P-8B and P-8C; Revision 20
- SPS-E-11; 480 Volt Breaker Inspection and Repair; 01/25/2019
- ST-0514; Inspection and Maintenance Post-Maintenance; 02/07/2019
- WO 434895; MV-DE113; Air Leak on Upper Elbow Downstream of Valve-VLC; 03/05/2019
- WO 451495; MV-ES3218; Grease Leak from Yoke Bushing – MDM; 02/13/2019

- WO 507957; EH-27A (K-6); Replace Heating Elements – Reduced Performance; 03/05/2019
- WO 507958; EH-27C (K-6A); Replace Heating Elements – Reduced Performance; 03/05/2019
- WO 510479; P-7A; Repack Pump with Alternate Packing per EC-79625; 03/08/2019
- WO 52744195; RO-145B –P-8B Auxiliary Feedwater Comprehensive Pump Test; 02/07/2019
- WO 52751954; MO-3062 Breaker PMT; 02/25/2019
- WO 52774211; PCV-1480, 1-1 DG Starting Air PCV PM; 03/05/2019
- WO 52775885; CK-MS402, (IST/CM Valve) Inspection Post-Maintenance per SEP-CV-PLP-001; 02/07/2019
- WO 52782054; P-54B, EMA-1112; Coupling Inspection; 02/13/2019
- WO 52791870; EMA-1112; P-54B Motor/Pump Bearing Oil Change; 02/13/2019
- WO 52795726; EEQ-EMA-1112 Containment Spray P-54B Motor; 02/13/2019
- WO 52807845; K-8, Lubricate Governor Linkage; 02/07/2019
- WO 52807849; P-8B, K-8; “B” Auxiliary Feed Pump & Turbine Oil Change; 02/07/2019
- WO 52809920; E-22A: Eddy Current Testing of EDG Jacket Water Cooler; 03/05/2019
- WO 52849956; QO-6B – IST Procedure – Containment Spray Pump P-54B; 02/13/2019
- WO 52854057; MO-7A-1-Emergency Diesel Generator 1-1 (K-6A); 03/05/2019

#### 71111.20—Refueling and Other Outage Activities

- CR-PLP-2019-00126; Arc Observed in the Back Lower Corner of RI-62B Power Range Drawer; 01/09/2019
- GOP-3; Mode 3 Greater Than or Equal to 525°F to Mode 2; Revision 33
- GOP-4; Mode 2 to Mode 1; Revision 24
- GOP-5; Power Escalation in Mode 1; Revision 45
- QI-3; Reactor Protection Matrix Logic Tests; 01/10/2019
- QI-9; Reactor Protective Trip Units; 01/10/2019
- WO 00515875-05; Troubleshoot Plant Trip- 28V Power Supply; 01/10/2019

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- M-204; Piping & Instrument Diagram; Safety Injection Containment Spray; Sheet 1B, Revision 41
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- PO-1; Operations Pre-Startup Tests; Revision 17
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