



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, ILLINOIS 60532-4352

January 29, 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 POWER PLANT, UNITS 1 AND 2 — NRC
INTEGRATED INSPECTION REPORT 05000315/2018004 AND
05000316/2018004

Dear Mr. Gebbie:

On December 31, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Donald C. Cook Nuclear Power Plant, Units 1 and 2. On January 16, 2019, the NRC inspectors discussed the results of this inspection with yourself and other members of your staff. The results of this inspection are documented in the enclosed report.

Based on the results of this inspection, the NRC has identified one issue that was evaluated under the risk significance determination process as having very low safety significance (Green). The NRC has determined that no violation is associated with this issue. Further, the inspectors documented a licensee-identified violation which was determined to be of very low safety significance (Green) in this report. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2.a of the Enforcement Policy.

If you contest the violation or significance of the NCV, 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 the Donald C. Cook Nuclear Power Plant.

If you disagree with a cross-cutting aspect assignment or a finding not associated with a regulatory requirement in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region III; and the NRC resident inspector at the Donald C. Cook Nuclear Power 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 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Eric R. Duncan, Chief
Branch 4
Division of Reactor Projects

Docket Nos. 50-315; 50-316
License Nos. DPR-58 and DPR-74

Enclosure:
IR 05000315/2018004; 05000316/2018004

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Letter to J. Gebbie from E. Duncan dated January 29, 2019

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INTEGRATED INSPECTION REPORT 05000315/2018004 AND
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U.S. NUCLEAR REGULATORY COMMISSION
REGION III

Docket Numbers: 50-315; 50-316

License Numbers: DPR-58; DPR-74

Report Numbers: 05000315/2018004; 05000316/2018004

Enterprise Identifier: I-2018-004-0026

Licensee: Indiana Michigan Power Company

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

Location: Bridgman, MI

Dates: October 1 through December 31, 2018

Inspectors: J. Ellegood, Senior Resident Inspector
T. Taylor, Resident Inspector
A. Dahbur, Senior Reactor Engineer
M. Garza, Emergency Preparedness Inspector
T. Go, Health Physicist
J. Mancuso, Reactor Engineer
M. Ziolkowski, Security Inspector

Approved by: E. Duncan, Chief
Branch 4
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring licensee performance by conducting an integrated quarterly inspection at the Donald C. Cook Nuclear 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. A Licensee-identified non-cited violation is documented in report section 71111.15.

List of Findings and Violations

| Misaligned Heater Level Column Valves Leads to Manual Reactor Trip | | | |
|---|---|----------------------|--|
| Cornerstone | Significance | Cross-Cutting Aspect | Report Section |
| Initiating Events | Green FIN 05000315/2018004-01 Open and Closed | None | 71111.12— Maintenance Effectiveness |
| A self-revealed, Green finding was identified when a hydraulic leak in the main feed pump controls resulted in operators performing a manual downpower. | | | |

Additional Tracking Items

None.

PLANT STATUS

Unit 1 began the inspection period at full power and remained at or near full power for the entire inspection period.

Unit 2 began the inspection at full power and remained at or near full 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

Seasonal Extreme Weather (1 Sample)

The inspectors evaluated readiness for seasonal extreme weather conditions prior to the onset of seasonal cold weather and snow on November 29, 2018.

Impending Severe Weather (1 Sample)

The inspectors evaluated readiness for impending adverse weather conditions, including high winds, on November 6, 2018.

71111.04—Equipment Alignment

Partial Walkdown (3 Samples)

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

- (1) 'A' train of reserve auxiliary transformer on October 22, 2018;
- (2) Unit 2 'CD' emergency diesel generator (EDG) following surveillance testing on December 7, 2018; and
- (3) Spent fuel pool (SFP) cooling following maintenance on December 7, 2018

Complete Walkdown (1 Sample)

The inspectors evaluated system configurations during a complete walkdown of the Unit 2 auxiliary feedwater (AFW) system on November 1, 2018.

71111.05AQ—Fire Protection Annual/Quarterly

Quarterly Inspection (4 Samples)

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

- (1) Unit 1 west AFW pump and turbine driven auxiliary feedwater (TDAFW) pump on November 7, 2018;
- (2) Unit 2 west AFW pump and TDAFW pump on November 7, 2018;
- (3) AFW pump corridor on November 7, 2018; and
- (4) Unit 2 essential service water pump and motor control center, on November 7, 2018.

Annual Inspection (1 Sample)

The inspectors evaluated fire brigade performance on October 2, 2018.

71111.11—Licensed Operator Requalification Program and Licensed Operator Performance

Operator Requalification (1 Sample)

The inspectors observed and evaluated a simulator scenario on November 20, 2018.

Operator Performance (1 Sample)

The inspectors observed and evaluated solid state protection system testing, a high risk evolution, on November 29, 2018.

71111.12—Maintenance Effectiveness

Routine Maintenance Effectiveness (1 Sample)

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

- (1) Unit 1 main feed pump electrohydraulic control failure on July 14, 2018.

Quality Control (1 Sample)

The inspectors evaluated maintenance and quality control activities associated with the following equipment performance issue:

- (1) Vent valve replacement on Unit 1 TDAFW Pump on October 16, 2017.

71111.13—Maintenance Risk Assessments and Emergent Work Control (4 Samples)

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

- (1) Unit 1 'AB' EDG surveillance failure on October 17, 2018;
- (2) Reserve feed train A planned electrical outage, during the week of November 5, 2018;
- (3) Assessment of rough lake conditions on November 26, 2018; and
- (4) Failure of Unit 2 critical control room power inverter on December 10, 2018.

71111.15—Operability Determinations and Functionality Assessments (4 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) Unit 'AB' EDG fuel line leak on October 17, 2018;
- (2) Extent of condition results for hardened grease on 4kV breaker secondary contacts on December 14, 2018;
- (3) Increase in Unit 1 component cooling water system leakage on December 14, 2018; and
- (4) Auxiliary building engineered safety feature exhaust fan failure on November 9, 2018.

71111.19—Post Maintenance Testing (7 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) Hot leg sample valve 1—NCR—106 test following relay calibration on October 16, 2018;
- (2) Reset of 12—ZFP—342 fire deluge valve following issues on initial reset after piping inspections, on October 23, 2018;
- (3) Unit 1 'AB' EDG following fuel line, injector, and pump replacement following leak, on October 24, 2018;
- (4) East motor driven AFW pump test following relay calibration, on November 11, 2018;
- (5) Technical support center ventilation system, on November 27, 2018;
- (6) Unit 1 #2 steam generator power operated relief valve following planned maintenance, on November 29, 2018; and
- (7) Restoration of Unit 2 critical control room power inverter following failure/parts replacement, on December 12, 2018.

71111.22—Surveillance Testing

The inspectors evaluated the following surveillance tests:

Routine (4 Samples)

- (1) Train A containment equalization fan surveillance and ESF [engineered safety feature] response time test on November 8, 2018;
- (2) Unit 2 controlled leakage verification, on December 12, 2018;
- (3) FLEX pump inspection, on December 18, 2018; and
- (4) Unit 1 west containment spray test, on December 20, 2018.

71114.02—Alert and Notification System Testing (1 Sample)

The inspectors evaluated the maintenance and testing of the alert and notification system from October 1 – 16, 2018.

71114.03—Emergency Response Organization Staffing and Augmentation System (1 Sample)

The inspectors evaluated the readiness of the licensee's Emergency Response Organization from October 1 – 16, 2018.

71114.04—Emergency Action Level and Emergency Plan Changes (1 Sample)

The inspectors completed the evaluation of submitted Emergency Action Level and Emergency Plan changes on November 26, 2018. This evaluation does not constitute NRC approval.

71114.05—Maintenance of Emergency Preparedness (1 Sample)

The inspectors evaluated the maintenance of the licensee's emergency preparedness program from October 1 – 16, 2018.

RADIATION SAFETY

71124.02—Occupational As Low As Reasonably Achievable Planning and Controls

Radiological Work Planning (1 Sample)

The inspectors evaluated the licensee's radiological work planning by reviewing the following activities:

- (1) RWP 182101; U2C24 Reactor Disassembly Activities; Task No. 1 through No. 7;
- (2) RWP 182102; Reactor Reassembly Activities; Task No. 1 through No. 7;
- (3) RWP 182103; U2C24 Fuel Shuffle and Support Work; Task No. 1 through No. 3; and
- (4) RWP 182105; U2C24 Reactor Baffle Bolt Inspection and Repair Activities to Include Lower Internal Movements; Task No. 1 through No. 10.

Verification of Dose Estimates and Exposure Tracking Systems (1 Sample)

The inspectors evaluated dose estimates and exposure tracking.

71124.05—Radiation Monitoring Instrumentation

Walk Downs and Observations (1 Sample)

The inspectors evaluated radiation monitoring instrumentation during plant walkdowns.

OTHER ACTIVITIES – BASELINE

71151—Performance Indicator Verification (19 Samples)

The inspectors verified the licensee performance indicator submittals listed below:

- (1) MS06: Emergency Alternating Current (AC) Power Systems – 2 Samples (Units 1 and 2, October 1, 2017 through September 30, 2018);
- (2) MS07: High Pressure Injection Systems – 2 Samples (Units 1 and 2, July 1, 2017 through September 30, 2018);
- (3) MS08: Heat Removal Systems – 2 Samples (Units 1 and 2, July 1, 2017 through September 30, 2018);
- (4) MS09: Residual Heat Removal Systems – 2 Samples (Units 1 and 2, July 1, 2017 through September 30, 2018);
- (5) MS10: Cooling Water Support Systems – 2 Samples (Units 1 and 2, October 1, 2017 through September 30, 2018);

- (6) BI01: Reactor Coolant System (RCS) Specific Activity Sample – 2 Samples (Units 1 and 2, October 1, 2017 through September 30, 2018);
- (7) BI02: RCS Leak Rate Sample – 2 Samples (Units 1 and 2, October 1, 2017 through September 30, 2018);
- (8) EP01: Drill/Exercise Performance (DEP) – 1 Sample (July 1, 2017 through June 30, 2018);
- (9) EP02: Emergency Response Organization (ERO) Drill Participation – 1 Sample (April 1, 2017 through June 30, 2018);
- (10) EP03: Alert and Notification System (ANS) Reliability – 1 Sample (April 1, 2017 through June 30, 2018);
- (11) OR01: Occupational Exposure Control Effectiveness – 1 Sample (April 1, 2017 through June 30, 2018); and
- (12) PR01: RETS [Radiological Effluent Tracking System]/ODCM [Offsite Dose Calculation Manual] Radiological Effluent Occurrences – 1 Sample (April 1, 2017 through June 30, 2018).

71152—Problem Identification and Resolution

Semiannual Trend Review (1 Sample)

The inspectors reviewed the licensee's corrective action program for trends that might be indicative of a more significant safety issue.

Annual Follow-Up of Selected Issues (1 Sample)

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

- (1) Safety Conscious Work Environment (SCWE) issues in Security. In 2017, some security officers were identified as being reluctant to enter deficiencies into the Corrective Action Program (CAP). The site implemented actions to ensure officers would enter items into the CAP. In order to assess the licensee's actions, the inspectors performed a selected issue follow-up inspection sample. The inspectors conducted a limited Safety Culture assessment of the security force. The assessment consisted of interviews with security officers from all shifts and various members of security supervision. The inspectors used Appendix C, "Guidance for Gathering SCWE and PI&R insights," of Inspection Procedure (IP) 71152, "Problem Identification and Resolution," for guidance in completing this independent assessment.

INSPECTION RESULTS

71111.12—Maintenance Effectiveness

| Inadequate Procedure Leads to Electrohydraulic Control Leak and Rapid Downpower | | | |
|--|---|----------------------|---|
| Cornerstone | Significance | Cross-Cutting Aspect | Report Section |
| Initiating Events | Green FIN 05000315/2018004–01 Open and Closed | None | 71111.12— Maintenance Effectiveness |
| <p>Introduction: A self-revealed finding of very low safety significance (Green) was identified when a hydraulic leak in the main feed pump controls resulted in operators performing a manual rapid downpower prior to the trip of the pump.</p> | | | |
| <p><u>Description:</u></p> <p>On July 14, 2018, the Unit 1 control room received unexpected alarms associated with the west main feedwater pump. The alarms alerted plant operators to the movement of the trip block assembly spool valve out of its normal reset position when it is in operation. The operator dispatched to investigate the alarm reported an Electrohydraulic Control (EHC) leak on the spool valve assembly. Unit 1 operators subsequently performed a rapid downpower to remove the pump from service. After power decreased to about 55 percent, operators secured the west main feedwater pump.</p> <p>After stabilizing the plant at about 60 percent power, the licensee investigated the leak. The investigation revealed that an o-ring on the spool valve had extruded from the spool valve top cover. The licensee could not immediately determine why this had occurred and contacted the vendor to inspect the o-ring. The vendor analyzed the failed o-ring as well as a new and a used o-ring. The vendor concluded that the ring had been extruded as a result of either improper gap control or insufficient o-ring hardness. The licensee reviewed the vendor report and determined the most likely cause was improper gap control. During the repair of the trip block assembly following the event, the licensee reported that two of the six bolts in the top cap had less than the required torque with additional examples of insufficient torque on other spool trip valves. Because no foreign material could be found on any mating surfaces, the licensee concluded that during trip block spool valve assembly in November 2017, oil used to lubricate the o-rings had dripped onto the valve mating surfaces and, as a result, when torqued the oil drops became trapped prior to the full closure of any gaps. In this scenario, when the EHC system warmed up, as is the case when placed in service, the oil evaporated, which resulted in the bolts losing torque. The resulting gap in the top plate caused the subsequent extrusion of the o-ring.</p> <p>The licensee determined that the work orders used during the maintenance performed in November 2017 did not contain guidance to ensure fluid was not present on the mating surfaces prior to assembly. Licensee procedure PMP–2291–PLN–001, Work Control Activity Planning Process, Revision 74, contained requirements for work instructions, which included the development of instructions that can be followed by a qualified worker such that the work is satisfactory and safe. In this case, the instructions did not provide direction to ensure mating surfaces were free from contaminants.</p> | | | |

Corrective Action: Following the downpower, the licensee replaced the o-rings for the trip block assembly spool valves that maintenance was performed on in November 2017. As part of their long-term corrective actions, the licensee modified model work orders to ensure mating surfaces were free from oil prior to assembly.

Corrective Action References: AR-2018-5113, AR-2018-5280

Performance Assessment:

Performance Deficiency: The failure to include work instructions sufficient for qualified maintenance workers to safely and satisfactorily perform work activities was a performance deficiency. In particular, licensee procedure PMP-2291-PLN-001 required the planner to “create instructions with a level of detail required to provide technically accurate instructions such that a qualified maintenance worker can safely and satisfactorily complete the work activity with no guidance.” In this case, the licensee failed to include instructions sufficient to preclude oil from becoming trapped on mating surfaces. This failure resulted in unsatisfactory work performance in that the component failed prematurely and resulted in an unplanned transient (i.e. rapid downpower).

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Procedure Quality attribute of the Initiating Events cornerstone, and adversely impacted the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, a rapid downpower was required due to the loss of EHC pressure. If a downpower had not been performed, the main feed pump would have tripped and required automatic actions initiated by controls systems to rapidly reduce power.

Significance: The inspectors assessed the significance of the finding using SDP Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” The inspectors referenced Exhibit 1 since the finding impacted the Initiating Events cornerstone. The issue screened as having very low safety significance (i.e., Green) based on answering ‘No’ to all of the questions in the “Transient Initiator” section since the finding did not result in the loss of any mitigation equipment.

Cross-Cutting Aspect: The finding did not include a cross cutting aspect since the model work order had not been recently updated.

Enforcement:

The inspectors did not identify a violation of regulatory requirements associated with this finding.

71111.15—Operability Determinations and Functionality Assessments

| Licensee Identified Non-Cited Violation | 71111.15—Operability Determinations and Functionality Assessments |
|---|---|
| A violation of very low safety significance was identified by the licensee, has been entered into the licensee's CAP, and is being treated as a Non-Cited Violation (NCV), consistent with Section 2.3.2 of the Enforcement Policy. | |
| <p><u>Enforcement:</u></p> <p>Violation: Technical Specification (TS) 5.4, Procedures, requires that written procedures be established, implemented and maintained as recommended in Regulatory Guide 1.33, Quality Assurance Program Requirements, which includes procedures for surveillance testing.</p> <p>Contrary to the above, the licensee failed to maintain surveillance testing procedures for operation of the auxiliary building engineered safety feature ventilation fans. Specifically, the licensee used an incorrect instrument span multiplier for determining engineered safety feature ventilation flow in procedure 1–HV–AES–1/2, Engineered Safety Feature Ventilation Surveillance. This procedure contains instructions for adjusting flow in the system to ensure adequate flow is available to ensure atmospheric release during a design bases accident do not exceed 10 CFR 67 limits. The procedure includes a calculation to determine flow rate based on differential pressure. This procedure included the span of the installed instrumentation, but incorrectly used a span of 32,000 cubic feet per minute (cfm) vice 31,000 cfm. This increase in span resulted in overstating flow in the system. This error resulted in rendering the system inoperable for 3 days.</p> <p>Significance/Severity Level: The inspectors determined the performance deficiency was more than minor because it adversely affected the Mitigating Systems cornerstone objective of ensuring the capability of systems that respond to initiating events. The performance deficiency is associated with the attribute of procedure quality. The inspectors assessed the significance of the finding using SDP Appendix A and concluded the violation was of very low safety significance (i.e., Green). In this instance, the licensee determined that for a 3 day period, flow did not meet surveillance requirements for flow; therefore, the fan was not operable. Since the completion time for the applicable condition allowed 7 days, the condition was not reportable.</p> <p>Corrective Action Reference: AR–2018–4690</p> | |

71152—Problem Identification and Resolution

| Observation | 71152—Semi Annual Trend Review |
|--|--------------------------------|
| During a maintenance effectiveness review, the inspectors identified weaknesses in the licensee's component dedication of parts. During the fourth quarter, the licensee's Nuclear Oversight department also identified weaknesses in component dedication. In some instances parts were accepted despite not meeting requirements included in the dedication plan. The licensee entered this issue into their CAP. None of the identified weaknesses resulted in inoperable equipment. Therefore, this issue is minor and is not subject to enforcement action in accordance with the NRC's enforcement policy. | |

EXIT MEETINGS AND DEBRIEFS

The inspectors confirmed that proprietary information was controlled to protect it from public disclosure. No proprietary information was documented in this report.

- On January 16, 2019, the inspectors presented the quarterly integrated inspection results to Mr. J. Gebbie, Senior Vice President and Chief Nuclear Officer, and other members of the licensee staff;
- On October 16, 2018, the inspectors presented emergency preparedness program inspection results to Ms. K. Ferneau, Plant Manager, and other members of the licensee staff;
- On November 27, 2018, the inspectors presented emergency preparedness inspection results to Mr. M. Scarpello, Regulatory Assurance Director, and other members of the licensee staff; and
- On November 29, 2018, the inspector presented radiation protection program inspection results to Ms. K. Ferneau, Plant Manager, and other members of the licensee staff.

DOCUMENTS REVIEWED

71111.01—Adverse Weather Protection

- 12-IHP-5040-EMP-004; Plant Winterization and De-Winterization; Revision 23
- 12-OHP-4022-001-010; Severe Weather; Revision 21
- 1-OHP-4021-057-002; Placing In/Removing From Service Circulating Water De-Ice

71111.04—Equipment Alignment

- 12-OHP-4021-018-002, Placing in Service and Operating the Spent Fuel Pool Cooling System, Revision 32
- 2-OHP-4021-056-001, Filling and Venting Auxiliary Feedwater System, Revision 34
- AR 2018-10724, Extended Off-Normal Position of the CST Cross-Tie Valve, November 28, 2018
- OP-1-12001-91, Main Auxiliary One Line Diagram Bus C and D Engineered Safety System (Train A), Revision 73
- OP-1-12002-91, Main Auxiliary One Line Diagram Bus C and D Engineered Safety System (Train A), Revision 91

71111.05AQ—Fire Protection Annual/Quarterly

- Drill 418-025-A, MCC Electrical Fire, Revision 0
- Fire Pre-Plans Volume 1, Revision 32

71111.11—Licensed Operator Requalification Program and Licensed Operator Performance

- 12-OHP-4021-082-018, Racking In and Out Reactor Trip, Reactor Trip Bypass, and MG Set Output Breakers, Revision 14
- 1-IHP-4030-111-011A, Train A SSPS Automatic Trip and Actuation Logic Operational Test (TADOT, Actuation Logic Test and Master Relay Test) and Reactor Trip Breaker Operational Test (TADOT), Revision 11
- AR-2018-10751, Wrong Fuses Pulled During SSPS Testing, 11/29/2018
- Drawing OP-1-98222-31, Control Rod Drive MG Set #1S and Reactor Trip Breakers Elementary Diagram

- Pre-Job Brief Package for Racking DB-50 Style Breakers

71111.12—Maintenance Effectiveness

- AR 2016-11880; TDAFP Oil Pump Shaft Found Bent During Inspections; 10/17/2016
- AR 2017-11793; 1-FMO-221 Did Not Go to Intermediate Position as Required; 11/18/2017
- AR 2017-12334; TDAFP Turbine (1-OME-39) Bearing Oil Level Above Max Limit; 11/30/2017
- AR 2017-1281; TDAFP Failed to Achieve Rated Speed on Start/ 02/02/2017
- AR 2017-13059; U1 TDAFP Failed Surveillance; Failed to Reach Rated Speed; 12/21/2017
- AR 2017-13158; U1 TDAFP Governor Coupling Stop Ring Not Installed; 12/28/2017
- AR 2017-8509; Clearance Tag on Wrong Component/ 09/06/2017
- AR 2017-8921; 1-MDFPX2B Relay Failed Testing; 09/16/2017
- AR 2018-5779; Unit 1 East Main Feed Pump TB B Wear Hi Received; 05/28/2018
- AR 2018-6929; Unit 1 Unexpected Alarm; 07/07/2018
- AR 2018-7148; EHC Leak Unit 1 Trip Block Assembly Spool A; 07/14/2018
- AR 2018-7781; Unexpected Control Room Alarm; 08/06/2018
- AR 2018-8554; T1AC Compressor May Not be Functioning; 09/07/2017
- AR 2018-8980; 1-OME-84w-TBA; Springs Need to Be Replaced; 09/17/2017
- AR 2018-9320; Evaluation of Calibration Method of ½-sg-7; 10/02/2018
- AR-2018-1614; Turbine Driven Auxiliary Feedwater Pump Governor Oil Level High; 02/16/2018
- ASP Tag 26469; Receipt Inspection Report; 03/11/2002
- EC-0000055959; Replace Valve 1-FW-176; Revision 0
- Evaluation Number 00029141; Revision 0
- Maintenance Rule Scoping Document for AFW
- Maintenance Rule Scoping Document for Main Feedwater System; Revision 2
- PMP-2291-PLN-001, Work Control Activity Planning Process, Revision 74
- System IQ Report on Units 1 and 2 Main Feedwater System; 08/13/2018
- Unit 1 and 2 Bearing Vibrations Trend 07/27/2017 through 08/16/2018
- WO 55508298; 1-FW-176; Turbine Driven Auxiliary Feed Pump PP-4 Suction Header Vent Valve; 11/06/2017

71111.13—Maintenance Risk Assessments and Emergent Work Control

- 12-OHP-5030-057-001, Screen House Vulnerability Determination, Revision 33
- Clearance N-4KVAC-4KVA-1921, 4KV Busses 1C & 1D Reserve Feed Auxiliary Transformer
- Clearance N-4KVAC-4KVA-1922, 4KV Busses 1C & 1D Reserve Feed Auxiliary Transformer
- Drawing OP-2-12051-30, 120VAC Critical Control Room Power Cabinets “CCRP-1” thru “CCRP-3” 120/280V AC Computer Power Supply System Balance of Plant
- Various Station Workweek Schedules for 11/25/2018 through 12/01/2018
- Various Station Workweek schedules for 11/5/2018 through 11/12/2018

71111.15—Operability Determinations and Functionality Assessments

- 1-IHP-4030-128-004A/B, 1-HV-AES Engineered Safety Feature Ventilation Surveillance, Revision 3
- AR-2018-10074, Increased Unit 1 CCW Out-Leakage, 10/31/2018
- AR-2018-4690, 1-HV-AES-2 is Inoperable for Flow Adjustment, April 27, 2018
- AR-2018-6093 Troubleshooting Documentation Sheet, 10/30/2018
- AR-2018-8435, Out of Spec Resistance Reading on 1-T11D6, 08/27/2018
- AR-2018-8910, 2-T21A1 Closing Coil Resistance Unsat, 09/16/2018
- AR-2018-9690, 1-OME-150-AB Fuel Line Leak Near #6 Rear Fuel Injector, 11/16/2018

- AR-2018-9977, 2-T21A3 Closing Circuit Resistance Out of Spec, 10/27/2018
- AR-2018-9983, 2-T21D5 Closing Circuit Resistance is Out of Spec, 10/28/2018
- ODMI 1-18-001 for AR-2018-6093, Unit 1 CCW Out-Leakage
- OP-1-5135-42, Flow Diagram CCW Pumps and CCW Heat Exchangers
- Various Graphs of Unit 1 CCW Surge Tank Level with Rate-of-Change and 30-day Forecast, from Approximately April 2018 through November 2018
- WO 55523880, 2-SG-7; Calibration-PMT, September 26, 2018

71111.19—Post Maintenance Testing

- 12-FPP-2270-066-006, Reset and Drainage of Dry Pipe and Pre-Action TRM and Non-TRM Fire Protection Water Suppression Systems, Revision 26
- 12-IHP-6030-RLY-022, General Electric Type HFA51 and HFA151 Multi-Contact Auxiliary Relay Adjustment and Maintenance, Revision 20
- 12-MHP-5021-032-018; Emergency Diesel Engine Fuel Injector Maintenance; Revision 13
- 12-MHP-5021-032-041; Emergency Diesel Engine Bendix Fuel Injection Pump Removal and Installation; Revision 14
- 1-OHP-4021-032-001AB; DG1AB Operation; Revision 43
- 1-OHP-4030-114-011, Containment Isolation and IST Valve Operability Test, Revision 35
- 1-OHP-4030-114-049; Hot Shutdown Panel Operability Test; Revision 13
- 1-OHP-4030-114-049; Hot Shutdown Panel Operability Test; Steam Generator PORV Operability Test; Revision 13
- 1-OHP-4030-132-027AB; AB Diesel Generator Operability Test (Train B); Revision 49
- 2-OHP-4021-082-019, Operation of the CCRP Power Supplies, Revision 19
- AR 2018-9743; 1-OME-150-AB, Cylinder 6R and 1R Combustion Pressure Greater than 1450 psig; 10/18/2018
- AR-2018-9805, Ann 202 Drop 118 Did Not Come in as Expected, 10/22/2018
- AR-2018-9829, Component Issues Noticed During Attempted Reset, 10/23/2018
- EC-00000053120-TP-001, North Access Building (NAB) Technical Support Center Ventilation System Functional Test, 11/27/2018
- EC-00000053120 TP-001, North Access Building Technical Support Center Ventilation System Functional Testing, Revision 1 and 2
- OP-12-5152L-36, Fire Protection Water System Details, Turbine Building and Service Building
- OP-1-5105D-11; Flow Diagram Steam Generating System Unit 1; 10/17/2018
- OP-1-5120R-8; Control Air System Auxiliary Building Tapoffs, Unit 1; 11/03/2017
- OP-1-98463-12, Nuclear Sampling System Sheet 1 Elementary Diagram
- OP-2-98063-23, 15KVA STC INV "CCRP-INV" & 120VAC Dist Cabinet "CCRP-1" Elementary Diagram
- WO 55498567; 12-ZFP-324, Flush Crossmains, Assess Corrosion Materials Collected, 10/22/2018
- WO 55508856; 1-MRV-223, Steam Generator OME-3-2 Power Operated Relief Valve; 11/28/2018
- WO 55524698; 1-OME-150-AB Fuel Line Leak Near #6 Rear Fuel Injector, 10/17/2018

71111.22—Surveillance Testing

- 1IHP-4030-128-005A; Train A CEQ Fan Surveillance and ESF Response Time Test; 11/08/2018
- 1-OHP-4030-109-007W; West Containment Spray System Test; Revision 37
- 2-OHP-4030-203-052L, Controlled Leakage Verification Test, Revision 13

- 2-OHP-4030-256-017E, East Motor Driven Auxiliary Feedwater System Test; Revision 12; 11/08/2018
- WO 55525924-01; OPFP: 2-FLEX-PP-103-10 & 11 Visual Inspection; FLEX Blended RCS Makeup Pump; 11/21/2018
- WO 55525927; Standby Walkdown of Large FLEX Diesel Generators; 11/21/2018
- WO 55525928; OPFP, 12-FLEX-PP-103-1 & 2 FLEX Driven Lift PP Visual Inspection; 11/21/2018
- WO 55525929; Standby Walkdown of FLEX Booster Pumps; 11/21/2018

71114.02—Alert and Notification System Testing

- AEP-ANS-2017-1; DC Cook Alert and Notification System Design Report; Revision 1
- ANS Equipment Maintenance Records; April 2016 through August 2018
- ANS Siren Test Data; April 2016 through August 2018
- AR 2016-10838; Missed ANS Opportunity for Weekly Silent Test; 09/29/2016
- AR 2017-1049; Solar Powered Sirens Low Battery Voltage; 01/27/2017
- AR 2017-1931; Weekly Silent Siren Test Error Not Documented; 02/16/2017
- AR 2017-2922; Loss of AC Power to Sirens 1405 & 1407; 03/15/2017
- EPP-2080-ANS-001; Alert and Notification System Operation; Revision 15
- PMP-2080-EPE-001; Conduct of Emergency Preparedness Equipment Inspection and Maintenance; Revision 4

71114.03—Emergency Response Organization Staffing and Augmentation System

- AR 2016-14572; Maintenance ERO Qualifications; 12/20/2016
- AR 2016-4433; Individuals had Quals Entered on PQM Incorrectly; 04/11/2016
- AR 2017-0909; Vacant ERO Position-Control Room Communicator from Illness; 01/24/2017
- AR 2018-5006; OSC Non-Functional; 06/03/2018
- EPP-2080-ERO-002; Emergency Response Organization Notification System Activation and Testing; Revision 7
- Unannounced Drill Evaluation Reports; April 2016 – August 2018

71114.04—Emergency Action Level and Emergency Plan Changes

- CNP ERO Upgrade ERO Position Comparison and Evaluation, Enclosure 2; 12/19/17
- Donald C. Cook Nuclear Plant Emergency Plan; Revisions 38 and 39
- PMP-2080-EPP-101; Emergency Classification; Revision 21
- RMA-2080-EPA-008; 10 CFR 50.54(q) Screening Form, Screening #17-50; 01/12/2018
- RMA-2080-EPA-008; 10 CFR 50.54(q) Screening Form, Screening #18-02; 05/17/2018
- RMA-2080-EPA-008; 10 CFR 50.54(q) Screening Form, Screening #18-03; 06/14/2018

71114.05—Maintenance of Emergency Preparedness

- AR 2016-10548; FPB EAL Chosen by ERO Does Not Match Predicted FPB EAL; 09/20/2016
- AR 2016-7865; U2 B Right MSR Expansion Joint Failure; 07/06/2016
- AR 2016-8583; Controllers/Evaluators Did Not Meet Expectations; 07/26/2016
- AR 2017-4049; Controllers Provided Unearned Information During Drill; 04/20/2017
- AR 2017-4900; E-Plan Revision Not Submitted to NRC in 30 Days; 05/12/2017
- AR 2017-5882; NRC Observations Recorded During 2017 Exercise Management Critique; 06/13/2017
- AR 2017-9349; Clarification Required for E-Plan and Stuck Open SG PORV; 09/23/2017
- AR 2018-4260; EP GAP: No Process for Generating Actual Event Reports; 04/18/2018

- AR 2018-7277; MIDAS Dose Assessment Program (DAP) Software Output; 07/17/2018
- AR2017-2042; Missing Information from Completed Records; 02/20/2017
- Donald C. Cook Nuclear Plant Emergency Plan; Revision 39
- PMP-2080-EPP-101; Emergency Classification; Revision 21
- Unusual Event Declaration Evaluation Report; 04/26/2017
- Unusual Event Declaration Evaluation Report; 09/02/2018

71124.02—Occupational As Low As Reasonably Achievable Planning and Controls

- 12-THP-6010-RPP-407; Special Radiological Evolutions; Revision 36
- AR 2018-3846; Documenting Incomplete Decontamination; 04/06/2018
- AR 2018-4861; Worker Given Incorrect RWP; 05/01/2018
- AR 2018-6541; Dry Cask MPC Lid Insert Stuck During Installation; 06/22/2018
- AR 2018-6699; Increased Dose Rate Seen in the Annulus Gap Between the Hi-STORM and the MPC Lid; 06/27/2018
- Dry Cask Storage Project Timeline; 07/10/2018
- PMP-6010-RPP-003; High, Locked High, and Very High Radiation Access; Revision 29
- RWP 182101 and ALARA Plan; U2C24 Reactor Disassembly Activities; Task No. 1 through No. 7; Revision 2
- RWP 182102 and ALARA Plan; Reactor Reassembly Activities; Task No. 1 through No. 7; Revision 3
- RWP 182103 and ALARA Plan; U2C24 Fuel Shuffle and Support Work; Task No. 1 through No.3; Revision 1
- RWP 182105 and ALARA Plan; U2C24 Reactor Baffle Bolt Inspection and Repair Activities to Include Lower Internal Movements; Task No.1 through No. 10; Revision 2
- RWP 182174 and ALARA Plan; U2C24 Containment Minor Engineering Change Modification and Support Work; Revision 0
- RWP 184003 and ALARA Plan; Dry Cask Storage Project; Revision 6
- U2C24 Refueling Outage ALARA Report; 06/19/2018

71124.05—Radiation Monitoring Instrumentation

- 12-THP-6010-RPC-515; Calibration of the Eberline Model AMS-4; Instrument No. AMS4-513; 01/31/2018
- 12-THP-6010-RPC-515; Calibration of the Eberline Model AMS-4; Instrument No. AMS4-461 05/20/2017
- 12-THP-6010-RPC-515; Calibration of the Eberline Model AMS-4; Instrument No. AMS4-461 05/24/2018
- 12-THP-6010-RPC-517; Calibration of Portable Doserate Instrument; RO20-350; 07/11/2018
- 12-THP-6010-RPC-517; Calibration of Portable Doserate Instrument; RO20-12647; 01/02/2018
- 12-THP-6010-RPC-570; Calibration of the Canberra ARGOS-5 Personnel Monitor; Instrument No. ARGOS-4; 08/07/2018
- 12-THP-6010-RPC-570; Calibration of the Canberra ARGOS-5 Personnel Monitor; Instrument No. ARGOS-1; 06/22/2018
- 12-THP-6010-RPC-588; Calibration of MGP TelePole Wide Range; TP-051; 10/10/2018
- 12-THP-6010-RPC-588; Calibration of MGP TelePole Wide Range; TP-052; 09/25/2018
- 12-THP-6010-RPC-588; Calibration of MGP TelePole Wide Range; TP-064; 09/25/2018

71151—Performance Indicator Verification

- 2018 PID Excellence Plan; Undated

- AEP-NRC-2018-05; D.C. Cook Units 1 and 2 – 4Q2017 – PI Data Elements (QR and CR); 01/22/2018
- AEP-NRC-2018-28; D.C. Cook Units 1 and 2 – 1Q2018 – PI Data Elements (QR and CR); 04/13/2018
- AEP-NRC-2018-58; D.C. Cook Units 1 and 2 – 2Q2018 – PI Data Elements (QR and CR); 07/19/2018
- AEP-NRC-2018-77; D.C. Cook Units 1 and 2 – 3Q2018 – PI Data Elements (QR and CR); 10/17/2018
- AP-2018-1237; Procedure Change Request Related Actions Per PMP-2010-PRC-002; Regarding Loss of RHR AOP- Addition Regarding RH-130; 02/07/2018
- AR 2016-6384; Drill and Exercise Performance (DEP) Opportunities Removed; 05/17/2016
- AR 2017-6512; Adverse Trend in ERO DEP Indicator Performance; 07/05/2017
- AR 2018-6917; Potential Commonality in Recent Repeat Events; 07/05/2018
- AR-2018-4973; 2-IMO-270 Would Not Open from the Control Room; 05/03/2018
- Component Detail Report for 1-pp-35e; 12/18/2018
- Component Detail Report for 1-pp-35W; 12/18/2018
- Component Detail Report for 1-pp-7e; 12/18/2018
- Component Detail Report for 1-pp-7W; 12/18/2018
- Component Detail Report for 2-pp-35e; 12/18/2018
- Component Detail Report for 2-pp-35W; 12/18/2018
- Component Detail Report for 2-pp-7e; 12/18/2018
- Component Detail Report for 2-pp-7W; 12/18/2018
- Cook Unit 1 Margin Report for Period Ending 10/2018
- Cook Unit 2 Margin Report for Period Ending 10/2018
- DB-12-ECCS; Design Basis Document for the Emergency Core Cooling System; Revision 11
- Maintenance Rule Unavailability Performance Status; Week Beginning 12/17/2018
- NRC Performance Indicator Data; Emergency Preparedness – Alert and Notification System Reliability; 2nd Quarter 2017 – 2nd Quarter 2018
- NRC Performance Indicator Data; Emergency Preparedness – Drill/Exercise Performance; 2nd Quarter 2017 – 2nd Quarter 2018
- NRC Performance Indicator Data; Emergency Preparedness – ERO Readiness; 2nd Quarter 2017 – 2nd Quarter 2018
- Operator Logs 1 October 2017 through 30 September 2018 for LCOs 3.7.7 and 3.7.8
- PMP-7110-PIP-001; Reactor Oversight Program Performance Indicators and Monthly Operating Report Data; RETS/ODCM Radiological Effluent Occurrences; Data Reviewed from 2nd Quarter of 2017 through 2nd Quarter of 2018
- PMP-7110-PIP-001; Reactor Oversight Program Performance Indicators and Monthly Operating Report Data; Occupational Exposure Control Effectiveness; Data Reviewed from 2nd Quarter of 2017 through 2nd Quarter of 2018
- PRA-MSPI-BASIS; MSPI Basis Document; Revision 15
- System IQ System Database; week of 12/17
- Various Operating Logs; 7/1/2017 through 09/30/2018

71152—Problem Identification and Resolution

- AR 2017-6793; 1-IFI-315 East RHR Pump Flow Indication Near Low Action; 07/13/2017
- AR 2018-9759; Loss of Misc Sealing and Cooling Water HERB Summary; 11/18/2018
- Area Requiring Management Attention ARM-18-10-01; 10/18/18
- ARM-18-11-01, Storage of Quality Assurance (QA) Records; 11/6/2018
- Nuclear Oversight Quarterly Report for July – September 2018
- Nuclear Oversight Roll-up Report; 10/15/2018

- Nuclear Oversight Roll-up Report; 8/30/2018 – 9/27/2018
- Nuclear Oversight Semi-Monthly Roll-up Report; /22/2018 – 7/11/2018
- Nuclear Oversight Semi-Monthly Roll-up Report; 5/11/2018 – 5/31/2018
- Nuclear Oversight Semi-Monthly Roll-up Report; 6/1/2018 – 6/21/2018
- Nuclear Oversight Semi-Monthly Roll-up Report; 8/1/2018 – 8/15/2018
- Nuclear Oversight Semi-Monthly Roll-up Report; 8/16/2018 – 8/29/2018