



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

February 7, 2022

EA-21-142

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

SUBJECT: DONALD C. COOK NUCLEAR PLANT – INTEGRATED INSPECTION REPORT
05000315/2021004 AND 05000316/2021004 AND EXERCISE OF
ENFORCEMENT DISCRETION

Dear Mr. Gebbie:

On December 31, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Donald C. Cook Nuclear Plant. On January 12, 2022, 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.

Two findings of very low safety significance (Green) are documented in this report. None of these findings involved a violation of NRC requirements.

Licensee-identified violations which were determined to be of very low safety significance and Severity Level IV are documented in this report. We are treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violations or the significance or severity of the violations documented in this inspection report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement; and the NRC Resident Inspector at Donald C. Cook Nuclear Plant.

If you disagree with 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 Donald C. Cook Nuclear Plant.

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

Sincerely,



Signed by Feliz-Adorno, Nestor
on 02/07/22

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

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

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

Letter to Joel. P Gebbie from Néstor J. Félix Adorno dated February 7, 2022.

SUBJECT: DONALD C. COOK NUCLEAR PLANT – INTEGRATED INSPECTION REPORT
05000315/2021004 AND 05000316/2021004 AND EXERCISE OF
ENFORCEMENT DISCRETION

DISTRIBUTION:

Jessie Quichocho
Linda Howell
RidsNrrDorlLpl3
RidsNrrPMDCCook Resource
RidsNrrDrolrib Resource
John Giessner
Mohammed Shuaibi
Shelbie Lewman
Kenneth Lambert
Allan Barker
DRPIII
DRSIII

ADAMS ACCESSION NUMBER: ML22027A547

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RIII	RIII	RIII		
NAME	RNg:ve	SLewman	NFélixAdorno		
DATE	1/31/2022	2/06/2022	2/07/2022		

OFFICIAL RECORD COPY

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

Docket Numbers: 05000315 and 05000316

License Numbers: DPR-58 and DPR-74

Report Numbers: 05000315/2021004 and 05000316/2021004

Enterprise Identifier: I-2021-004-0085

Licensee: Indiana Michigan Power Company

Facility: Donald C. Cook Nuclear Plant

Location: Bridgman, MI

Inspection Dates: October 01, 2021 to December 31, 2021

Inspectors: S. Bell, Health Physicist
M. Garza, Emergency Preparedness Inspector
J. Mancuso, Resident Inspector
P. Zurawski, Senior Resident Inspector

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

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee’s performance by conducting an integrated inspection at Donald C. Cook Nuclear Plant, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC’s program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information. Licensee-identified non-cited violations are documented in report sections: 71152 and 71153.

List of Findings and Violations

Incorrect Circulating Water Torque Tube Wall Thickness			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Initiating Events	Green FIN 05000315,05000316/2021004-01 Open/Closed	None (NPP)	71111.12
A Green finding was self-revealed associated with the licensee failure to translate the 13 Circulating Water Pump (CWP) discharge valve torque tube wall thickness into applicable documents in accordance with licensee procedure EHI-5045, “Design Control,” Revision 10. As a result, the torque tube failed on July 21, 2021.			

Failure to Follow Corrective Action Procedure			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Initiating Events	Green FIN 05000316/2021004-02 Open/Closed	None (NPP)	71152
A Green finding was self-revealed when the licensee failed to follow procedure PMP-7030-CAP-002, “Condition Action and Closure,” Revision 33. Specifically, the licensee failed to obtain Corrective Action Review Board (CARB) concurrence for closing a corrective action assignment to actions other than originally prescribed.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
EDG	EA-21-142	Failure to Comply with 10 CFR Part 37	71124.08	Closed
LER	05000316/2021-001-00	LER 05000316/2021-001-00 for Donald C. Cook Nuclear Plant Unit 2, Main Steam Safety Valve Setpoints Found Outside Technical Specifications Limits	71153	Closed
LER	05000316/2021-002-00	LER 05000316/2021-002-00 for Donald C. Cook Nuclear Plant Unit 2, Manual Reactor Trip Due to An Unisolable Steam Leak	71153	Closed

PLANT STATUS

Donald C. Cook began the inspection period with both Unit 1 and Unit 2 operating at approximately 100 percent power and, with the following exceptions, remained at that level throughout the inspection period. On December 10, 2021, Unit 2 power was reduced to approximately 89 percent for scheduled main turbine testing and main feed pump maintenance. The unit was returned to 100 percent on December 11, 2021. On December 17, 2021, Unit 1 power was reduced to approximately 97 percent for scheduled main turbine and main feed pump stop and control valve testing and secondary pump swaps. The unit was returned to 100 percent on December 18, 2021.

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 activities described in IMC 2515, Appendix D, "Plant Status," conducted routine reviews using IP 71152, "Problem Identification and Resolution," observed risk significant activities, and completed on-site portions of IPs. 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

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (1 Sample)

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

- (1) Unit 1 and 2 Emergency Diesel Generators (EDGs) (1AB, 1CD, 2AB, 2CD) due to Geomagnetic Storm Warning on November 4, 2021.

Complete Walkdown Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated system configurations during a walkdown of the Unit 1 Chilled Water System on October 19, 2021.

71111.05 - Fire Protection

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

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

- (1) Fire Zone 54; Unit 2 Control Room, Elevation 633' -0" on October 25, 2021
- (2) Fire Zones 144 & 145; Hot Shutdown Panel for Unit 1 and Hot Shutdown Panel for Unit 2 on October 26, 2021
- (3) Fire Zone 44S; Auxiliary Building South Both Units, Elevation 609' on November 4, 2021
- (4) Fire Zone 34B; Non-Essential Service Water Valve Area, Unit 2 Elevation 612' on November 4, 2021

71111.06 - Flood Protection Measures

Inspection Activities - Internal Flooding (IP Section 03.01) (1 Sample)

The inspectors evaluated internal flooding mitigation protections in the:

- (1) Unit 2 Containment Spray and Residual Heat Removal Rooms (Train A & B) on October 19, 2021

Cable Degradation (IP Section 03.02) (1 Sample)

The inspectors evaluated cable submergence protection in:

- (1) Unit 1 Wet Cable Inspection of Motor Control Centers 1-AB-C, 1-ABV-A, 1-AB-C1, 1-AB-D, 1-AB-D1, 1-AB-B, and 1-AB-A on December 16, 2021

71111.07A - Heat Sink Performance

Annual Review (IP Section 03.01) (1 Sample)

The inspectors evaluated readiness and performance of:

- (1) Unit 1 and 2 Component Cooling Water Heat Exchanger Leakage on November 15, 2021

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (3 Samples)

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

- (1) 13 Circulating Water Pump Discharge Valve on July 8, 2021
- (2) 2-DR-AUX320; Degraded Door Structure and Skin Separation on September 28, 2021
- (3) NOS-21-04; Material Control and Measuring on November 11, 2021

Quality Control (IP Section 03.02) (1 Sample)

The inspectors evaluated the effectiveness of maintenance and quality control activities to ensure the following SSC remains capable of performing its intended function:

- (1) East Diesel Fire Pump, September 27, 2021 through November 18, 2021

Aging Management (IP Section 03.03) (1 Sample)

The inspectors evaluated the effectiveness of the aging management program for the following SSCs that did not meet their inspection or test acceptance criteria:

- (1) Fire Protection Program, September 29, 2021, through November 18, 2021

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (4 Samples)

The inspectors evaluated the accuracy and completeness of risk assessments for the following planned and emergent work activities to ensure configuration changes and appropriate work controls were addressed:

- (1) High risk for protective relays for FXMR 2-TR21 and Breaker TR21 on October 6, 2021
- (2) Cycle 120, Week 02 with Essential Service Water (ESW) Strainer maintenance and Unit 2 CD EDG surveillance on October 12, 2021
- (3) Action Request (AR) 2021-8739: Unit 1 1-NLI-321 Lower Containment Train 'A' Water Level Indicator Transmitter Failure High on October 22, 2021
- (4) AR 2021-8801: Unit 2 Train A Distributed Ignition System Ignitor Failure on October 26, 2021

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (5 Samples)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

- (1) AR 2021-8243; Packing Leak on 2-ICM-265 on October 12, 2021
- (2) AR 2021-8280; Slow Rising Trend on Unit 1 Boron Injection Tank Discharge Pressure on October 12, 2021
- (3) AR 2021-8634; SML-18 Drop 15 (C-9 Status Light not lit, CRID-IV Circuit 10 Fuse Blown) on October 19, 2021
- (4) AR 2021-9104 1-HV-ACR-2 U1 South Control Room AC Chiller Keeps Tripping on November 16, 2021
- (5) AR 2021-9202 2- HV-AFP-T1AC Turbine Driven Auxiliary Feedwater Pump Room Cooler ESW Leak on November 17, 2021

71111.18 - Plant Modifications

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

The inspectors evaluated the following temporary or permanent modifications:

- (1) Engineering Change (EC)-1000192; 34.5 kV Train B Loop Feed Enclosure Permanent Heater and Partial Discharge Monitor Installation on November 22, 2021
- (2) EC-0000058237; 1-FW-124 East Motor Driven Auxiliary Feedwater Pump PP-3 East Suction Check Valve Replacement on December 6, 2021

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (9 Samples)

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

- (1) East Diesel Fire Pump after maintenance 12-MHP-4030-066-002 on October 4, 2021
- (2) Unit 2 Containment Chiller 'C' on October 1, 2021
- (3) Unit 2 Train 'A' Distributed Ignition System Train 'A' Igniter Replacement on October 26, 2021
- (4) Unit 1 1-NLI-321 Lower Containment Train A Water Level Transmitter failure and replacement of output board on October 27, 2021
- (5) 2-62-2-PTR CO2 Discharge Time Delay Relay after replacement on October 27, 2021
- (6) Unit 1 CD EDG test on November 3, 2021
- (7) South Control Room Air Conditioning return to service on November 9, 2021
- (8) Unit 1 Essential Service Water post-maintenance test on November 10, 2021
- (9) Unit 1 1-MRA-1701 Steam Generator #2 Radiation Monitor on November 15, 2021

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Surveillance Tests (other) (IP Section 03.01) (1 Sample)

- (1) Unit 1 East Motor Driven Auxiliary Feedwater Pump on October 7, 2021

Inservice Testing (IP Section 03.01) (3 Samples)

- (1) Unit 2 Steam Generator Stop Valve Dump Valve Surveillance Test on October 25, 2021
- (2) Unit 1 1AB Starting Air Compressor 1-QT-142-AB1 Outlet Check Valve Test on November 22, 2021
- (3) Unit 1 Containment Spray 85# Control Air Ring Header #1 Safety Valve on November 23, 2021

Containment Isolation Valve Testing (IP Section 03.01) (1 Sample)

- (1) Unit 2 Containment Airlock Test on October 19, 2021

FLEX Testing (IP Section 03.02) (1 Sample)

- (1) Functional test and inspection of large Flex Diesel Generators on December 6, 2021

71114.04 - Emergency Action Level and Emergency Plan Changes

Inspection Review (IP Section 02.01-02.03) (1 Sample)

- (1) The inspectors evaluated the following submitted Emergency Action Level and Emergency Plan changes.
 - #20-26, Evaluation Form, October 6, 2020
 - #20-26 Revision 1, Screening Form, January 1, 2021
 - #20-56, Screening Form, April 28, 2021
 - #21-01, Screening and Evaluation Forms, April 29, 2021
 - #21-02, Screening Form, January 1, 2021
 - #21-13, Screening and Evaluation Forms, May 12, 2021
 - #21-18, Screening Form, May 6, 2021

This evaluation does not constitute NRC approval.

RADIATION SAFETY

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

Radioactive Material Storage (IP Section 03.01) (1 Sample)

The inspectors evaluated the licensee's performance in controlling, labeling, and securing the following radioactive materials:

- (1) Radioactive Materials Storage Building

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

MS06: Emergency AC Power Systems (IP Section 02.05) (2 Samples)

- (1) Unit 1 (October 1, 2020 through September 30, 2021)
- (2) Unit 2 (October 1, 2020 through September 30, 2021)

BI02: RCS Leak Rate Sample (IP Section 02.11) (2 Samples)

- (1) Unit 1 (October 01, 2020 thru September 30, 2021)
- (2) Unit 2 (October 01, 2020 thru September 30, 2021)

71152 - Problem Identification and Resolution (PI&R)

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

- (1) The inspectors reviewed the licensee's corrective action program for potential adverse trends in fire protection that might be indicative of a more significant safety issue.

Annual Follow-Up of Selected Issues (IP Section 02.03) (2 Samples)

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

- (1) AR 2021-5596; Unit 2 Manual Reactor Trip due to Unisolable Main Steam Leak on July 8, 2021
- (2) AR 2021-8808; Discrepancy Identified in SFP Inventory on October 26, 2021

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 (LERs):

- (1) LER, 05000316/2021-001-00 MSSV Setpoint Found Outside Technical Specification Tolerance, (ADAMS Accession No. [ML21161A329](#)). 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 inspection conclusions associated with this LER are documented in this report under Inspection Results Section 71153.
- (2) LER 05000316/2021-002-00, Manual Reactor Trip due to an Unisolable Steam Leak, (ADAMS Accession No. [ML21230A251](#)). The inspection conclusions associated with this LER are documented in this report under Inspection Results Section 71152.

INSPECTION RESULTS

Incorrect Circulating Water Torque Tube Wall Thickness			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Initiating Events	Green FIN 05000315,05000316/2021004-01 Open/Closed	None (NPP)	71111.12
<p>A Green finding was self-revealed associated with the licensee failure to translate the 13 Circulating Water Pump (CWP) discharge valve torque tube wall thickness into applicable documents in accordance with licensee procedure EHI-5045, “Design Control,” Revision 10. As a result, the torque tube failed on July 21, 2021.</p> <p><u>Description:</u></p> <p>On July 21, 2021, the Unit 1 control room heard a loud noise and observed lowering of vacuum on the main condenser, forebay level rise, and shaking of the 13 CWP. In response, operators reduced power to approximately 90 percent. The licensee determined the failure was associated with the 13 CWP discharge valve, which required a maintenance outage for repair. The licensee concluded the discharge valve torque tube failed due to wall thickness being Schedule 40, rather than Schedule 80, and continual fluttering leading to higher torsional fatigue.</p> <p>The licensee cause evaluation operating experience review identified similar torque tube failures had previously occurred. For example, on August 19, 2001, the torque tube split at the valve/torque tube interface. This failure prompted the licensee to issue Equivalency Evaluation (EE) EE-2001-0270 and Design Information Transmittal (DIT) DIT-S-00978-05 for the torque tubes. Both documents included an attached letter from the vendor stating that the recommended wall thickness of the torque tubes was Schedule 80. A second example occurred on September 24, 2014, when 13 CWP discharge valve failed to close. The licensee discovered that the torque tube had failed because its wall thickness was Schedule 40. The licensee subsequently identified the 2001 EE and DIT did not clearly specify a wall thickness of Schedule 80 for the torque tube. The engineering documents specified Schedule 40 while the attached vendor letter recommended Schedule 80. AR 2014-11693 identified the issue with an assignment for Design Engineering to review and revise EE-2001-0270 and DIT-S-00978-05 as necessary to specify Schedule 80 for the torque tube.</p>			

Neither document was revised as part of AR 2014-11693 corrective actions. Design Engineering review of EE-2001-270 and DIT-S-00978-05 incorrectly determined a revision was not needed. As a result, the Schedule 80 design input was not translated into the EE/DIT allowing subsequent procurement and use of Schedule 40 piping which ultimately led to the July 2021 torque tube failure.

Corrective Actions: The licensee performed an apparent cause analysis and established corrective actions to: (1) replace other Schedule 40 CW torque tubes; (2) revise the torque tube categorization from Quality Level 4 to 3 which requires torque tube thickness to be measured upon receipt; (3) develop a monitoring schedule for installed Schedule 40 torque tubes prior to their replacement; (4) verify that no in-stock CW torque tubes have a Schedule 40 wall thickness; (5) revise the torque tube Bill of Materials to require Schedule 80 for all CW torque tubes; and (6) validate whether the torque tube design of the 13 CW discharge valve is appropriate for application since the 13 CWP experiences the most turbulent circulating water flow and increased stress conditions.

Corrective Action References: AR 2021-6321

Performance Assessment:

Performance Deficiency: The licensee failure to translate the 13 CWP discharge valve torque tube wall thickness into Engineering Equivalency EE-2001-0270 and Design Information Transmittal DIT-S-00978-05 was contrary to Step 3.1.9 of licensee procedure EHI-5045, "Design Control," Revision 10, and was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, the failure to correctly translate CW torque tube wall thickness has the potential to result in the loss of CW and, thus, the normal heat sink.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The inspectors determined that the finding had very low safety significance (Green) because the finding did not cause a reactor trip AND the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition.

Cross-Cutting Aspect: Not Present Performance. No cross-cutting aspect was assigned to this finding because the inspectors determined the finding did not reflect present licensee performance. The failure to correctly translate design inputs occurred in 2014.

Enforcement:

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

Enforcement Discretion	Enforcement Action EA-21-142: Failure to Comply with 10 CFR Part 37	71124.08
<p><u>Description:</u></p> <p>On November 15, 2016, the licensee was issued NRC Inspection Report Nos. 05000315/2016404 and 05000316/2016404, which documented a licensee-identified violation of 10 CFR Part 37, Physical Protection of Category 1 and Category 2, Quantities of</p>		

Radioactive Material at Facilities with a 10 CFR Part 73, Physical Protection Program. The violation met the criteria for Enforcement Discretion as described in Enforcement Guidance Memorandum (EGM) 14-001, "Interim Guidance for Dispositioning 10 CFR Part 37 Violations with Respect to Large Components or Robust Structures Containing Category 1 or Category 2 Quantities of Material at Power Reactor Facilities Licensed Under 10 CFR Parts 50 and 52."

Subsequently, the inspectors reevaluated this activity and found that while a violation of regulatory requirements continues to exist, the conditions remain within the criteria for enforcement discretion established within EGM 14-001.

Corrective Actions: As specified in EGM 14-001, the application of discretion is authorized until the underlying technical issue is dispositioned through rulemaking or other regulatory action. Additional corrective actions are not required.

Corrective Action References: Not Applicable.

Enforcement:

Violation: On November 15, 2016 a violation of 10 CFR Part 37 was documented in DC Cook Inspection Report Nos. 05000315/2016404 and 05000316/2016404. The inspectors determined that the previously identified violation remains.

Basis for Discretion: This violation met the criteria for Enforcement Discretion as described in Enforcement Guidance Memorandum (EGM) 14-001, "Interim Guidance for Dispositioning 10 CFR Part 37 Violations with Respect to Large Components or Robust Structures Containing Category 1 or Category 2 Quantities of Material at Power Reactor Facilities Licensed Under 10 CFR Parts 50 and 52."

Failure to Follow Corrective Action Procedure

Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Initiating Events	Green FIN 05000316/2021004-02 Open/Closed	None (NPP)	71152

A Green finding was self-revealed when the licensee failed to follow procedure PMP-7030-CAP-002, "Condition Action and Closure," Revision 33. Specifically, the licensee failed to obtain Corrective Action Review Board (CARB) concurrence for closing a corrective action assignment to actions other than originally prescribed.

Description:

On June 6, 2021, the licensee discovered a small electrohydraulic (EHC) oil leak on the Unit 2 low pressure turbine (LPT) 'B' left reheat steam intercept valve. On June 22, 2021, the licensee closed the 'B' left reheat steam intercept valve because the oil leak worsened. The licensee intended to protect the EHC system from reaching a low-pressure alarm, which would have resulted in an automatic reactor trip. That same day, while seeking vendor guidance on how long the plant could remain in this configuration, operators manually tripped the Unit 2 reactor from 100 percent power due to an un-isolatable steam leak. The steam leak originated at ruptured bellow 2-XJ-113-5. This non-safety related bellow was associated with the right moisture separator reheater (MSR) reheat steam to LPT 'B' crossover line. The licensee documented this event in their Corrective Action Program as AR 2021-5596. The licensee root cause evaluation (RCE) determined the direct cause of the 2-XJ-113-5

bellow failure was separation of the internal liner from the bellow, which allowed steam flow to come into direct contact with the bellow convolutions causing a rupture. In addition, a vendor analysis showed that the 2-XJ-113-5 bellow experienced 200 percent normal mass flow rate due to the closure of the LPT 'B' left reheat steam intercept valve. Flow induced vibration was attributed to the liner separation and subsequent bellow failure.

The 2021 Root Cause Evaluation (RCE) operating experience review documented previous bellow failures involving flow induced vibration. For example, in 2016, the Unit 2 'B' crossover line experienced failure of tie-rods and bellows resulting in a large steam leak. The 2016 event RCE established contributing cause corrective action assignment AR 2016-17865-22 to complete a vibration analysis to fully understand the system vibration and reactions, and to provide input to support bellow redesign. The CARB reviewed the cause evaluation corrective actions. Assignment AR 2016-17865-22 was closed based on partial corrective action with reference to assignment AR 2016-17865-37. Assignment AR 2016-17865-37 was closed on May 31, 2017, after completing a vibration analysis for tie rod configuration before/after a tie rod modification. The scope of assignment AR 2016-17865-37 was narrower than the scope of assignment AR 2016-17865-22. The licensee's 2021 RCE identified a failure to obtain CARB concurrence for revision of the corrective actions. Step 5.1 of procedure PMP-7030-002, "Condition Action and Closure," Revision 33 specifies, in part, when corrective actions taken from a CARB reviewed cause evaluation are different than those prescribed, then the assignment must be taken back to CARB for review and concurrence.

Overall, the licensee's RCE concluded the root cause for the June 22, 2021, bellow failure was the organization's ineffective use of the Corrective Action Program to understand and design for all causes of a known vibration issue which resulted in repeat fatigue-related failures of components within the MSR crossover piping.

Corrective Actions: An RCE was completed identifying the direct, root, and contributing causes. In part, immediate corrective actions included replacement of six bellows and enhancement of bellow liner design; future replacement of six remaining bellows; revision of corrective action procedures to enhance CARB approval, Effectiveness Review actions, and Direct Cause identification; revision of engineering procedures requiring a risk screening for Engineering Changes; and development of guidance for unit operations with one MSR crossover isolated.

Corrective Action References: AR 2021-5596; AR 2016-17865

Performance Assessment:

Performance Deficiency: The licensee failure to obtain CARB concurrence for closing an assignment to perform a detailed vibration analysis of the MSR crossover line and expansion joints without completing it was contrary to Revision 33 of procedure PWP-7030-CAP-002 and was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Human Performance attribute of the Initiating Events cornerstone and adversely affected 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, the failure to obtain CARB concurrence for closing AR 2016-17865-22 without performing a detailed vibration analysis of the MSR crossover line and expansion joints resulted in an un-isolatable steam leak that led to a reactor trip.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The inspectors determined that the finding had very low safety significance (Green) because it did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition (Exhibit 1, Section B).

Cross-Cutting Aspect: Not Present Performance. No cross-cutting aspect was assigned to this finding because the inspectors determined the finding did not reflect present licensee performance. The failure to adhere to documented procedures occurred on May 31, 2017.

Enforcement:

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

Licensee-Identified Non-Cited Violation	71152
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.	
Violation: Technical Specification (TS) 5.4.1.a, "Procedures" requires, in part, that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Regulatory Guide 1.33, Appendix A, February 1978. Regulatory Guide 1.33, Appendix A, Section 2.k recommended "Preparation for Refueling and Refueling Equipment Operation" as a general plant operating procedure.	
Contrary to the above, on August 19, 2020, the licensee failed to implement a written procedure covering a procedure recommended in Regulatory Guide 1.33, Appendix A, February 1978. Specifically, the licensee established procedure 12-MHP-4050-FHP-006, "Control of Loads Over the Spent Fuel Pool and Fuel/Insert Handling in the Spent Fuel Pool," Revision 010, to cover the procedure recommended by Section 2.k of Regulatory Guide 1.33, Appendix A. Step 3.1.9 of this procedure required that fuel assemblies be placed in spent fuel pool (SFP) cells determined appropriate by Reactor Engineering. However, the licensee placed fuel assembly AK44 in a SFP cell that had not been determined appropriate by Reactor Engineering. The licensee apparent cause was the SFP area supervisor incorrectly transposed SFP location information from the approved fuel-move sheets to a white board, which was used to direct the crane operator and crew to the next SFP location.	
Significance/Severity: Green. The inspectors evaluated the significance of this issue using Inspection Manual Chapter 0609, Appendix A, Exhibit 3, "Barrier Integrity Screening Questions" and answered "No" to all the questions of Section E, "Spent Fuel Pool."	
Corrective Action References: AR 2021-8808	

Observation: Unit 2 Steam Leak on Right Moisture Separator Reheater Crossover Line	71152
The inspectors assessed the licensee's corrective actions taken prior to restart to address the steam leak identified on the Unit 2 right moisture separator reheater crossover line captured in AR 2021-5596, "Unit 2 Manual Reactor Trip Due to Steam Leak on Right Moisture Separator Reheater." This AR documented the discovery of a through wall leak at crossover line BR expansion bellows 2-XJ-113-5 and the displacement of the bellows inner liner 6 to 8 inches down the piping. The extent of condition examination of the 2-XJ-113-4	

bellows identified circumferential cracking at the inner liner attachment weld.

The licensee performed Engineering Change EC-58171, "2-XJ113-4 and 2-XJ-113-5 – Change Inner Liner Thickness from 1/8 Inch to 1/4 Inch." This EC stated that the flow velocity in lines BR, AC, and AL increased when the licensee closed valve 2-BL-IV-2 at 100 percent power. The licensee postulated the likely cause of the bellows failure was liner weld failure as a result of increased flow velocity and exposure of the convoluted pressure boundary to flow conditions, increased local turbulence, and vibration of the pressure boundary, potentially resulting in failure by fatigue. Further analysis determined that the existing 0.12" bellows liner thickness did not meet minimum required thickness at the increased flow velocity. The licensee captured this concern in AR 2021-5769, "Expansion Bellows Liner Design Capacity Exceeded." As a result, the expansion joint vendor recommended a bellows liner thickness increase and a liner full penetration attachment weld. In addition to the expansion bellows in crossover line BR, the licensee conservatively replaced expansion bellows in crossover lines AL and CL due to the potential for liner weld cracking resulting from the increased flow velocity. The bellows in crossover lines where flow velocity did not increase (i.e., lines BL, AR, and CR) were not replaced.

The inspectors reviewed EC-58171, AR 2021-5769, and AR 2021-5596. The inspectors did not identify any concerns regarding the corrective actions taken prior to restart. For the event, the licensee submitted LER 316/2021-002-00, "Manual Reactor Trip due to an Unisolable Steam Leak." Inspectors reviewed causal documentation and documented a green finding in Section 71152 of this report.

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.

Violation: Donald C. Cook Nuclear Power Plant Unit 2 TS Limiting Condition for Operation (LCO) 3.7.1, "Main Steam Safety Valves (MSSVs)," required five MSSVs per steam generator to be operable in Modes 1, 2, and 3. When one or more steam generators have one or more MSSVs inoperable, Condition A requires, in part, that thermal power must be reduced to less than or equal to the maximum allowable percentage of Reactor Thermal Power (RTP) listed in Table 3.7.1-1 for the number of operable MSSVs within 4 hours. When the required action and associated completion times of Condition A are not met, Condition B required the unit to be in Mode 3 within 6 hours and Mode 4 within 12 hours.

Contrary to the above, during the operating period of March 1, 2018 to April 15, 2021, the licensee failed to have all MSSVs operable while in Modes 1, 2, and 3. Specifically, on April 15, 2021, the licensee completed a surveillance test that found two MSSVs on one steam generator and an additional MSSV on a second steam generator with lift set points outside of the TS allowable limits while the reactors were in Mode 1. This surveillance test was previously completed satisfactorily on March 1, 2018. Because the condition was unknown until April 15, 2021, the licensee did not reduce to the maximum allowable percentage of RTP or place Unit 2 in Mode 4 within 12 hours. The licensee adjusted the MSSV setpoints to within the allowable TS limits on April 17, 2021. No additional actions were required as Unit 2 was already below the maximum allowed percentage of RTP at the time. This issue is associated with LER 05000316/2021-001-00, Main Steam Safety Valve Setpoints Found Outside Technical Specifications Limits.

Significance/Severity: No Performance Deficiency. Severity Level IV. The inspectors concluded this violation was not associated with an ROP performance deficiency because it was not within the licensee's ability to foresee and correct. Specifically, the MSSVs had passed previous testing and no work had been performed nor issues identified in the intervening time. Thus, there was no reasonable way for the licensee to foresee the excessive drift observed during the operating cycle. Traditional Enforcement is being used to disposition this violation with no associated Reactor Oversight Process (ROP) performance deficiency, per NRC Enforcement Policy Sections 2.2.4.d and 3.10.

Corrective Action References: AR 2021-3113

EXIT MEETINGS AND DEBRIEFS

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

- On January 12, 2022, the inspectors presented the integrated inspection results to Mr. J. Gebbie, Senior Vice President, and other members of the licensee staff.
- On December 6, 2021, the inspectors presented the radiation protection baseline inspection results to Mr. M. Scarpello, Licensing Director, and other members of the licensee staff.
- On December 9, 2021, the inspectors presented the emergency planning inspection results to Ms. K. Ferneau, Plant Manager, and other members of the licensee staff.

THIRD PARTY REVIEWS

Inspectors reviewed the Institute on Nuclear Power Operations (INPO) report for the assessment conducted in late 2021. The inspectors evaluated this report to ensure that NRC perspectives of licensee performance were consistent with any issues identified during the assessment. The inspectors also reviewed this report to determine whether INPO identified any significant safety issues that required further NRC follow-up.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.04	Drawings	OP-1-5114C	Flow Diagram Non-Essential Service Water and Chilled Water	7
71111.04	Drawings	OP-1-5114D	Flow Diagram Non-Essential Service Water and Chilled Water	5
71111.04	Procedures	1-OHP-4021-032-001AB; DG1AB Operation	DG1AB Operation	51
71111.04	Procedures	1-OHP-4021-032-001CD	DG1CD Operation	50
71111.04	Procedures	1-OHP-4021-032-008AB	Operating DG1AB Subsystems	35
71111.04	Procedures	1-OHP-4021-032-008CD	Operating DG Subsystems	42
71111.04	Procedures	2-OHP-4021-032-001AB	DG2AB Operation	60
71111.04	Procedures	2-OHP-4021-032-001CD	DG2CD Operation	57
71111.04	Procedures	2-OHP-4021-032-008AB	Operating DG2AB Subsystems	39
71111.04	Procedures	2-OHP-4021-032-008CD	Operating DG2CD Subsystems	036
71111.05	Fire Plans	Fire Zone 144	Hot Shut Down Panel Enclosure for Unit 1 (Located in Unit 2 Control Room), Elevation 633'	38
71111.05	Fire Plans	Fire Zone 145	Hot Shut Down Panel Enclosure for Unit 2 (Located in Unit 1 Control Room), Elevation 633'	38
71111.05	Fire Plans	Fire Zone 34B	Non-Essential Service Water Valve Area Unit 1, Elevation 612'-0"	38
71111.05	Fire Plans	Fire Zone 44S	Auxiliary Building South, Elevation 609'-0"	38
71111.05	Fire Plans	Fire Zone 54	U2 Control Room, Elevation 633'-0"	38
71111.06	Calculations	PRA-FLOOD-004	Internal Flooding - Qualitative Screening Analysis	2
71111.06	Calculations	PRA-FLOOD-009	Flood Area Volume and Area Estimates	0
71111.06	Calculations	PRA-FLOOD-011	PRA Internal Flooding Update Scenario Development	2

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.06	Calculations	PRA-FLOOD-014	Internal Flood Detailed Analysis	0
71111.06	Calibration Records	AR 2021-10251	Scotchbrite Pad Found in 1-AB-C1 MCC Cable Pit	12/16/2021
71111.06	Work Orders	55554794-01	MTE, Unit 1 Wet Cable Aux Building Inspections	12/16/2021
71111.07A	Corrective Action Documents	AR 2021-7713	Unit 2 CCW Surge Tank Lowering	0
71111.07A	Corrective Action Documents	AR-2020-10495	Unit 1 West CCW Heat Exchanger Tube Leakage	0
71111.07A	Engineering Changes	EC 55754	Unit 1 ESW to CCW Mechanical Jumper Installation	1
71111.07A	Operability Evaluations	ODMI 1-20-006	Operational Decision-Making Issue - CCW to ESW Tube Leak	0
71111.07A	Operability Evaluations	ODMI 2-21-004	Unit 2 CCW System Out Leakage	0
71111.12	Corrective Action Documents	AR 2021-6321	Loud Bang and One Inch Loss of Vacuum in U1 Main Condenser	0
71111.12	Engineering Changes	DIT -S-00978-05	Henry Pratt Drawings 900100133 Torque Tube Weldment and 900100110 Extension Body Assembly	09/06/2001
71111.12	Engineering Evaluations	EE 2001-0270	Torque Tubes for the Unit 1 and Unit 2 Circulating Water Pump Discharge Valves	09/06/2001
71111.12	Miscellaneous		Notification of Audit Closure NOS-21-04, Material Control, and Measuring Test Equipment (MT&E)	11/04/2021
71111.12	Miscellaneous		NOS-21-06-01, Receipt Inspectors	06/30/2021
71111.12	Miscellaneous	14606200	Issue Ticket; WO 55543325	07/26/2021
71111.12	Miscellaneous	3725	Usage Ticket; WO 5554985601; Cat Id 044304870004, 044225865104, & 044225865204	09/27/2021
71111.12	Miscellaneous	3728	Usage Ticket; WO 5554985602 (Various Cat IDs)	09/30/2021
71111.12	Miscellaneous	3731	Usage Ticket; WO 5554985602 (Various Cat IDs)	09/30/2021
71111.12	Miscellaneous	3732	Usage Ticket; WO 5554985602 (Various Cat IDs)	09/30/2021
71111.12	Miscellaneous	3831	Usage Ticket; WO 5554985602 (Various Cat IDs)	09/30/2021
71111.12	Miscellaneous	3909	Usage Ticket; WO 5554985602 (Various Cat IDs)	09/30/2021
71111.12	Miscellaneous	3913	Usage Ticket; WO 5554985602 (Cat ID 2350035104)	09/30/2021
71111.12	Miscellaneous	4081	Usage Ticket; WO 5554985602 (Various Cat IDs)	09/30/2021
71111.12	Miscellaneous	FO-21-J-043	Closure Review for Finding NOS-21-06-01	10/27/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.12	Work Orders	55543325-01	12-EDFP-BATT-2, East Diesel Driven Fire Pump PP-15-145E Diesel OME-215E Battery #2	39
71111.12	Work Orders	55549856-01	Engine Driven Fire Pump Diesel Inspection	09/27/2021
71111.12	Work Orders	55549856-02	Engine Driven Fire Pump Diesel Inspection	09/27/2021
71111.12	Work Orders	55564155	Loud Bang and Sudden Loss of Vacuum in U1 Main Condenser 1-WMO-13	07/21/2021
71111.12	Work Orders	C100002037001	2-DR-AUX320, Degraded Door Structure and Skin Separation	10/20/2021
71111.12	Work Orders	C100002037004	Work Management Process Flowchart	61
71111.13	Corrective Action Documents	AR 2021-8739	Unit 1 1-NLI-321 Lower Containment Train 'A' Water Level Indicator Transmitter Failure High	0
71111.13	Corrective Action Documents	AR 2021-8801	Unit 2 Train A Distributed Ignition System Ignitor Failure	0
71111.13	Procedures	2_OHP-4021-082-001	4KV Buses Power Source Transfer and De-Energizing and Reenergizing A Safeguard Bus	057
71111.13	Work Orders	55561643-01	Unit 2 Distributed Ignition System	10/26/2021
71111.13	Work Orders	C10003748001	1-NLI-321-SPG; Replace Output Card	10/26/2021
71111.13	Work Orders	WO 55542250-01	MTI Calibrate Protective Relays for XFMR 2-TR21 CMC and Breaker TR-21	010/06/2021
71111.15	Calculations	MD-12-ESW-112-N	Impact of ESW Supply Header Crosstie Shutoff Valve Leakage on the ESW System	000
71111.15	Corrective Action Documents	AR 2021-8243	Packing leak on 2-ICM-265	0
71111.15	Corrective Action Documents	AR 2021-8280	Slow Rising Trend on Unit 1 Boron Injection Tank Discharge Pressure	0
71111.15	Corrective Action Documents	AR 2021-8634	SML-18 Drop 15 (C-9 Status Light not Lit, CRID-IV Circuit 10 fuse blown)	0
71111.15	Corrective Action Documents	AR 2021-9104	1-HV-ACR-2 U1 South Control Room AC Chiller Keeps Tripping	0
71111.15	Corrective Action Documents	AR 2021-9202	2-HV-AFP-T1AC TDAFP Room Cooler ESW Leak	0
71111.15	Drawings	OP-1-98272-18	Chemical & Volume Control System Reactor Make Up Sheet No 2 Elementary Diagram	18
71111.15	Drawings	OP-1-98509-17	Steam Dump Control & Turbine Trips Logic Diagram	17

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.15	Drawings	OP-1-98537-10	Steam Dump Control Elementary Diagram	10
71111.15	Drawings	PS-1-92090-21	Control Rm East Rear Rack AC & DC Distr. CCV-AB SH No. 2 Wiring Diagram	21
71111.15	Drawings	PS-1-92090B-0	Control Room East Rear Rack 1-CRID-4-Fuses	0
71111.15	Drawings	PS-1-92478-6	Aux Relay Cab ARB-1 Wiring Diagram	6
71111.15	Drawings	PS-1-92479-6	Aux Relay Cab. ARB-2 Wiring Diagram	6
71111.15	Engineering Evaluations	AR 2021-8280	Slow Rising Trend on Unit 1 BIT Discharge Pressure	0
71111.15	Operability Evaluations	AR 2021-8243	2-PP-26S Discharge Header Containment Isolation Valve	0
71111.15	Operability Evaluations	AR 2021-9292	2-HV-AFP-TDAFP Room Cooler ESW Leak	0
71111.15	Operability Evaluations	OHI-4032	Leak Monitoring Program	21
71111.15	Operability Evaluations	PODE AR 2021-9202	2-HV-AFP-T1AC TDAFP Room Cooler ESW Leak	11/16/2021
71111.18	Calculations	MD-12-AFW-001-4	Auxiliary Feedwater System Design Basis Analysis	004
71111.18	Corrective Action Documents	AR 2021-8026	Station Lost Train B Reserve Feed for Both Units	0
71111.18	Corrective Action Documents	AR 2021-8131	Loop Feed Enclosure	0
71111.18	Engineering Changes	EC-0000058237	1-FW-124 East Motor Driven Auxiliary Feedwater Pump PP-3 East Suction Check Valve Replacement	000
71111.18	Engineering Changes	EC-1000192	34.5 kV Train B Loop Feed Enclosure (LFE) Permanent Heater and Partial Discharge Monitor Installation	0
71111.19	Drawings	DOC00 5605	1-MRA-1701	0
71111.19	Drawings	OP-1-98819-12	Radiation Monitoring System Area Monitors MRA-1600 and MRA-1700 Elementary Diagrams	12
71111.19	Procedures	1-IHP-4030-113-023	Steam Generator Safety Relief/PORV Loops 2 and 3 Radiation Monitor MRA-1700 Channel Operational Test	5
71111.19	Procedures	1-IHP-4030-131-002A	Containment Water Level - Train A Level Indication Channel Calibration	4
71111.19	Procedures	1-OHP-4030-119-	East Essential Service Water System Test	40

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		022E		
71111.19	Procedures	1-OHP-4030-132-027CD	CD Diesel Generator Operability Test (Train A)	70
71111.19	Procedures	12-MHP-4030-066-002	Diesel Fire Pump Engine Surveillance Test	8
71111.19	Procedures	12-OHP-4030-018-130N	North Spent Fuel Pit Pump Surveillance Test	
71111.19	Procedures	2-IHP-4030-234-001	Unit 2 DIS Surveillance Testing	41
71111.19	Procedures	2-IHP-4030-266-012	Unit 2 Engineered Safety Switchgear (East 600V Switchgear Room Mezzanine Area) CO2 Fire Suppression Test)	4
71111.19	Procedures	C10001204004	Perform Leak Inspection/PMT on 2-HV-CCWC-A Containment Cooling Chilled Water Chiller A	10/04/2021
71111.19	Procedures	PMP-4043-EQC-001	Equipment Control - Cook Configuration Control Card (1-MRA-1701)	11/11/2021
71111.19	Shipping Records	55550217-01	Perform Surveillance Procedure 2-IHP-4030-266-012 (Unit 2 Engineered Safety Switchgear East 600V Switchgear Room and Mezzanine Area CO2 Fire Suppression Test)	10/27/2021
71111.19	Work Orders	55561643-01	Perform Post-Maintenance Testing; 2-IHP-4030-234-001	10/25/2021
71111.19	Work Orders	C10003748001	1-NLI-321; Replace Output Card	10/26/2021
71111.19	Work Orders	C10003748002	1-NLI-321; 1-OHP-131-002A Post-Maintenance Test	10/27/2021
71111.19	Work Orders	C10004590001	1-MRA-1701	11/10/2021
71111.19	Work Orders	C10004590012	1-MRA-1701 1-IHP-4030-113-023 COT-PMT	11/16/2021
71111.22	Procedures	1-OHP-132-027AB	1-DG-1030A DG 1AB Starting Air Compressor 1-QT-142-AB1 Outlet Check Valve Test	68
71111.22	Procedures	12-IHP-4030-046-002	Unit 1 and 2 Personnel Airlock Door Seal Leak Rate Surveillance	3
71111.22	Procedures	12-MHP-4030-001-001	IST Safety Valve Bench Test (1-SV-324, Containment Spray 85 PSI Control Air Ring Header #1 Safety Valve)	22
71111.22	Procedures	2-OHP-4030-251-018	Steam Generator Stop Valve Dump Valve Surveillance Test	12
71111.22	Work Orders	55497002	1-SV-324 IST Safety Valve Bench Testing Group 1	11/17/2021
71111.22	Work Orders	55557796-01	OPFP, Functional Test and Inspection, Large Flex Diesel Generators	08/10/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.22	Work Orders	C10003164001	12-IHP-4030-046-002; Unit 1 and 2 Personnel Airlock Door Seal Leak Rate Surveillance	10/19/2021
71114.04	Miscellaneous	Change Evaluation #20-26	10 CFR 50.54(q) Effectiveness Evaluation Form	10/06/2020
71114.04	Miscellaneous	Change Evaluation #21-01	10 CFR 50.54(q) Effectiveness Evaluation Form	04/29/2021
71114.04	Miscellaneous	Change Evaluation #21-13	10 CFR 50.54(q) Effectiveness Evaluation Form	05/12/2021
71114.04	Miscellaneous	Change Evaluation #21-13	EAL Change Evaluation Form	05/12/2021
71114.04	Miscellaneous	Screening #20-26	10 CFR 50.54(q) Screening Form	01/27/2021
71114.04	Miscellaneous	Screening #20-56	10 CFR 50.54(q) Screening Form	04/28/2021
71114.04	Miscellaneous	Screening #21-01	10 CFR 50.54(q) Screening Form	04/28/2021
71114.04	Miscellaneous	Screening #21-02	10 CFR 50.54(q) Screening Form	01/21/2021
71114.04	Miscellaneous	Screening #21-13	10 CFR 50.54(q) Screening Form	04/15/2021
71114.04	Miscellaneous	Screening #21-18	10 CFR 50.54(q) Screening Form	05/06/2021
71124.08	Corrective Action Documents	2021-9047	10 CFR 37 Reviews	11/04/2021
71124.08	Miscellaneous		Part 37 Security Plan for Protection of Category 1 and Category 2 Quantities of Radioactive Material	1
71124.08	Procedures	SPP-2060-SFI-217	Protection of Category 1 and Category 2 Radioactive Material	7
71151	Miscellaneous		MSPI Derivation Reports - Emergency AC Power Systems (10/01/2020 through 9/30/2021) - Unit 1	0
71151	Miscellaneous		MSPI Derivation Reports - Emergency AC Power Systems (10/01/2020 through 9/30/2021) - Unit 2	0
71151	Miscellaneous		Operational Narrative Logs (10/01/202 through 09/30/2021)	0
71151	Miscellaneous		Reactor Coolant System Leakage Performance Indicator Data (10/01/2020 through 9/30/2021) - Unit 1	0
71151	Miscellaneous		Reactor Coolant System Leakage Performance Indicator Data (10/01/2020 through 9/30/2021) - Unit 2	0
71151	Procedures	PMP-7110-001	Reactor Oversight Program Performance Indicators and Monthly Operating Report Data	21
71152	Corrective Action	ACE 2021-8808	Spent Fuel Pool Mislocation	12/09/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Documents			
71152	Corrective Action Documents	AR 2021-5596	Root Cause Evaluation - Unit 2 Manual Reactor Trip due to Steam Leak	11/04/2021
71152	Corrective Action Documents	AR 2021-5596	Unit 2 Manual Reactor Trip	0
71152	Corrective Action Documents	AR 2021-5596	Unit 2 Manual Reactor Trip Due to Leak on Right Moisture Separator Reheater	06/22/2021
71152	Corrective Action Documents	AR 2021-8808	Discrepancy Identified in SFP Inventory	10/26/2021
71152	Corrective Action Documents	AR-2021-5769	Expansion Bellows Line Design Capacity Exceeded	06/28/2021
71152	Engineering Changes	EC-58171	2-XJ-113-4 and 2-XJ-113-5 - Change Liner Thickness from 1/8" to 1/4"	06/27/2021
71152	Engineering Evaluations	TR-21-08-02	Cook Unit #2 Expansion Joint Failure Analysis	08/27/2021
71152	Miscellaneous		Operational Narrative Logs	06/2021 – 11/2021
71152	Miscellaneous		Corrective Action Records	06/2021 – 11/2021
71152	Procedures	12-MHP-4050-FHP-006	Control of Loads Over the Spent Fuel Pool and Fuel/Insert Handling in the Spent Fuel Pool	010
71152	Work Orders	55563182-07	Replace BR Primary Bellows 2-XJ-113-4 and 2-XJ-113-5	06/27/2021
71152	Work Orders	55563331-06	Replace AL Primary Bellows 2-XJ-113-13 and 2-XJ-113-14	07/01/2021
71152	Work Orders	55563352-06	Replace CL Primary Bellows 2-XJ-113-17 and 2-XJ-113-18	07/01/2021
71153	Corrective Action Documents	AR 2016-17865	U2 B Right MSR Expansion Joint Failure	0
71153	Corrective Action Documents	AR 2021-5596	Unit 2 Manual Reactor Trip	0
71153	Corrective Action Documents	RCE AE 2021-5596	Unit 2 Manual Reactor Trip	09/01/2021