



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
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LISLE, ILLINOIS 60532-4352

February 14, 2023

Peter Dietrich
Senior VP and Chief Nuclear Officer
DTE Electric Company
Fermi 2 – 260 TAC
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: FERMPOWER PLANT, UNIT 2–INTEGRATED INSPECTION REPORT
05000341/2022004

Dear Peter Dietrich:

On December 31, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Fermi Power Plant, Unit 2. On January 25, 2023, 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.

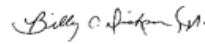
Five findings of very low safety significance (Green) are documented in this report. Three of these findings involved violations of NRC requirements. We are treating these violations as non-cited violations (NCVs) consistent with section 2.3.2 of the Enforcement Policy.

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 Fermi Power Plant, Unit 2.

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 Fermi Power Plant, Unit 2.

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 Dickson, Billy
on 02/14/23

Billy C. Dickson, Jr., Chief
Reactor Projects Branch 2
Division of Operating Reactor Safety

Docket No. 05000341
License No. NPF-43

Enclosure:
As stated

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Letter to Peter Dietrich from Billy Dickson dated February 14, 2023.

SUBJECT: FERMI POWER PLANT, UNIT 2-INTEGRATED INSPECTION REPORT
05000341/2022004

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

Docket Number: 05000341

License Number: NPF-43

Report Number: 05000341/2022004

Enterprise Identifier: I-2022-004-0042

Licensee: DTE Electric Company

Facility: Fermi Power Plant, Unit 2

Location: Newport, MI

Inspection Dates: October 01, 2022 to December 31, 2022

Inspectors: T. Briley, Senior Project Engineer
R. Edwards, Branch Chief
J. Gewargis, Resident Inspector
G. Hansen, Senior Emergency Preparedness Inspector
T. Iskierka-Boggs, Senior Operations Engineer
M. Jones, Emergency Response Coordinator
J. Kutlesa, Emergency Preparedness Inspector
R. Ng, Senior Project Engineer
T. Taylor, Senior Resident Inspector

Approved By: Billy C. Dickson, Jr., Chief
Reactor Projects Branch 2
Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Fermi Power Plant, Unit 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.

List of Findings and Violations

Failure to Monitor Moderate Energy Line Break Flood Barriers			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000341/2022004-01 Open/Closed	[P.2] - Evaluation	71111.06
The inspectors identified a Green finding and associated Non-cited violation (NCV) of 10 CFR 50, appendix B, criterion III, Design Control, when the licensee failed to validate the design of certain internal flood barriers protecting safety-related equipment. Specifically, the inspectors identified degraded and missing spray shields designed to protect safety-related equipment from the effects of moderate energy line breaks (MELBs).			
Failure to Follow Housekeeping Procedure on Residual Heat Removal Complex (Ultimate Heat Sink) Roof			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green FIN 05000341/2022004-02 Open/Closed	[H.12] - Avoid Complacency	71111.07T
The inspectors identified a finding of very low safety significance for the licensee's failure to document housekeeping findings and initiate a condition assessment resolution document (CARD) for discrepancies on the residual heat removal (RHR) complex roof in accordance with licensee procedure MOP 21, "Housekeeping." Specifically, the inspectors identified miscellaneous debris (such as food wrappers, ear plugs, security drill rounds, plastic bags, moss clumps, tie wraps, small plastic pieces, and paint chips) that had not been documented by the licensee despite multiple individuals touring the area.			
Vendor Oversight Issues During RF20 Torus Recoat Project			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green FIN 05000341/2022004-03 Open/Closed	[H.5] - Work Management	71152A
The NRC identified a Green finding associated with vendor oversight of the 2020 torus recoat project when unexpected degradation of the coating prompted a review that determined control of supplemental personnel during the 2020 outage was inadequate.			

Some Industry Standards Not Incorporated into Torus Recoat Procedures			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000341/2022004-04 Open/Closed	[H.11] - Challenge the Unknown	71152A
A Green finding with an associated Non-cited violation (NCV) of 10 CFR 50 appendix B, criterion V, "Instructions, Procedures, and Drawings," was self-revealed while inspecting the torus during the RF21 refueling outage (spring 2022). Some areas of degradation were observed that were unexpected given the torus had been recoated during the previous refueling outage. Upon further review, the licensee identifies that some applicable industry standards had been omitted from the torus recoat procedures, and certain portions of the work instructions were not followed.			

Failure to Perform a Required Code Evaluations for Standby Liquid Control System Leakage			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000341/2022004-05 Open/Closed	[H.12] - Avoid Complacency	71152A
The inspectors identified a Green finding with an associated Non-cited violation (NCV) of 10 CFR 50.55a, "Codes and Standards," for the licensee's failure to follow the ASME Code after discovering boric acid leakage in the standby liquid control system (SLC). Specifically, a code required evaluation was not performed as an alternative to corrective actions.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
URI	05000341/2022003-03	Seismic Displacement for Safety-Related Piping Not Verified	71111.18	Closed
LER	05000341/2021-002-00	LER 2021-002-00 for Fermi 2 Power Plant, Unplanned Inoperability of High Pressure Coolant Injection System Due to an Inverter Circuit Failure	71153	Closed
LER	05000341/2021-002-01	LER 2021-002-01 for Fermi Power Plant, Unit 2, Unplanned Inoperability of High Pressure Coolant Injection System Due to an Inverter Circuit Failure	71153	Closed
LER	05000341/2021-001-00	LER 2021-001-00 for Fermi, Unit 2, Unrecognized Impact of Opening of Barrier Doors on High Energy Line Break Analysis	71153	Closed
LER	05000341/2022-003-00	LER 2022-003-00 for Fermi 2 Power Plant, Turbine Trip	71153	Closed

		and Subsequent Reactor Trip Due to Mayflies		
LER	05000341/2022-001-00	LER 2022-001-00 for Fermi 2 Power Plant, Reactor Scram on Low Reactor Pressure Vessel Level	71153	Closed

PLANT STATUS

Fermi Unit 2 started the inspection period at or near 100 percent power, and remained there for the quarter.

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," 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

71111.01 - Adverse Weather Protection

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

- (1) The inspectors evaluated readiness for seasonal extreme weather conditions prior to the onset of seasonal cold temperatures for the following systems:

General service water, circulating water, and residual heat removal service water (RHRSW) for the week ending on November 18, 2022

External Flooding Sample (IP Section 03.03) (1 Sample)

- (1) The inspectors evaluated that flood protection barriers, mitigation plans, procedures, and equipment are consistent with the licensee's design requirements and risk analysis assumptions for coping with external flooding for the week ending on November 4, 2022.

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (6 Samples)

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

- (1) Division 1 emergency equipment cooling water (EECW) with division 2 EECW TCV maintenance during the week ending October 21, 2022
- (2) Division 1 non-interruptible air system (NIAS) during division 2 control center heating, ventilation, and air conditioning (CCHVAC) safety system outage during the week ending October 21, 2022

- (3) Division 1 130/260 engineered safety feature direct current (DC) power and battery system during the week ending October 29, 2022
- (4) Electric fire pump while the alternate diesel fire pump was out of service on November 9, 2022
- (5) Division 2 residual heat removal (RHR) drywell spray with work on division 1 during the week ending November 26, 2022
- (6) Division 1 RHRSW with the division 2 RHR pump and valve surveillance during the week ending November 25, 2022

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

- (1) The inspectors evaluated system configurations during a complete walkdown of the division 2 core spray system during the week ending on November 4, 2022.

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) Southwest quadrant of the reactor building basement and sub-basement during the week ending October 21, 2022
- (2) Northwest quadrant of the reactor building basement and sub-basement during the week ending November 18, 2022
- (3) Reactor core isolation cooling quad sprinkler question during the week ending December 10, 2022
- (4) Reactor building 3 and reactor building 4 standby liquid control area during the week ending December 12, 2022

71111.06 - Flood Protection Measures

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

The inspectors evaluated internal flooding mitigation protections in the following:

- (1) Auxiliary building third and fourth levels, completed the week ending December 31, 2022

71111.07T - Heat Exchanger/Sink Performance

Heat Exchanger (Service Water Cooled) (IP Section 03.02) (1 Sample)

The inspectors evaluated heat exchanger performance on the following:

- (1) P4400B001B, EECW division 2 plate and frame heat exchanger

Heat Exchanger (Closed Loop) (IP Section 03.03) (1 Sample)

The inspectors evaluated heat exchanger performance on the following:

- (1) P5002B004, control air compressor (CAC) after cooler – north non-interruptible control air (NIAS)

Ultimate Heat Sink (IP Section 03.04) (1 Sample)

The inspectors evaluated the ultimate heat sink performance on the following:

- (1) The ultimate heat sink, specifically sections 03.04.a and 03.04.e were completed.

71111.11A - Licensed Operator Requalification Program and Licensed Operator Performance

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

- (1) The inspectors reviewed and evaluated the licensed operator examination failure rates for the requalification annual operating tests administered between October 11, 2022 and November 10, 2022.

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (1 Sample)

- (1) The inspectors observed and evaluated licensed operator performance in the control room during a planned high pressure coolant injection system surveillance that resulted in a yellow risk condition, with complications regarding the performance of two valves in the system, on November 15, 2022.

Licensed Operator Requalification Training/Examinations (IP Section 03.02) (2 Samples)

- (1) The inspectors observed and evaluated performance of an annual operating test in the control room simulator on October 26, 2022.
- (2) The inspectors observed and evaluated licensed operator requalification training for technical specifications and emergency action level entry, and simulator exercise scenarios in the main control room simulator during the week ending November 18, 2022.

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) 4160V electrical switchgear
- (2) Power supply inverters for safety-related instrumentation and control loads
- (3) Review of issues associated with the transversing in-core probe system, completed the week ending December 24, 2022

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) Troubleshooting and electric shock associated with the reactor water cleanup system during the week ending November 12, 2022
- (2) Gland seal exhaust motor replacement on November 02, 2022
- (3) Mechanical draft cooling tower fan 'B' maintenance November 28, 2022
- (4) Approach to a leaking sensing line for reactor feed pump suction pressure, completed the week of December 31, 2022

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (2 Samples)

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

- (1) Abnormal noise from the 'B' mechanical draft cooling tower motor during the week ending December 3, 2022
- (2) Recirculation pump seal pressure changes during the week ending December 10, 2022

71111.18 - Plant Modifications

Severe Accident Management Guidelines (SAMG) Update (IP Section 03.03) (1 Sample)

- (1) The inspectors verified the site SAMG were updated in accordance with the BWR generic severe accident technical guidelines and validated in accordance with NEI 14-01, "Emergency Response Procedures and Guidelines for Beyond Design Basis Events and Severe Accidents," Revision 1.

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (3 Samples)

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

- (1) Division 1 CCHVAC outage during the week of October 3, 2022
- (2) Division 1 NIAS during the week ending November 4, 2022
- (3) Diesel fire pump post installation testing, completed during the week ending December 23, 2022

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance testing activities to verify system operability and/or functionality:

Surveillance Tests (other) (IP Section 03.01) (4 Samples)

- (1) Electrical bus 64B undervoltage testing and relay calibrations during the week ending October 8, 2022
- (2) HPCI pump and valve surveillance after pressure control valve repair and outboard main steam isolation valve packing adjustment on December 1, 2022
- (3) EECW pump and valve during the week ending December 14, 2022
- (4) Validation of acceptable level bands for oil and tank levels on select motors and tanks, completed the week ending December 24, 2022

Inservice Testing (IP Section 03.01) (1 Sample)

- (1) EDG 11 SW pump and minimum flow valve testing during the week ending October 21, 2022

RCS Leakage Detection Testing (IP Section 03.01) (1 Sample)

- (1) RCS leakage increasing trend during the week ending October 29, 2022

FLEX Testing (IP Section 03.02) (1 Sample)

- (1) Dominator and Neptune pump run surveillances, completed by the week ending December 31, 2022

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:
 - 2021-08E, Spent fuel pool level updates for RA2.3, RS2.1, and RG2.1, September 21, 2021
 - 2021-35S, Spent fuel pool level updates for RA2.3, RS2.1, and RG2.1, September 21, 2021

This evaluation does not constitute NRC approval.

71114.06 - Drill Evaluation

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

- (1) The inspectors evaluated drill and exercise performance indicator opportunities associated with a licensed-operator requalification activity on October 26, 2022.

OTHER ACTIVITIES—BASELINE

71152A - Annual Follow-up Problem Identification and Resolution

Annual Follow-up of Selected Issues (Section 03.03) (3 Samples)

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

- (1) Ongoing issues with effluent sampling systems and potential impacts to declaring emergency action levels, the week ending December 10, 2022
- (2) Select review of degraded/non-conforming conditions carried by the licensee, completed the week of December 31, 2022
- (3) Review of 2020 torus recoat project following degradation identified in 2022, completed the week of December 31, 2022

71152S - Semiannual Trend Problem Identification and Resolution

Semiannual Trend Review (Section 03.02) (1 Sample)

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

71153 - Follow Up of Events and Notices of Enforcement Discretion

Event Report (IP Section 03.02) (4 Samples)

The inspectors evaluated the following licensee event reports (LERs):

- (1) LER 05000341/2021-001, Unrecognized Impact of Opening of Barrier Doors on High Energy Line Break Analysis (ADAMS Accession No. ML21182A291). The inspection conclusions associated with this LER are documented in Inspection Report 05000341/2021003 under Inspection Results section 71111.15 (ADAMS Accession No. ML21298A200). An analysis to assess the potential impacts on components outside the reactor building steam tunnel (RBST) during a line break in the RBST does not exist. Current analyses assume the door is shut. Subsequent to NRC identification of the issue in 2021, the licensee took steps to conduct an analysis on effects outside the RBST. This effort was not completed. As a result, the inspectors cannot validate the accuracy of several of the 10 CFR 50.73 reporting criteria, such as loss of safety functions and conditions prohibited by technical specifications (TS). While the licensee did report under those criteria (assuming a worst case scenario where all equipment required to respond to a line break in the RBST was inoperable due to the break), without an analysis on the environmental impacts outside the RBST, it is impossible to assess whether or not these criteria were actually met. Despite that, the licensee did report under criteria for an unanalyzed condition and a condition prohibited by TS 3.0.3 specifically. The inspectors determined it was appropriate to report under those criteria given the lack of analysis and multiple types and trains of equipment that may have been impacted to the point where operability was brought into question. The non-cited violation associated with this issue screened as very low safety significance given the small amount of time the door had been open in the past 3 years. The licensee instituted

corrective actions to better recognize and control important doors throughout the plant. No further findings nor violations were identified.

- (2) LER 05000341/2021-002-00 and 05000341/2021-002-01, Unplanned Inoperability of High Pressure Coolant Injection System Due to an Inverter Circuit Failure (ADAMS Accession Nos. ML22075A087). The inspectors determined that it was not reasonable to foresee or correct the cause discussed in the LER therefore no performance deficiency was identified. The inspectors did not identify a violation of NRC requirements. The inspectors reviewed the previous, as well as the updated LER submittal.
- (3) LER 05000341/2022-001, Reactor Scram on Low Reactor Pressure Vessel Level (ADAMS Accession No. ML22094A155). The inspection conclusions associated with this LER are documented in Inspection Report 0500341/2022003 under Inspection Results section 71152A. No further findings or violations were identified.
- (4) LER 05000341/2022-003, Turbine Trip and Subsequent Reactor Trip due to Mayflies (ADAMS Accession No. ML22235A106). The inspection conclusions associated with this LER are documented in Inspection Report 0500341/2022003 (ADAMS Accession No. ML22311A531) under Inspection Results section 71152A. No findings nor violations were identified.

OTHER ACTIVITIES—TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

60855 - Operation of an ISFSI

The inspectors evaluated the licensee’s activities related to the long-term operation and monitoring of its Independent Spent Fuel Storage Installation (ISFSI). The inspectors reviewed relevant documentation remotely during the weeks of October 10 and October 17, 2022, and were onsite on October 19, 2022. During the onsite walkdown, the inspector toured the ISFSI and evaluated the material and radiological conditions of the ISFSI pad and loaded HI-STORM 100 systems. The inspectors verified radiological conditions on the ISFSI pad were as expected during the walkdown. The inspectors interviewed licensee staff regarding periodic surveillances of the loaded HI-STORM casks.

Since the last inspection, the inspectors evaluated corrective action documents and changes performed in accordance with 10 CFR 72.48, "Changes, Tests, and Experiments."

INSPECTION RESULTS

Failure to Monitor Moderate Energy Line Break Flood Barriers			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000341/2022004-01 Open/Closed	[P.2] - Evaluation	71111.06
The inspectors identified a Green finding and associated Non-cited violation (NCV) of 10 CFR 50, appendix B, criterion III, Design Control, when the licensee failed to validate the design of certain internal flood barriers protecting safety-related equipment. Specifically, the			

inspectors identified degraded and missing spray shields designed to protect safety-related equipment from the effects of moderate energy line breaks (MELBs).

Description:

On November 29, 2022, the inspectors performed a walkdown of the third floor and fourth floor of the auxiliary building (AB) as part of an internal flooding inspection sample. During the walkdown, the inspectors discovered that the MELB spray shields in the division 2 switchgear room and AB fourth floor were degraded or missing from sections of emergency equipment cooling water (EECW) piping. The spray shield design consists of a fiberglass-impregnated material that encloses susceptible piping to contain and divert water away from safety-related equipment, namely electrical switchgear. The inspectors questioned the potential effects of the degraded/missing spray shields on nearby equipment. In response, the licensee performed technical evaluations that concluded that safety-related equipment remained operable in the current condition but not in accordance with the design.

A subsequent review by the licensee revealed that a condition assessment resolution document (CARD) had been written in 2020 documenting the degraded spray shields in the division 2 switchgear room, consistent with what was identified on the NRC walkdown almost 3 years later. While the licensee had generated a work order to fix the shields, it was still in a delay status, and no monitoring plan was in place to ensure the barrier could still fulfill its design functions (e.g., following work in the area or periodic checks of the tape holding the barrier in place at some locations). The licensee found no evidence for other piping sections that the missing shields had been identified or documented by the licensee. Through discussion with the inspectors, the licensee determined that the work activity to inspect spray shields throughout the plant had not been performed when last scheduled in July 2019. During the extent of condition walkdowns following NRC's discovery of the issue, further degraded spray shields were identified; however, most were determined not be a part of the internal flooding design basis anymore. The licensee evaluated the others to ensure no impacts to safety-related equipment existed.

Corrective Actions: The licensee completed a technical evaluation to support the operability of the division 2 switchgear and confirmed other areas of missing/degraded spray shields did not constitute a deviation from design nor have adverse impacts on nearby equipment as part of their extent of condition walkdowns. In response to the inspectors' questions, the licensee also started a review to determine if they properly administrated the periodic inspection activity to validate the flood barrier design.

Corrective Action References: CARDS 22-31414, 20-20846, 22-31541, 22-31415, and 22-31571.

Performance Assessment:

Performance Deficiency: The inspectors determined the licensee failed to perform a scheduled verification of flooding barriers. Additionally, deviations from MELB protection features were not controlled due to inspector identification of missing/degraded spray shields on EECW piping that had not been identified by the licensee nor properly monitored.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Design Control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable

consequences. Specifically, degraded MELB barriers had not been identified, monitored, and/or properly assessed that could impact nearby safety-related equipment.
 Significance: The inspectors assessed the significance of the finding using IMC 0609 appendix A, "The Significance Determination Process (SDP) for Findings At-Power."
 Specifically, the finding screened to Green (very low safety significance) because questions 2 through 6 on exhibit 2 of the mitigating systems screening were answered as No.

Cross-Cutting Aspect: P.2 - Evaluation: The organization thoroughly evaluates issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. Specifically, when degraded MELB barriers were identified, the licensee failed to ensure appropriate technical assessments were performed, that effective monitoring was in place, and an extent of condition was performed to identify other issues.

Enforcement:

Violation: 10 CFR 50, appendix B, criterion III, "Design Control," states, in part, that measures established shall include provisions to assure that appropriate quality standards are specified and included in design documents and that deviations from such standards are controlled. Contrary to the above, from January 24, 2020 to January 9, 2023, the licensee failed to assure that deviations from quality standards were controlled. Specifically, the licensee failed to complete a scheduled inspection of flood barriers. Further, the licensee did not perform a technical assessment nor monitoring to support shroud functionality once degradation was identified.

Enforcement Action: This violation is being treated as a NCV, consistent with section 2.3.2 of the Enforcement Policy.

Failure to Follow Housekeeping Procedure on Residual Heat Removal Complex (Ultimate Heat Sink) Roof

Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green FIN 05000341/2022004-02 Open/Closed	[H.12] - Avoid Complacency	71111.07T

The inspectors identified a finding of very low safety significance for the licensee's failure to document housekeeping findings and initiate a condition assessment resolution document (CARD) for discrepancies on the residual heat removal (RHR) complex roof in accordance with licensee procedure MOP 21, "Housekeeping." Specifically, the inspectors identified miscellaneous debris (such as food wrappers, ear plugs, security drill rounds, plastic bags, moss clumps, tie wraps, small plastic pieces, and paint chips) that had not been documented by the licensee despite multiple individuals touring the area.

Description:

On October 18, 2022, the inspectors performed a walkdown of the residual heat removal complex roof. The inspectors noted that the lower roof contained miscellaneous debris in the form of food wrappers, ear plugs, security drill rounds, plastic bags, moss clumps, tie wraps, small plastic pieces, and paint chips. The inspectors also noted that one of the large plastic storage bins containing ice melt material had been lined with a plastic bag and turned into a makeshift trash can. The identified debris was generally in the vicinity of roof drains and/or grating that led to or was directly over the division 1 and division 2 ultimate heat sink water reservoirs used to transfer heat from structures, systems, and components important to

safety. Natural phenomena (such as rainfall or wind gusts) could potentially transport the debris into the reservoirs and potentially challenge pump operation for residual heat removal service water, emergency equipment service water, and/or emergency diesel generator service water. Periodic diving inspection records from 2020 and 2022 also indicated the presence of miscellaneous debris such as plastic signage, moss clumps, and ear plugs located under water in the reservoirs (debris was documented as removed by the divers upon discovery).

The personnel doors used to access the RHR complex roof indicated the area was a "housekeeping category."

Licensee procedure MOP 21, "Housekeeping," Revision 7, contains procedural guidance for ensuring adequate levels of housekeeping to ensure safe plant operation and included all activities related to controlling material in all areas of the facility. The procedure also stated, in part, that individuals are expected to maintain the same level of housekeeping inside and out of the power block. Procedure step 2.3.9 stated, in part, that persons performing a plant tour shall 1) document findings on the housekeeping inspection report form and 2) initiate a condition assessment resolution document (condition report) for discrepancies when required.

The debris identified by the inspectors had not been documented as a housekeeping finding nor entered into the corrective action program via a condition assessment resolution document until brought to the licensee's attention. It is unknown how long the miscellaneous debris was present on the residual heat removal complex roof, however, the inspectors determined that some of the miscellaneous debris had most likely been on the roof for an extended period of time based on environmental degradation.

Corrective Actions: The miscellaneous debris was subsequently removed from the residual heat removal complex roof and a follow-up investigation into the cause(s) was planned.

Corrective Action References: CARD 22-30462

Performance Assessment:

Performance Deficiency: The licensee's failure to document housekeeping findings and initiate a CARD for discrepancies on the RHR complex roof in accordance with licensee procedure MOP 21, "Housekeeping," was a performance deficiency. Specifically, the inspectors identified miscellaneous debris (such as food wrappers, ear plugs, security drill rounds, plastic bags, moss clumps, tie wraps, small plastic pieces, and paint chips) that had not been documented by the licensee despite multiple individuals touring the area.

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, debris on the residual heat removal complex roof can be washed or blown directly into the ultimate heat sink reservoirs and could potentially impact safety-related residual heat removal, emergency equipment, and emergency diesel generator service water systems. The inspectors also noted previous dive inspection records in both 2020 and 2022 of the ultimate heat sink reservoirs housed in the residual heat removal complex contained debris found such as plastic signage and bags, paint chips, and ear plugs to name a few (items were retrieved during periodic diving activities).

Significance: The inspectors assessed the significance of the finding using IMC 0609 appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Specifically, the mitigating systems screening questions for structures, systems, and components and probabilistic risk analysis functionality were all answered no. Therefore, the finding screened as of very low safety significance (Green).

Cross-Cutting Aspect: H.12 - Avoid Complacency: Individuals recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes. Individuals implement appropriate error reduction tools. Specifically, multiple individuals from multiple organizations routinely traversed the RHR complex roof and appeared to not consider the potential undesired consequences of their actions in leaving miscellaneous debris on the roof, verify housekeeping procedure prerequisites despite being prompted by the access door signs stating "housekeeping category," nor performed a thorough review of the area every time work was performed (such as operator rounds) rather than relying on past successes and assumed conditions.

Enforcement:

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

URI	Seismic Displacement for Safety-Related Piping Not Verified URI 05000341/2022003-03	71111.18
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Description:

During the fourth quarter of 2022, the licensee provided additional information from a design basis calculation of record associated with the division 1 residual heat removal service water (RHRSW) supply and return piping inside the reactor building. Calculation No. DC-6953, "Emergency Equipment Cooling Water System Subsystem: EX-15," Revision 0 provides the design basis and licensing basis information associated with the seismic and thermal displacements of the piping and determination of whether the maximum piping displacement impacts any systems, structures, or components (SSCs).

The licensee provided the piping displacement information from Calculation No. DC-6953 to demonstrate that the RHRSW piping will not impact any SSCs. The inspector reviewed this information and concluded this issue is closed. No performance deficiencies or findings were identified.

Corrective Action Reference(s): condition assessment resolution document 22-27033, NRC Identified: Evaluation of Potential Rattle Space Violation, dated 06/10/2022.

Vendor Oversight Issues during RF20 Torus Recoat Project

Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green FIN 05000341/2022004-03 Open/Closed	[H.5] - Work Management	71152A

The NRC identified a Green finding associated with vendor oversight of the 2020 torus recoat project when unexpected degradation of the coating prompted a review that determined control of supplemental personnel during the 2020 outage was inadequate.

Description:

The unexpected torus coating degradation discovered during the 2022 refueling outage prompted an investigation by the licensee into the operability of the torus and the potential causes of the degradation. Non-cited violation (NCV) 05000341/2022004-04, documented in this inspection report, describes the issues with the work instructions associated with the 2020 torus project. Further investigation by the licensee as a result of NRC questions prompted a condition assessment resolution document (CARD) 22-27942 to be written to explore the extent of work control/process gaps that may have existed for the torus project. An organizational effectiveness evaluation determined that supplemental personnel assigned to the torus project failed to follow site processes regarding procedure use and adherence. One of the potential causes for the degradation of the new torus coating was the lack of tarps to protect uncoated areas from the spraying of coating in nearby areas. Despite the work instructions calling for tarps, they were not used. A review of the work instructions later revealed steps were inappropriately marked as complete or not applicable (N/A) inappropriately.

Besides evaluating the extent of the condition of the failure to follow site processes for execution of the torus work instructions, CARD 22-27942 sought to identify the causes of the issues. NRC review of this CARD revealed that the licensee correctly identified several instances of contractors not following site processes. Examples included how to mark steps as complete, how to use a 'N/A,' and when and by whom steps should be marked off. As a result, the inspectors determined supplemental personnel control associated with the torus recoat project was inadequate. CARD 22-27942 identified a potential reason: a new-to-nuclear, non-proficient worker had been selected to ensure steps for the torus project were complete and marked appropriately. While the licensee's CARD stated it was contractor supervision who placed the worker in that position, the inspectors noted site procedure MGA31 had requirements for licensee personnel: such as ensuring contractors had specific training assigned based on needs.

Additionally, the procedure requires updated information to be communicated to the contractors with sufficient time so that they can acquaint workers with the new information (an apparent decision not to use tarps was made but not conveyed to the individual signing for steps in the work instructions). Step 5.4.7 requires observations of work activities to check adherence to station policies and procedures. Step 5.4.1 requires vendor oversight plans to be developed. The licensee's evaluation in CARD 22-27942 did not explore if there were shortfalls with the last two requirements on behalf of licensee personnel. If observations and oversight plans were, in fact, part of the project, they were ineffective at detecting the gaps in contractor performance.

Corrective Actions: The licensee entered the issue into the corrective action program.

Corrective Action References: CARD 22-27942

Performance Assessment:

Performance Deficiency: Contrary to requirements in MGA31, Supplemental Personnel Control Practice, the licensee did not provide adequate oversight of supplemental workers associated with the 2020 torus recoat project.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Human Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, inadequate supplemental worker oversight partly contributed to degraded conditions in the torus. The issue also screened as more than minor under the barrier integrity cornerstone, as the torus forms part of the primary containment barrier.

Significance: The inspectors assessed the significance of the finding using IMC 0609 appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The end result of the performance deficiency was a questioning of the operability of the torus given the degradation that occurred. Under the mitigating systems cornerstone, questions 2-6 in section A of exhibit 2 were answered 'no.' Further, under the barrier integrity cornerstone, questions 1-2 under section C of exhibit 3 were also answered 'no.'

Cross-Cutting Aspect: H.5 - Work Management: The organization implements a process of planning, controlling, and executing work activities such that nuclear safety is the overriding priority. The work process includes the identification and management of risk commensurate to the work and the need for coordination with different groups or job activities. Following the 2020 and 2022 refueling outages, after-action reviews and input from external stakeholders revealed weaknesses in the outage planning and preparation process that drove poor outage performance, to include planning for and managing contract work onsite.

Enforcement:

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

Some Industry Standards Not Incorporated into Torus Recoat Procedures

Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000341/2022004-04 Open/Closed	[H.11] - Challenge the Unknown	71152A

A Green finding with an associated Non-cited violation (NCV) of 10 CFR 50 appendix B, criterion V, "Instructions, Procedures, and Drawings," was self-revealed while inspecting the torus during the RF21 refueling outage (spring 2022). Some areas of degradation were observed that were unexpected given the torus had been recoated during the previous refueling outage. Upon further review, the licensee identified that some applicable industry standards had been omitted from the torus recoat procedures, and certain portions of the work instructions were not followed.

Description:

During the spring 2022 refueling outage, RF21, the inspectors opened an in-depth PI&R sample to review the effectiveness of corrective actions taken during the prior outage (spring 2020) regarding the recoating of the inside of the torus. The inspection sample involved degradation, which developed before 2020, and the licensee's inadequate tracking and assessment of that degradation over time, was the subject of an NRC special inspection in 2019. The results of the special inspection are documented in inspection report 05000341/2019050 (ML20031D253). A confirmatory action letter also resulted from the special inspection, which prompted the entire recoating of the torus in 2020. Following the identification of the degradation, the licensee worked with various vendors and

consultants to assess the impact on the torus's operability and to determine a cause. Degradation ranged from small areas of rust deposits to small bubbles that appeared on the surface. The areas in question were spread throughout the torus in discrete locations. The licensee concluded the total degraded area was far below that which would call into question the operability of the torus. This conclusion was supported by a series of 'pull-tests,' which validated that areas surrounding the pockets of degradation had sound, tightly adhered coating. Inspection by the onsite resident inspectors, region-based inspectors involved with the 2019 special inspection, and experts from NRC headquarters did not find any issues with the licensee's conclusion. The licensee developed several theories on how the degradation originated and documented the conclusions in CARD 22-22967 via an equipment cause evaluation.

Essentially, the licensee concluded several factors likely led to the areas of degradation. Ultimately, the licensee determined inadequate work instructions for the torus recoat project were the cause because several of the contributing factors were not properly accounted for in the work instructions. One example involved time elapsed between 'stripe coating' and application of the main coating (stripe coating being areas 'cut-in' prior to the main spray of coating). The licensee concluded that during the project, between 2.5 and 7.5 hours elapsed between stripe coating and spraying in the various areas. During the licensee's investigation, several industry references discovered pointed to a much shorter time (< 10 minutes) being appropriate to prevent a phenomenon known as 'amine blush' from occurring, which can affect coating adherence. As another example, testing for specific surface contaminants such as chlorides was not directed by the work instructions. While certain industry standards regarding surface preparation were followed, the fact the torus remained 'prepped' for coating for an unexpectedly long period (due to COVID impacts) should have prompted a check for contaminants that may not have otherwise been present had the torus been promptly coated. In addition, the work instructions called for tarps to protect uncoated areas from the 'overspray' of other areas being coated. Steps for installation of the tarps were marked complete; however, a later investigation by the licensee revealed the steps had not been performed. It appears that as the project was progressing, the use of tarps was being debated given a change in coating strategy that had occurred and the speed at which activities were progressing. Per licensee processes, if a decision to not use tarps had been made, the work instructions should have been updated accordingly. Areas not protected from overspray may have led to some of the degradation noted.

Corrective Actions: The licensee performed tests to confirm the coating in general was satisfactorily applied. Select areas were repaired, and evaluations were performed to verify operability of the coating in the as-found and go-forward conditions.

Corrective Action References: CARD 22-22967 documented an equipment cause evaluation and organizational effectiveness cause evaluation.

Performance Assessment:

Performance Deficiency: The implementing work instructions for the torus recoat project were inadequate and certain portions were not followed.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Procedure Quality attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, unexpected degradation was noted on the interior torus coating

after one cycle of operation, calling into question the ability of the coating to remain intact during accident conditions (which can impact the suction of safety related pumps aligned to the torus). The inspectors also determined the issue was more than minor under the barrier integrity cornerstone, as inadequate coating can also impact the primary containment barrier.

Significance: The inspectors assessed the significance of the finding using IMC 0609 appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Specifically, under the mitigating systems cornerstone, questions 2-6 in section A of exhibit 2 were answered 'no.' Further, under the barrier integrity cornerstone, questions 1-2 under section C of exhibit 3 were also answered 'no.'

Cross-Cutting Aspect: H.11 - Challenge the Unknown: Individuals stop when faced with uncertain conditions. Risks are evaluated and managed before proceeding. Specifically, the inspectors utilized the associated common language attribute (QA.2) from NUREG-2165, Safety Culture Common Language, to inform assignment of an appropriate cross-cutting aspect. Applicable tenets of QA.2 include:

- "Leaders reinforce expectations that individuals take time to do the job right the first time, seek guidance when unsure, and stop if unexpected conditions are encountered."
- "Individuals maintain a questioning attitude during pre-job briefs and jobsite reviews to identify and resolve unexpected conditions."
- "Individuals stop work activities when confronted with an unexpected condition, communicate with supervisors, and resolve the condition prior to continuing work..."
- "If a procedure or work document is unclear or cannot be performed as written, individuals stop work until the issue is resolved."

The dynamic nature of the COVID health emergency led to changing conditions (e.g., longer period between surface preparation and coating) that presented opportunities to revalidate appropriate standards and controls in the work instructions that may have prevented the scope of degradation. Further, work was not stopped when the instructions could not be performed as written when it was decided to not use tarps.

Besides the work instructions for the coating, the inspectors also broadened their review to other work activities that were part of the torus project. The attributes of H.11/QA.2 were lacking in several areas throughout the project. A worker was injured when others saw an unsafe platform but did not stop the job before the injury. When workers in the torus questioned the speed at which material was being hoisted out of the torus, workers above told them multiple times that they would not slow down. In approaching the unknowns associated with confined space rescue in a fully drained torus, the necessary practice and coordination for such a complex activity was not provided prior to start of work. This missed opportunity was only realized when the rescue team was called out for an injury after work had started.

Enforcement:

Violation: 10 CFR 50 appendix B, criterion V, Instructions, Procedures, and Drawings, requires, in part, that activities affecting quality shall be prescribed by documented instructions of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions. Contrary to the above, during the spring 2020 refueling

Outage (March 2020–August 2020) and until discovery the following refueling outage (which commenced in February 2022), the licensee did not prescribe documented instructions appropriate to the circumstances, nor accomplish activities in accordance with appropriate instructions, for activities affecting quality. Specifically, the instructions associated with recoating the safety related torus lacked steps to help prevent degradation of the coating. Further, some steps intended to protect the new coating were in the instructions but not followed.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Failure to Perform a Required Code Evaluations for Standby Liquid Control System Leakage

Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000341/2022004-05 Open/Closed	[H.12] - Avoid Complacency	71152A

The inspectors identified a Green finding with an associated Non-cited violation (NCV) of 10 CFR 50.55a, "Codes and Standards," for the licensee's failure to follow the ASME Code after discovering boric acid leakage in the standby liquid control system (SLC). Specifically, a code required evaluation was not performed as an alternative to correction actions.

Description:

During a review of condition assessment resolution documents (CARDs) as part of the in-depth PI&R baseline inspection sample, the inspectors reviewed CARD 22-30062, initiated on October 2, 2022. This licensee-identified CARD described evidence of borated water leakage from a flanged connection between the SLC system tank and heater C4101-S002 during planned VT-2 examinations. While no active leakage was noted, the CARD mentioned that this was a repeat issue from CARD 19-27781, initiated on October 11, 2019. While reviewing 19-27781, the inspectors noted that CARD 18-26451 (created August 27, 2018) had also documented the same borated water leak (however, this was not during a Code VT-2 exam). Per section XI of the 2013 ASME Code, specifically IWA-5250 and IWA-5251, leaks of this nature require one of two primary activities to be accomplished following identification. One option described in IWA-5250 involves removing a bolt from the affected connection and performing a VT-3 exam with a subsequent evaluation of it and the remaining bolts. Alternatively, a licensee could opt to replace all bolts. The other option, described in IAW-5251, involves the performance of an evaluation of the joint following IWA-5251(c).

Corrective action for CARD 18-26451 did not involve either code-required option. The licensee generated a work order, but as of the issuance of 19-27781 (a little over a year later), the work order still needed to be prepared. After identifying the issue again in 19-27781, the corrective action was to create a work order to accomplish the requirements of IWA-5250 during the RF20 refueling outage (spring of 2020). While the licensee provided some facts supporting operability, they did not perform an evaluation involving the criteria listed in IWA-5251(c). During RF20, the licensee removed the work activity to do the repairs and/or inspections to satisfy IWA-5250. An evaluation per IWA-5251 was also not completed at that time.

NRC inspector review of the most recent CARD identifying the leakage (22-30062) revealed that despite the cancellation of the work order in RF20, the licensee did not put actions in place to schedule the work during RF21, the spring 2022 refueling outage. In response to NRC questions, the licensee generated CARD 22-30116 to document that fact. After further discussions with the NRC, the licensee completed an evaluation per IWA-5251(c) in December 2022. The inspectors reviewed the evaluation and noted that the licensee had also identified a similar situation existed for another SLC system component. The licensee identified a possible body-to-bonnet leak on C4100F001, the SLC storage tank isolation valve, on October 2, 2022. This leakage had also been identified previously in 2019, along with the C4101-S002 leakage, but did not have the appropriate action taken per IWA-5251(c). The inspectors reviewed the evaluation performed for both components and did not have an issue with the licensee's conclusions that the components remained operable.

Corrective Actions: The licensee performed an evaluation per IWA-5251(c) to demonstrate operability of affected components.

Corrective Action References: CARDS 22-30062, 22-30061, and 22-30116

Performance Assessment:

Performance Deficiency: Following discovery of borated water leakage from SLC system components, the licensee did not perform the required actions set forth in the ASME Boiler and Pressure Vessel Code, section XI, 2013 edition (the edition the licensee is committed to). Specifically, the evaluation described in IWA-5251(c) to demonstrate acceptable continued operation after choosing to not perform the actions in IWA-5250, was not performed.

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, continuing to not repair nor perform evaluations per the ASME Code for degraded safety-related components could lead to further degradation where operability could be a concern.

Significance: The inspectors assessed the significance of the finding using IMC 0609 appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Specifically, after reviewing the evaluation performed by the licensee, the inspectors answered 'no' to all of the questions in section A of exhibit 2 regarding impacts to operability.

Cross-Cutting Aspect: H.12 - Avoid Complacency: Individuals recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes. Individuals implement appropriate error reduction tools. Specifically, the licensee deferred work on the degraded components but did not recognize until after the following refueling outage an opportunity had been missed to perform the work. Additionally, specific ASME Code requirements were not recognized despite multiple instances of identifying the same evidence of borated water leakage.

Enforcement:

Violation: 10 CFR 50.55a, Codes and Standards, incorporates by reference the ASME Boiler and Pressure Vessel Code, section XI, Rules for Inservice Inspection of Nuclear Power Plant Components—Division 1, 2013 addenda. Section IWA-5251 of the Code states, in part, that as an alternative to corrective action under IWA-5250 for leakage at bolted connections in

systems borated for the purposes of controlling reactivity, an evaluation incorporating the criteria of IWA-5251(c) can be performed to evaluate the consequences of continuing operation. Contrary to the above, since identification of conditions covered by IWA-5250/5251 on October 11, 2019, for safety-related SLC components C4101-S002 and C4100F001, until an evaluation was performed on December 13, 2022, the licensee did not complete evaluations in accordance with the requirements of IWA-5251(c).

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Observation: Corrective Action Program Product Quality	71152S
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The inspectors identified a potential negative trend in CAP execution and product quality. The issues identified by the inspectors were discussed with licensee management in the applicable departments, along with the performance improvement department. The licensee recognizes the issue and, in addition to revising some of the products in question, has created plans to improve and validate product quality. One example was the creation of a monthly condition assessment resolution document (CARD) closure quality reviews to be done by each department and NQA. Specific issues are listed below:

- The inspectors reviewed the causal evaluation associated with the scram in June of 2022 caused by a swarm of mayflies. The evaluation indicated problems between security and operations regarding working together to establish a plant lighting strategy. Further, it identified one of the causes as not utilizing the "DTE Mayfly Infestation Plan." There were also references to other site or departmental issues unrelated to the event. After questioning the licensee for more contextual information, the inspectors learned DTE never had an infestation plan until after the event occurred. Also, there wasn't a problem of security and operations resolving differences; rather, there was no discussion following the 2020 mayfly event to explore what could be done regarding the lighting. The licensee revised the evaluation to address those items and remove references to issues not relevant to the event.
- The inspectors reviewed the root cause evaluation associated with the February 2022 scram caused by a feedwater transient. While not having an issue with the root cause or proposed corrective actions, the inspectors uncovered more detail behind the 'legacy procedural issue' for securing a feed pump that appeared relevant to the cause and could inform future modifications to the procedure. The inspectors determined the legacy procedure issue stemmed from a specific procedure change in 2001 that changed how plant operators managed the feed pump speed and the minimum flow control valve during the shutdown.
- The inspectors reviewed the corrective action tools used to assess the actuator/yoke separation of a primary containment isolation valve and determined the performance gap analysis was too narrowly focused for the issue. Concurrently, site management also identified the issue, and as a result, a more detailed organizational cause evaluation was conducted.
- The licensee NQA organization identified a trend in December 2022 which highlighted several failed causal evaluation products. One particular product involved responding to an NRC non-cited violation (NCV) regarding reporting requirements. The inspectors noted that before the most recent NCV, another NCV in the same area from 2020 had been documented, indicating difficulty in achieving sustainable corrective actions for reportability issues.

EXIT MEETINGS AND DEBRIEFS

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

- On January 25, 2023, the inspectors presented the integrated inspection results to P. Dietrich, Senior VP and Chief Nuclear Officer and other members of the licensee staff.
- On November 4, 2022, the inspectors presented the ISFSI interim exit inspection results to P. Dietrich, Senior VP and Chief Nuclear Officer and other members of the licensee staff.
- On November 10, 2022, the inspectors presented the triennial heat sink inspection results to B. Sullivan and other members of the licensee staff.
- On December 1, 2022, the inspectors presented the emergency action level and emergency plan changes inspection results to P. Dietrich, Senior VP and Chief Nuclear Officer and other members of the licensee staff.

THIRD PARTY REVIEWS

Inspectors reviewed Institute on Nuclear Power Operations mid-cycle assessment reports that were issued during the inspection period.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
60855	Corrective Action Documents	19-24210	NQA - Holtec Field Condition Report	06/03/2019
		20-31838	ISFSI Helium Backfill Volume Calculation Uncertainty	11/02/2020
		21-30193	MOP11 Requires Revision for Combustible Material in ISFSI Building	11/16/2021
	Corrective Action Documents Resulting from Inspection	22-30743	No Written Evaluation Performed per 10 CFR 72.212(b)(7)	10/31/2022
	Miscellaneous		10 CFR 72.212 Report	3
		72.48 Screen 20-0003	EDP 80028	0
		72.48 Screen 20-0005	WO 57799481	0
	Procedures	MRP04	Radiation Protection Conduct Manual	47
	Radiation Surveys	P-M-20210628-6	ISFSI Pad	06/28/2021
		P-M-20211124-2	ISFSI Pad	11/24/2021
		P-M-20220629-12	ISFSI Pad	06/29/2022
		P-M-20221007-9	ISFSI Pad	10/07/2022
	Self-Assessments	Audit Report 22-0103	ISFSI Program	05/16/2022
	Work Orders	49479374	HI-STORM Annual Inspection	10/07/2019
		52206872	Perform 35.710.055 HI-STORM Monthly Screen Inspection	03/28/2020
		52805754	HI-STORM Annual Inspection	11/04/2020
		56125177	Perform 35.710.055 HI-STORM Monthly Screen Inspection	05/19/2021
57629881		HI-STORM Annual Inspection	10/20/2021	
57799481		Contingency ISFSI Haul Path	06/25/2020	
58429284		Perform 35.710.055 HI-STORM Monthly Screen Inspection	01/27/2022	
71111.01	Corrective Action Documents	20-32050	2022 Seasonal Readiness-Cold Weather Preps Milestones Tracking - Refuel Outage Dates	11/06/2020
		22-30324	Request Drawing Update to Shore Barrier Drawings Following Yearly Survey	10/12/2022

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
		22-30675	Alternate Diesel Fire Pump Enclosure Heater Not Functioning Correctly	10/27/2022	
		22-30812	Additional Information and Engineering Support Required to Troubleshoot U4100F171A	11/02/2022	
	Corrective Action Documents Resulting from Inspection	22-30305	NRC Identified-Bolt Missing from Pin on Door R1-8	10/11/2022	
	Drawings	6A721-2071	Reactor and Auxiliary Building Door Schedule and Types	09/06/2022	
		6M721-5720	Circulating Water System Functional Operating Sketch	03/18/2022	
		6M721-5726	General Service Water System Functional Operating Sketch	10/10/2018	
	Procedures	23.101	Circulating Water System	107	
		23.131	General Service Water System	114	
		23.208	RHR Complex Service Water Systems	134	
		35.000.242	Barrier Identification/Classification	62	
		MWC16-100	Seasonal Readiness	2	
	71111.04	Corrective Action Documents	09-00177	Packing Leak: Div. 2 Core Spray Keep Fill Isolation Valve Has 2 dpm Packing Leak	01/05/2009
			CARD 18-21676	Division 2 Core Spray Fill Outlet Isolation Valve Swing Bolt Broken	02/27/2018
		Drawings	6M271-2015	Diagram Station and Control Air	04/26/2022
6M271-5706-3			RHR Service Water Make-Up Decant and Overflow Systems Functional Operating Sketch	03/15/2022	
6M721-2034			Diagram Core Spray System C.S.S Reactor Building	04/09/2022	
6M721-2084			Diagram Residual Heat Removal (RHR) Division 1	03/17/2022	
6M721-2084			Diagram Residual Heat Removal Division 1	BS	
6M721-2135			Diagram Fire Protection System (Sheet 1)	BA	
6M721-2135-1			Diagram Fire Protection System (Sheet 2)	BL	
6M721-5444			Emergency Equipment Cooling Water Division 1	03/15/2022	
6M721-5707			Core Spray System Functional Operating Sketch	04/09/2022	
6M721-5721-1		Condensate Storage and Transfer System Functional Operating Sketch	03/26/2021		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		6M721-5729-1	Emergency Equipment Cooling Water (Division 1) Functional Operating Sketch	03/15/2022
		6M721-5729-2	Emergency Equipment Cooling Water (Division 2) Functional Operating Sketch	04/23/2022
		6M721N-2052	P&ID RHR Service Water System Division 1 RHR Complex	03/15/2022
	Miscellaneous		Division 1 RHR LPCI Standby Lineup Verification, Attachment 8A	149
	Procedures	23.127	Reactor Building Closed Cooling Water/Emergency Equipment Cooling Water System	152
		23.127 Attachment 1A	Div. 1 EECW Valve Lineup	09/21/2021
		23.127 Attachment 2A	Div. 1 EECW Electrical Lineup	04/09/2006
		23.127 Attachment 3A	Div. 1 EECW Instrument Lineup	11/15/2010
		23.127 Attachment 4	DIV RBCCW/ECCW Standby Verification Checklist	02/11/2021
		23.129 Attachment 1C	NIAS Valve Lineup	07/30/2015
		23.129 Attachment 2	Station and Control Air System Electrical Lineup	04/06/2009
		23.129 Attachment 3A	Station and Control Air System Instrument Lineup	01/27/2009
		23.129 Attachment 4	Div. 1 Control Air Standby Verification Checklist	01/11/2010
		23.203 Attachment 1B	Core Spray System: Div. 2 Initial Valve Lineup	11/15/2002
		23.203 Attachment 1C	Core Spray System: Common Initial Valve Lineup	01/08/2001
		23.203 Attachment 2B	Core Spray System: Div. 2 Electrical Lineup	11/15/2005
		23.203 Attachment 3B	Core Spray System: Division 2 Instrument Lineup	04/07/2009

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		23.203 Attachment 5B	Core Spray System: Div. 2 Initial Fill and Vent Independent Verification Checklist	01/11/2010
		23.203 Attachment 6B	Shifting Div. 2 Core Spray Suction to CST Independent Verification Checklist	03/03/2020
		23.203 Attachment 6D	Shifting Div. 2 Core Spray Suction to Torus Independent Verification Checklist	03/14/2020
		23.203 Enclosure A	Core Spray Manual Operation	11/27/2018
		23.205	Residual Heat Removal System	149
		23.208	RHR Complex Service Water Systems	134
		23.208 Attachment 1A	Div. 1 RHRSW Valve Lineup	01/24/2022
		23.208 Attachment 2A	Division 1 RHRSW Electrical Lineup	01/24/2022
		23.208 Attachment 3A	Division 1 RHRSW Instrument Lineup	01/19/2006
		23.303 Attachment 6B	Shifting Div. 2 Core Spray Suction to CST Independent Verification Checklist	03/03/2020
		23.309 Attachment 1	Division 1 Distribution System Electrical Lineup	12/09/2020
		6SD721-2530-10	One Line Diagram 260 /130V ESS Dual Battery 2PA Distribution-Division 1	03/16/2022
			Work Orders	29294552
71111.05	Fire Plans	FPRB-B-2b	Reactor Building Basement Northwest Corner Room, Zone 2, EL. 562'0"	3
		FPRB-B-3b	Reactor Building Basement Southwest Corner Room, Zone 3, EL. 562'0"	4
		FPRB-SB-2a	Reactor Building Sub-Basement Northwest Corner Room, Zone 2, EL. 540'0"	4
		FPRB-SB-3a	Reactor Building Sub-Basement Southwest Corner Room, Zone 3, EL. 540'0"	5
	Procedures	FP-RB-3-15a	Reactor Building Thermal Recombiner System Area, Zone 15, EL. 641'6"	4

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
		FP-RB-4-17a	Reactor Building SLC System Zone 17 EL. 659'6"	5	
		FPRB-SB-5A	Reactor Building Sub-Basement Northeast Corner Room Zone 5 EL 540'0"	6	
71111.06	Corrective Action Documents	22-31531	Extent of Condition Walkdown Revealed More Degraded MELB Barriers	12/02/2022	
		22-31541	Walkdown of Division 1 SWRG for Possible Spray Barrier Issues	12/02/2022	
	Corrective Action Documents Resulting from Inspection	22-31414	NRC Identified: Spray Cover in Division 2 Switchgear Room Degraded	11/29/2022	
		22-31415	NRC Identified: Pipe Cap Near P4400F449 Not Enclosed by Spray Guard	11/29/2022	
		22-31417	NRC Identified: Metal Enclosure on AB4 Not Sealed at Floor Level	11/29/2022	
		22-31419	NRC Identified: Piping Above HVAC Ducting on AB4 East Side Is Not Fully Enclosed in Blue Spray Guard	11/29/2022	
		22-31505	NRC Identified: Degraded Spray Shield on Division 1 EECW Piping	12/01/2022	
		22-31505	NRC Identified: Degraded Spray Shield on Division 1 EECW Piping	12/01/2022	
		22-31518	NRC Identified: Degraded MELB Barrier on Drywell Seal Rupture Drain to Condensate Storage Tank	12/01/2022	
		22-31571	NRC Identified: Work Order completed on 7/2/2019 Is Not Vaulted in Webarms	12/05/2022	
	Miscellaneous	22-31571	NRC Identified: Work Order Completed on 7/2/2019	12/05/2022	
		EF2-PRA-011	Internal Flood Walkdown Summary Notebook	0	
			EF2-PRA-012	Internal Flood Analysis Notebook	4
	Work Orders	49771630	Perform Inspection of Spray Shrouds	01/29/2018	
71111.07T	Calculations	DC-0249	RBCCW Hydraulics and Miscellaneous EECW Calculation	K	
		DC-0559	Vol I: Volume of Reservoir	F	
		DC-4931	Non-Interruptible Control Air System (NIAS) Calculations	J	
		DC-6286	EECW Heat Exchanger Performance Requirements with Plugging	A	
	Corrective Action	18-30419	MDCT A and B Fan Brake Nitrogen System Leaking	12/28/2018	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Documents	19-27521	Unexpected Increase in Div 1 EECW Heat Exchanger Differential Pressure After Recent Swap	10/03/2019
		19-27978	Trend in Anomalous System Parameter Measurements During Surveillances	10/21/2019
		19-28324	2019 NRC Triennial UHS Inspection: Average Silt Accumulation in UHS Reservoir Was Not Calculated in WO 47534163	10/31/2019
		20-23408	Division 1 Ultimate Heat Sink General Foreign Material (Found and Removed During Diving)	03/28/2020
		20-23984	Unrecovered Foreign Material - Orange Zip Tie	04/07/2020
		20-30217	2020 MMR14 Structures Monitoring Inspection of RHR High Roof (WO)	09/14/2020
		21-25607	Unknown Substance Coating Corrosion Coupon Holder	06/24/2021
		21-28982	Housekeeping Concerns on RHR Complex Roof	10/08/2021
		22-22162	Review of RHR Div 1 Reservoir Diving Reports	02/20/2022
		22-22580	Abnormal Moss Buildup and Debris Noted During Div 1 UHS Diving	02/24/2022
		22-24712	Completion of RF21 RHR Div 2 Reservoir Inspection Reports and Videos / Photos	04/05/2022
	Corrective Action Documents Resulting from Inspection	22-30458	2022 NRC Heat Sink Inspection: Degraded Concrete Noted on Pedestal Supports for EDGs 11, 12, 13, and 14 Exhaust Mufflers	10/18/2022
		22-30462	2022 NRC Heat Sink Inspection: Poor Housekeeping Noted During Walkdown	10/18/2022
		22-30463	2022 NRC Heat Sink Inspection: Partial Blockage Noted on South RHR Pump Room HVAC Outside Air Inlet	10/18/2022
		22-30480	WO Needed to Address Moss and Weeds on RHR Roof	10/19/2022
		22-30492	2022 NRC Heat Sink Performance Inspection: External Corrosion Identified on Floor Penetration Sleeve	10/19/2022
		22-30506	2022 NRC Heat Sink Inspection: Nitrogen Cylinders Not Correctly Labelled	10/22/2022
		22-30516	2022 NRC Heat Sink Performance Inspection: Enhancement Needed to PM Events P244 and P245	10/20/2022
		22-30549	Performance Engineering Extent of Condition per CARD	10/21/2022

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			22-30538	
		22-30666	2022 NRC Heat Sink Performance Inspection: Exterior Tape on Service Water Piping in RHR Complex	10/27/2022
	Drawings	6M721-2015	Diagram Station and Control Air	CU
		6M721-5357	Emergency Equipment Cooling Water System Division II	BW
		M-N-2026	General Arrangement RHR Complex Basement Floor Plan	E
		M-N-2031	General Arrangement RHR Complex Section "C-C"	F
		M-N-2050	Equipment Drains and Floor Drains Divisions 1 and 2 RHR Complex	O
	Miscellaneous		Commercial Diving and Marine Services Fermi RF21 Outage Diving Div 1	02/21/2022
			Commercial Diving and Marine Services Fermi RF21 Outage RHR Div 2 Dive Report	03/28/2022
		Consumable Materials Evaluation (CME) 21-0011	Cryotech CMA	01/15/2021
	Procedures	1D88	Division 1 EECW Outlet Temp	21
		20.127.01	Loss of Reactor Building Closed Cooling Water System	31
		20.129.01	Loss of Station and/or Control Air	38
		23.127	Reactor Building Closed Cooling Water / Emergency Equipment Cooling Water System	151
		23.129	Station and Control Air System	124
		23.208	RHR Complex Service Water Systems	134
		24.000.02	Shiftly, Daily, and Weekly Required Surveillances	161
		7D3	Div 1 RHR Reservoir Level Abnormal	19
		E11-XX	Residual Heat Removal Service Water (RHRSW) System Design Basis Document	E
		MES 52	GL 89-13 Safety Related Service Water Monitoring Program	10A
		MES 54	Heat Exchanger Component Monitoring Program	8
MMA10		System Cleanliness	12	
MMA17		Foreign Material Exclusion (FME)	17	
MMR14		Structures Monitoring	8	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Work Orders	MOP21	Housekeeping	7
		52194616	License Renewal Required Perform Div 1 Reservoir Zebra Mussel Inspection Dive	03/25/2020
		52195243	License Renewal Req'd Perform Div 2 RHR Reservoir Zebra Mussel and Ball Valve Inspection Dive	04/08/2020
		57269374	License Renewal - Perform Div 1 RHR Reservoir Zebra Mussel and Ball Valve Inspection Dive [Confidential]	02/13/2022
		57269883	License Renewal - Perform Div 2 RHR Reservoir Zebra Mussel and Ball Valve Inspection Dive	03/27/2022
71111.11A	Miscellaneous	2022 LOR NRC Annual OP Test Summary	Fermi 2022 Licensed Operator Requalification Exam Summary Which Provides the Exam Results for the Annual Operating Tests Administered from 10/11/2022 - 11/10/2022	11/21/2022
71111.11Q	Miscellaneous	LP-OP-202-2225	Containment Tech Specs and EALs	0
		SS-OP-202-2243	Simulator Lesson Plan	0
		SS-OP-904-2283	Fermi 2 Evaluation Scenario	0
	Procedures	24.202.01	HPCI Pump and Valve Operability Test at 1025 psi	123
		29.100.01 SH 1	RPV Control	19
		29.100.01 SH 2	Primary Containment Control	17
		29.100.01 SH 6	Curves, Cautions, and Tables	19
		ODE-10	Emergency Operating Procedure Expectations	36
		ODE-3	Communications	75
71111.12	Corrective Action Documents	18-23026	Reactor Scram Due to Loss of 64 Transformer	04/14/2018
		20-00399	TIP Detectors Retracting One Inch Behind the Programmed In-Shield Position	01/06/2021
		20-21388	TIP E Flux Readings Degrading Rapidly	07/28/2020
		20-26872	TIP C and TIP D Ball Valves Opened with TIPS In-Shield	06/22/2020
		21-22080	ITE Type K600-s Breakers Failed to Close	03/08/2021
		22-22886	Nova Inverters Found OOT	03/01/2022
		22-23206	Bus 72EB Pos 2D Failed to open	03/07/2022
		22-23772	Nova Inverter Tech Evaluation for Frequency Needed Due to Frequency Adjustment Issues	03/17/2022
	22-26656	Ground Fault on 72U, Loss of Bus	05/28/2022	
Drawings	61721-2421-05	Schematic Diagram RBCCW Supplemental Cooling Division	04/08/2017	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			2 Cooling Pumps	
	Miscellaneous	N/A	R1400 Electrical Switchgear 2021 Quarters 2 and 3 System Health Report	2021
		R1400	R1400 Electrical Switchgear System Get Well Plan (GWP)	6
		VMC1-545	Installation and Operations Manual for Nova Electric Galaxy Inverter	0
	Procedures	MMR APP B	Maintenance Rule Conduct Manual Appendix B-Terms and Definitions	8
		MMR APP E	Maintenance Rule Conduct Manual Appendix E-Maintenance Rule SSC Specific Functions	27
	Self-Assessments		R1400 Electric Switchgear System Health Q2 and Q3 2021	
			R1400 Electric Switchgear System Health Report Q4 2020	
			R1400 Electric Switchgear System Health Q4 2021	
	71111.13	Corrective Action Documents	22-30935	Relay Room H11P613
22-31390			MDCT Fan 'B' Loud Metallic Noise	11/28/2022
Drawings		6I721-2045-28	Internal-External Wiring Diagram Division 1 Process Instrumentation Cabinet H11P613 Part-3	AG
		6I721-2265-02	Schematic Diagram Reactor Water Cleanup System Instrumentation	AK
Miscellaneous		MWC15001	Risk Management Plan for South RFP Suction Line Flow Switch Low Source Valve Leak	12/20/2022
		VMR1-1.18	Millivolt to Current (MV/1) Transmitter	A
Procedures		MMR 12	Equipment Out of Service Risk Management	20A
		MMR Appendix H	On-line Core Damage Risk Management Guidelines	17
Work Orders	60510175	East Gland Seal Exhaust Motor Replacement	11/02/2022	
71111.15	Corrective Action Documents Resulting from Inspection	22-28738	MES27 Evaluation Does Not Support the Immediate Operability Determination Assumptions in CARD 22-28664	08/15/2022
	Engineering Evaluations	TE-E11-22-034	E1156C001B Mechanical Draft Cooling Tower Noise	0
		TE-R30-22-068	Licensing Basis for the Effect of Tornado Depressurization on a Running EDG	A
	Miscellaneous	Adverse Condition	B310F010B RRP B Seal Purge Regulating Valve	2

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		Monitoring Plan 20-010		
		DBD XXX-02	Design Basis Document	26
		Various	Various NRC Guidance Documents Pertaining to Operability and the Meaning of Design Basis	Various
	Procedures	20.307.01	Emergency Diesel Generator Failure	21
		22.307.01	Emergency Diesel Failure	22
		23.138.01	Reactor Recirculation System	119
71111.18	Corrective Action Documents	22-30843	PT FD76 Issues and EDM Impact	11/03/2022
	Corrective Action Documents Resulting from Inspection	22-30932	NRC Identified: RB5 EDM Equipment Box Label Not Correct	11/07/2022
		22-31503	NRC Identified Issue: 29.EDM.07 Procedure Issue	12/01/2022
	Drawings	29.200.xx	29.200 series Severe Accident Management Guidelines Flowcharts	various
	Engineering Changes	60106	Vehicle Barrier System Modification at Entrance to Alternate Access Portal	0
	Miscellaneous	NEI 14-01	Emergency Response Procedures and Guidelines for Beyond-Design-Basis Events and Severe Accidents	1
	Procedures	29.EDM.03	SFP Makeup/Spray - External Strategy	5
		29.EDM.07	Passive Ventilation of the Air Space Above the Fuel Pool [Confidential]	1
		78.000.69	Chemistry Special Test Procedure	27
		MGA 14	Severe Accident Management Program	6
71111.19	Corrective Action Documents	22-28853	T4100B007 Above Its Investigative Limit	08/18/2022
		22-30081	T41N227A As-Found Condition Not Functioning During the Performance of WO 46289018	10/03/2022
		22-30085	T4100 Failed PMT	10/03/2022
		22-30087	Unidentified Contingency Parts / Planning Impact	10/04/2022
	Drawings	6I721-2451-13	Schematic Diagram NIAS Div. 1 Dryer Controls	06/02/2016
		6M721-5707	Core Spray System Functional Operating Sketch	04/09/2022
		6M721-5730-3	Non-Interruptible Control Air System Division 1 and 2	03/29/2012

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Functional Operating Sketch	
		I-S-2481-03B	EDP 80165.022 (Fermi 2 Diesel Fire Pump Modification Alarm Circuitry)	11/08/2022
	Engineering Changes	EDP 80165	Fermi 2 Diesel Driven Fire Pump Replacement Modification	0
	Work Orders	44128550	Calibrate Div. 1 CCHVAC Chiller Condenser EECW Outlet Flow Switch	10/03/2022
		46289018	Calibrate Div. 1 CCHVAC Emergency Make-up and Recirc Air Temperature Switch	10/03/2022
		47264945	PDMA Testing (Motor Tagged) of Control Air Compressor Room Cool Unit	11/02/2022
		48640608	Replace Div. 1 Control Air Non-Interruptible Air Supply Isolation Valve Solenoid Valve	11/02/2022
		48860374	Calibrate Div. 1 CCHVAC Chiller Evaporator Low Temperature Switch	10/03/2022
		57420071	License Renewal Replace Suction and Discharge Valves with New and Refurbished Valves	11/02/2022
		58187204	Replace Non-Interruptible Air Supply Solenoid Valve	11/02/2022
		58471305	Control Air Non-Interruptible North Control Air Dryer West Chamber Relief Valve	11/02/2022
		61353693	Replace Division 1 North Control Air Compressor Unloading Cylinder Solenoid Valve	11/02/2022
		61563113	Calibrate Division 1 CCHVAC Equipment Room Temperature Switch	10/03/2022
		63600050	Test Division1 CCHVAC Zone 2 Cable Spreading Room Mixing Damper Temperature Loop	10/03/2022
		64193098	7D51 Division 1 Control Air System Trouble Due to High Differential Pressure. Calibrate or Replace	11/02/2022
66000026		Post Mod Testing for EDP 80165	11/23/2022	
71111.22	Corrective Action Documents	04-22892	EDG 11 DGSW Pump Min Flow Valve Not Indicating Fully Closed	06/28/2004
		04-25803	Rework EDG-11, 12, and 14 DGSW Minimum Flow Valves	11/19/2004
		21-23411	Step Change in RB Steam Tunnel Temperature Due to Possible HPCI Steam Leak	04/16/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		22-26208	Rounds Needs Updated	05/11/2022
		22-29106	Increased Unidentified Leakage in Drywell DD72 Sump During Division 2 EECW Pump and Valve Surveillance 24.107.09 Section 5.1	08/29/2022
		22-29187	Drywell Unidentified Leakage Update	08/31/2022
		22-29282	Drywell Sump Leakage Increase	09/02/2022
		22-29536	Performing MMA26 for CARD 22-27022 DW Unidentified Leakage	09/14/2022
		22-30145	R30-F402 Indicating 10 Percent Open When Valve Should Be Closed	10/05/2022
		22-30170	No Flow, Suspect Drain Line Clogged	10/05/2022
		22-31365	0.8" Step Change in Drywell Floor Drain Sump Level Following Pumpdown	11/26/2022
	22-31450	Investigation of Parameters Around a Run of HPCI	11/30/2022	
	Corrective Action Documents Resulting from Inspection	22-23089	NRC Concern - Operations Rounds Details on Safety-Related Motor Oil Levels	03/04/2022
	Drawings	6I721-2572-28	4160V ESS Buses 64B and 64C Load Shedding Strings	V
		6I721-257B-05	Relay and Metering Diagram 4160V ESS Bus 64B	U
		6I721N-2572-17	4160V ESS Diesel Bus 11EA Load Shedding Strings	Y
		6I721N-2578-06	Relaying and Metering Diagram Diesel Generator 11 Unit 2	X
		6M721-3361-1	Standby Liquid Control Pump, Reactor Building, Unit 2	P
		6SD721-2500-03	One Line Diagram 4160V System Service Buses 64B, 64C	S
	Miscellaneous	N/A	Control Room Narrative Logs from 11/13/2022 to 11/30/2022	11/30/2022
		VMR1-47.1	Union Pump	B
		VMR1-47.4	Gear Reducers	A
		VMR1-62	Triclad Vertical Induction Motor	F
		VMS25-39	Centrifugal Water Chillers	L
	Procedures	24.207.09	Division 2 EECW Pump and Valve Operability	47
		24.307.34	DGSW, DFOT, and Starting Air Operability Test EDG 11	58
		42.302.07	Calibration and Functional Test of Division 1 4160 Volt Bus	38

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Work Orders		64B Undervoltage Relays	
		MES 49	Evaluation and Control of Leakage from Class 1, 2, and 3 Piping Systems	9
		56289097	Perform 3-Year Performance Testing of N+1 Train Dominator and Neptune Equipment	09/03/2021
		60264432	Perform 42.302.07 Division 1 Bus 64B 4160V Undervoltage Relays Cal/Funct	10/06/2022
		61256368	Perform 3-Year Performance Test of N Train Dominator and Neptune Equipment	09/03/2021
		61905540	Perform 24.307.34 Sec-5.1 and 5.2 DGSW and DFOT Pump and Valve Operability Test - EDG 11	09/02/2022
		66926147	Perform 24.20201 HPCI Pump/Flow Test and Valve Stroke at 1025 psig	11/29/2022
71114.04	Miscellaneous	2021-08E	50.54(q) Evaluation - Spent Fuel Pool Level Updates for RA2.3, RS2.1, and RG2.1	09/21/2021
		2021-35S	50.54(q) Screen - Spent Fuel Pool Level Updates for RA2.3, RS2.1, and RG2.1	09/21/2021
	Procedures	EP-101	Classification of Emergencies	43A
		EP-101	Classification of Emergencies	44
71114.06	Procedures	EP-101	Classifications of Emergencies	44
71152A	Corrective Action Documents	13-24841	EDG Steady State Voltage and Frequency Tech Spec Ranges	07/10/2013
		18-26451	SLC Storage Tank Heater B Leak	08/27/2018
		19-27780	VT-2 Inspection Results - C4100F001	10/11/2019
		19-27781	VT-2 Inspection Results - C4101S002	10/11/2019
		20-24915	CSRT Dry Run Findings	04/21/2020
		20-27392	Safety Concern	06/28/2020
		20-27659	Safety Concern - Questionable Decision Making Leading to Error Likely Situation	07/05/2020
		21-24291	3D17 IPCS Computer Trouble Due to Loss of SS1	05/16/2021
		21-28792	SS-1 CARD Documentation Requires Investigation	10/04/2021
		22-21059	Product Failed EQRT	02/03/2022
		22-23915	Discrepancy Identified in RF20 Torus Recoat WO 55151575	03/19/2022

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
		22-25370	NQA RF21 - Complete MES 27 Risk Evaluation for CARD 13-24841	04/19/2022	
		22-25370	NQA RF21 - Complete MES 27 Risk Evaluation for CARD 13-24841	04/19/2022	
		22-28341	NQA Audit 22-0107 Deficiency - Untimely Actions for SPING and SS1 Computer Replacement	07/29/2022	
		22-29030	SPING Flow Calibration Review	08/25/2022	
		22-30062	VT-2 Exam Results - C4101S002	10/02/2022	
		22-30739	3D82 MS Steam Line Channel A/B/C/D Radiation Monitor Hi-Hi Due to Channel A	10/31/2022	
		22-31322	Non-Functional Category C EITER (EP-580)	11/22/2022	
		22-31437	Evaluate Fermi Operating License 2.C.10 for Amendment	11/29/2022	
		Corrective Action Documents Resulting from Inspection	22-30092	NRC Identified: Missed LER for Past Operability of CARD 22-27461	10/04/2022
			22-30116	NRC Identified - Leaking SLC Bolted Connections not Inspected During RF21	10/04/2022
	Drawings	6I721-2095-14	Schematic Diagram Nuclear Steam Supply Shut Off System Trip System A	O	
		6I721-2185-03	Schematic Diagram Process Radiation Monitor SYS Main Steam Line Rad Monitor Sub SYS D1103	N	
		6I721-2351-02	Schematic Diagram Condenser Vacuum Pump East (N6101C001)	K	
	Miscellaneous		RERP Plan	49	
			U.S. Nuclear Regulatory Commission Regulatory Guide	3	
		22-022 ISI/NDE-IST Program Evaluation Sheet	Standby Liquid Control Flange Leakage Evaluation	0	
		Equipment Cause Evaluation	22-22967, RF21 MES 83-114 Inspection - Torus Immersion Space - Indications Identified in Coating on Bays 4 and 5	03/02/2022	
		HP Cause Evaluation	20-24860, Worker Fell from Lower Work Platform	1	
		NEI 15-03	Licensee Actions to Address Nonconservative Technical Specifications	2	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		RERP Plan	Radiological Emergency Response Preparedness Plan	12/18/2019
	Operability Evaluations	MGA 21	General Administrative Conduct Manual	9
	Procedures	EP-101	Enclosure A - Classification Matrix	44
		EP-546	RERP Plan Implementing Procedure	8
		EP-580	Equipment Important to Emergency Response (EITER)	10
MGA 31		Supplemental Personnel Control Practice	4	
71152S	Corrective Action Documents	22-27456	Ground Fault on Y-Phase on Output Form Main Unit Transformer to CM and CF Output Breakers	06/27/2022
		22-27461	FO 22-01 Start Up Walkdown: MOV Actuator Disconnected From Bonnet	06/27/2022
		22-27473	Procedure Revision for Mayfly Infestation Preparation Plan 27.322	06/27/2022
		22-27475	Actuator Broke Free of Yolk Mounting Bolts - B2103F019	06/27/2022
		22-27499	Add Circuits to 27.322 Mayfly Infestation	06/28/2022
		22-31628	Trend in NRC Identified CARDS Related to MELB Spray Shield Barriers	12/07/2022
		22-31631	Procedure 23.107 Does Not Work as Written	12/07/2022
		22-31951	Evaluate Emerging Trend of Failed MRC Products	12/19/2022
	Miscellaneous	Human Performance Cause Evaluation	22-30092 - NRC Identified: Missed LER for Past Operability of CARD 22-27461	09/13/2022
		Organizational Effectiveness Cause Evaluation	20-27545 - Loss of 345kv Due to Mayfly Infestation	2
Procedures	27.322	Mayfly Infestation Preparation Plan	17, 23	
71153	Corrective Action Documents	21-27388	HPCI and Div 2 EDG Sequencer Power Failures	08/22/2021
	Miscellaneous	LER 2021-001	Unrecognized Impact of Opening of Barrier Doors on High Energy Line Break Analysis	0
		LER 2022-003	Turbine Trip and Subsequent Reactor Trip Due to Mayflies	0
		NRC-22-0013	Licensee Event Report 2022-001	04/04/2022