



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
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LISLE, ILLINOIS 60532-4352

October 28, 2021

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

SUBJECT: FERMI POWER PLANT, UNIT 2 – INTEGRATED INSPECTION REPORT
05000341/2021003

Dear Mr. Dietrich:

On September 30, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Fermi Power Plant, Unit 2. On October 14, 2021, 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. One of these findings involved a violation of NRC requirements. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

A licensee-identified violation which was determined to be of very low safety significance is documented in this report. We are treating this violation as a non-cited violation (NCV) 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 Feliz-Adorno, Nestor
on 10/28/21

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

Docket No. 05000341
License No. NPF-43

Enclosure:
As stated

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Letter to Peter Dietrich from Néstor J. Félix Adorno dated October 28, 2021.

SUBJECT: FERMIL POWER PLANT, UNIT 2 – INTEGRATED INSPECTION REPORT
05000341/2021003

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

Docket Number: 05000341

License Number: NPF-43

Report Number: 05000341/2021003

Enterprise Identifier: I-2021-003-0087

Licensee: DTE Electric Company

Facility: Fermi Power Plant, Unit 2

Location: Newport, MI

Inspection Dates: July 1, 2021 to September 30, 2021

Inspectors: S. Bell, Health Physicist
T. Briley, Senior Resident Inspector
G. Hansen, Sr. Emergency Preparedness Inspector
R. Ng, Project Engineer
T. Taylor, Acting Senior Resident Inspector
D. Turpin, Reactor Engineer

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 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. A licensee-identified non-cited violation is documented in report section: 71111.13.

List of Findings and Violations

Failure to Adequately Position Alternate Diesel Fire Pump Suction Hose and Strainer Resulted in Equipment Damage During General Service Water Sluice Gate Operation			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green FIN 05000341/2021003-01 Open/Closed	[P.2] - Evaluation	71111.15
A self-revealed finding of very low safety significance (Green) was identified when the licensee failed to adequately position the alternate diesel fire pump (ADFP) suction hose and strainer to prevent interference with plant equipment as specified in Temporary Modification 21-0001. Specifically, during performance of routine general service water sluice gate operation, the ADFP suction hose and strainer were caught on a sluice gate and subsequently damaged. As a result, the ADFP was declared non-functional.			

Unanalyzed Condition due to Open Steam Tunnel Door			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000341/2021003-02 Open/Closed	[H.13] - Consistent Process	71111.15
The inspectors identified a finding of very low safety significance with an associated non-cited violation of 10 CFR 50.65 (a)(4) for the licensee's failure to assess and manage the risk associated with maintaining the reactor building steam tunnel (RBST) door open for longer than needed for normal ingress/egress. As a result, an unanalyzed condition was created regarding high energy and medium energy line breaks (HELBs and MELBs), and internal flooding.			

Additional Tracking Items

None.

PLANT STATUS

Unit 2 began the inspection period at rated thermal power. On July 2, 2021, the plant commenced a power reduction to approximately 58 percent to address a main condenser tube leak. The leak was repaired, and the plant returned to rated thermal power on July 11, 2021. On August 27, 2021, plant power was reduced due to an unexpected loss of the center heater drain pump. The plant was stabilized at approximately 55 percent power, the north heater drain pump was placed in service, and the plant was returned to rated thermal power later the same day. On September 16, 2021, the plant commenced a power reduction to approximately 47 percent for the repair of non-safety-related steam leaks and a rod pattern adjustment. The plant returned to rated thermal power on September 17, 2021 and remained there for the remainder of the inspection period.

INSPECTION SCOPES

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

Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), resident and regional inspectors were directed to begin telework and to remotely access licensee information using available technology. During this time, the resident inspectors performed periodic site visits each week, increasing the amount of time on site as local COVID-19 conditions permitted. As part of their onsite activities, resident inspectors conducted plant status activities as described in IMC 2515, Appendix D; observed risk significant activities; and completed on site portions of IPs. In addition, resident and regional baseline inspections were evaluated to determine if all or a portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In some cases, portions of an IP were completed remotely and on site. The inspections documented below met the objectives and requirements for completion of the IP.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

Impending Severe Weather Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated the adequacy of the overall preparations to protect risk-significant systems from impending storms forecasted during the week ending September 18, 2021.

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (2 Samples)

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

- (1) Division 2 residual heat removal/residual heat removal service water during emergency diesel generator (EDG) 12 maintenance during the week ending August 7, 2021
- (2) Standby feedwater (SBFW) during unplanned high pressure coolant injection (HPCI) inoperability during the week ending August 14, 2021

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (3 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) Relay room during the week ending August 14, 2021
- (2) EDG 13 and fuel oil storage tank (FOST) room during the week ending September 18, 2021
- (3) EDG 14 and FOST room during the week ending September 18, 2021

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 placement of the north heater drain pump (HDP) in service and the associated power ascension following the center HDP trip and unplanned power reduction on August 28, 2021. Additionally, the inspectors observed a planned power reduction on September 16, 2021 to address non-safety-related steam leaks and a rod pattern adjustment.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (2 Samples 1 Partial)

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

- (1) General Electric type HFA relays
- (2) Standby gas treatment system
- (3) (Partial)
Residual heat removal service water system

71111.13 - Maintenance Risk Assessments and Emergent Work Control

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

The inspectors evaluated the 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) Planned EDG 11 and reactor core isolation cooling system work the week ending April 10, 2021
- (2) Main condenser tube leak and associated emergent work activities for investigation and repair during the weeks ending July 3 and July 10, 2021
- (3) Unplanned HPCI inoperability during the week ending August 14, 2021 due to an error signal on the controller
- (4) Trip of the center HDP on August 27, 2021
- (5) Removal of the southeast reactor building subbasement sump covers during maintenance during the week ending September 4, 2021
- (6) Swap of reference leg backfill system the week ending September 25, 2021

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (6 Samples)

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

- (1) Alternate diesel fire pump suction hose damaged by general service water sluice gate during the week ending April 24, 2021
- (2) Spent fuel pool Boral test coupon results during the week ending July 24, 2021
- (3) Operability and functionality of reactor building steam tunnel equipment with area temperatures above the administrative design limit due to a steam leak, completed May 8, 2021
- (4) Mechanical draft cooling tower (MCDT) fan 'C' low oil level during the week ending July 31, 2021
- (5) Reactor water cleanup system (RWCU) isolation operability based on design calculation questions on September 2, 2021
- (6) Impact of maintaining the reactor building steam tunnel door open during at-power operations during the week ending October 2, 2021

71111.19 - Post-Maintenance Testing

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

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

- (1) Planned maintenance on EDG 12 during the week ending August 21, 2021
- (2) HPCI run following orifice plate inspections during the week ending September 18, 2021
- (3) Emergent DC power issue during the week ending September 18, 2021

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

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

- (1) Jet pump 5 calibration during the week ending July 17, 2021

Inservice Testing (IP Section 03.01) (1 Sample)

- (1) EDG 14 diesel generator service water test (w/ fuel oil and air testing) during the week ending August 7, 2021

71114.02 - Alert and Notification System Testing

Inspection Review (IP Section 02.01-02.04) (1 Sample)

- (1) The inspectors evaluated the following maintenance and testing of the alert and notification system:
 - Annual siren inspection and maintenance records for the period from June 2019 to June 2021
 - Monthly alert notification system (siren) tests for the period from June 2019 to June 2021

71114.03 - Emergency Response Organization Staffing and Augmentation System

Inspection Review (IP Section 02.01-02.02) (1 Sample)

- (1) The inspectors evaluated the readiness of the Emergency Preparedness Organization

71114.05 - Maintenance of Emergency Preparedness

Inspection Review (IP Section 02.01 - 02.11) (1 Sample)

- (1) The inspectors evaluated the maintenance of the emergency preparedness program

71114.06 - Drill Evaluation

Drill/Training Evolution Observation (IP Section 03.02) (1 Sample)

The inspectors evaluated:

- (1) Emergency preparedness drill on August 10, 2021

RADIATION SAFETY

71124.02 - Occupational ALARA Planning and Controls

Radiological Work Planning (IP Section 03.01) (3 Samples)

The inspectors evaluated the licensee's radiological work planning. The inspectors reviewed the following activities:

- (1) RWP 20-2040; Torus Recoat Project - Overall Diving, Decon, Wash Down, Water Management and Associated Work
- (2) RWP 20-2042, Torus Recoat Project - Grit Blasting, Painting, Demob, Shipping and Associated Work
- (3) RWP 20-2043, Downcomer Vent Header Emergent Repairs

Verification of Dose Estimates and Exposure Tracking Systems (IP Section 03.02) (5 Samples)

The inspectors evaluated dose estimates and exposure tracking. The inspectors reviewed the following as low as reasonably achievable (ALARA) planning documents and the associated radiological outcome evaluations:

- (1) RWP 20-2040; Torus Recoat Project - Overall Diving, Decon, Wash Down, Water Management and Associated Work; ALARA Plans, Work in Progress Reports, and Post Job Completion ALARA Evaluations
- (2) RWP 20-2042, Torus Recoat Project - Grit Blasting, Painting, Demob, Shipping and Associated Work, ALARA Plans, Work in Progress Reports, and Post Job Completion ALARA Evaluations
- (3) RWP 20-2043, Downcomer Vent Header Emergent Repairs., ALARA Plans, Work in Progress Reports and Post Job Completion ALARA Evaluations
- (4) RWP 20-2025, G33 (RWCU), P73 (HWC) System Maintenance and Inspection, ALARA Plans, Work in Progress Reports and Post Job Completion ALARA Evaluations
- (5) RWP 20-4002, RB5 - Reactor Core Alterations, Bridge Maintenance, LPRM Replacement and Support Activities, ALARA Plans, Work in Progress Reports and Post Job Completion ALARA Evaluation

Implementation of ALARA and Radiological Work Controls (IP Section 03.03) (2 Samples)

The inspectors reviewed as low as reasonably achievable practices and radiological work controls. The inspectors reviewed the following activities:

- (1) RWP 21-1031, G33 (RWCU) System Maintenance and Inspection
- (2) RWP 21-013, Scaffold Group Tasks

Radiation Worker Performance (IP Section 03.04) (1 Sample)

The inspectors observed the following activities:

- (1) The build of scaffolding in the drywell personnel access area which was located in a high radiation area

71124.03 - In-Plant Airborne Radioactivity Control and Mitigation

Permanent Ventilation Systems (IP Section 03.01) (1 Sample)

The inspectors evaluated the configuration of the following permanently installed ventilation systems:

- (1) Radioactive Waste Building Ventilation
Turbine Building Ventilation

Use of Respiratory Protection Devices (IP Section 03.03) (1 Sample)

- (1) The inspectors evaluated the licensee's use of respiratory protection devices including the observation of quantitative respirator fit tests

Self-Contained Breathing Apparatus for Emergency Use (IP Section 03.04) (1 Sample)

- (1) The inspectors observed the licensee's inspection of the MSA Air Hawk self-contained breathing apparatuses.

71124.05 - Radiation Monitoring Instrumentation

Walkdowns and Observations (IP Section 03.01) (5 Samples)

The inspectors evaluated the following radiation detection instrumentation during plant walkdowns:

- (1) The inspectors observed the operation of the Atlan-Tech Whole Body Counter
- (2) The inspectors observed the operation of the Hopewell Designs instrumentation calibrator
- (3) The inspectors observed the instrumentation available for use at the RP instrumentation calibration facility and the Radiologically Controlled Area (RCA) exit
- (4) The inspectors observed the operation of the continuous air monitors located within the Turbine Building
- (5) The inspectors observed the radioactive source response checks of the instrumentation located at the alternate RCA access facility

71124.06 - Radioactive Gaseous and Liquid Effluent Treatment

Walkdowns and Observations (IP Section 03.01) (2 Samples)

The inspectors evaluated the following radioactive effluent systems during walkdowns:

- (1) Liquid radioactive effluent release system including release tanks and liquid effluent release monitor
- (2) Gaseous effluent off gas system

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

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

- (1) July 1, 2020 through June 30, 2021

MS09: Residual Heat Removal Systems (IP Section 02.08) (1 Sample)

- (1) July 1, 2020 through June 30, 2021

MS10: Cooling Water Support Systems (IP Section 02.09) (1 Sample)

- (1) July 1, 2020 through June 30, 2021

EP01: Drill/Exercise Performance (DEP) Sample (IP Section 02.12) (1 Sample)

- (1) October 1, 2020 through March 31, 2021

EP02: Emergency Response Organization (ERO) Drill Participation (IP Section 02.13) (1 Sample)

- (1) October 1, 2020 through March 31, 2021

EP03: Alert and Notification System (ANS) Reliability Sample (IP Section 02.14) (1 Sample)

- (1) October 1, 2020 through March 31, 2021

71152 - Problem Identification and Resolution

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) Scaffold and storage issues during the week ending September 18, 2021
- (2) E5150F008 reactor core isolation cooling valve packing leak during the week ending September 18, 2021

INSPECTION RESULTS

Licensee-Identified Non-Cited Violation	71111.13
This violation of very low safety significance was identified by the licensee and has been entered into the licensee corrective action program and is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.	
<p>Violation: Title 10 CFR 50.65(a)(4) states, in part, before performing maintenance activities (including but not limited to surveillance, post-maintenance testing, and corrective and preventive maintenance), the licensee shall assess and manage the increase in risk that may result from the proposed maintenance activities.</p> <p>Contrary to the above, on April 4, 2021, the licensee did not assess and manage the increase in risk before performing planned lockout relay surveillance testing associated with emergency diesel generator (EDG) 11 and planned corrective maintenance on the reactor core isolation cooling (RCIC) warmup bypass inlet motor operated valve E5150F095 at the same time. Specifically, the licensee listed only valve E5150F095 as unavailable in the maintenance work order. However, the entire RCIC system was unavailable due to the clearance and tagging boundary impacting other RCIC structures, systems, and components. Therefore, the online probabilistic risk model was updated during work implementation to only show both EDG 11 and E5150F095 as unavailable. This resulted in a green probabilistic risk classification. After work had already commenced rendering both EDG 11 and RCIC systems unavailable, an on-shift senior reactor operator recognized the entire RCIC system should have been input to the online probabilistic risk model as unavailable. The result was a model output of a yellow probabilistic risk classification, which was an unplanned change in risk classification and missed opportunity to manage the increase in risk that resulted from the proposed maintenance activities beforehand.</p> <p>Significance/Severity: Green. The inspectors assessed the significance of the finding using Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process." Because the performance deficiency was associated with 10 CFR 50.65(a)(4) performance (Flow Chart 1), the incremental core damage probability deficit was $<1E-6$ and the incremental large early release probability deficit was $<1E-7$, the finding screened to Green.</p> <p>Corrective Action References: CARD 21-23130</p>	

Failure to Adequately Position Alternate Diesel Fire Pump Suction Hose and Strainer Resulted in Equipment Damage During General Service Water Sluice Gate Operation			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green FIN 05000341/2021003-01 Open/Closed	[P.2] - Evaluation	71111.15
A self-revealed finding of very low safety significance (Green) was identified when the licensee failed to adequately position the alternate diesel fire pump (ADFP) suction hose and strainer to prevent interference with plant equipment as specified in Temporary Modification 21-0001. Specifically, during performance of routine general service water sluice gate operation, the ADFP suction hose and strainer were caught on a sluice gate and subsequently damaged. As a result, the ADFP was declared non-functional.			
Description:			

On August 27, 2019, an ADFP was temporarily installed due to an equipment problem with the permanently installed diesel fire pump. The ADFP suction line was routed through the general service water pump house and into the general service water pump pit using flexible hoses with an attached suction strainer via temporary modification 19-0014. The general service water pump pit contained two motor operated sliding sluice gates that were used to physically isolate the general service water pump pit from Lake Erie if needed (such as during low lake level conditions). On October 20, 2020, during periodic general service water east and west sluice gate cycling operation, the west sluice gate was observed by local equipment operators to be catching on the ADFP flexible suction hose. Sluice gate operation was subsequently stopped prior to any equipment damage to the suction hose or sluice gate. CARD 20-31437 was generated to document the issue and corrective action was taken to physically remove the ADFP suction hose from the general service water pump pit. The ADFP was not in service at the time, nor required to be functional, as the permanently installed diesel fire pump had been returned to functional status on August 27, 2020 following maintenance. The licensee did not perform additional evaluation to determine the cause of the ADFP suction hose interference with the west general service water sluice gate since the temporary equipment had been removed.

On February 7, 2021, the ADFP was re-installed via temporary modification 21-0001 due to an equipment problem with the permanently installed diesel fire pump. Temporary modification 21-0001 listed CARD 20-31437 as applicable operating experience and stated, in part, the ADFP suction line will be routed to avoid interference with other plant equipment. In addition, it included a special precaution to ensure the suction hose strainer was positioned to preclude catching/interfering with the sluice gates.

On April 20, 2021, while performing routine general service water sluice gate operation, the ADFP suction hose was observed by local equipment operators to be catching on the west general service water sluice gate and an abnormal noise was heard. The ADFP was subsequently declared non-functional. Visual inspection of the ADFP suction line revealed damage to the flexible hose and the suction strainer had become detached. Technical Requirements Manual Limiting Condition for Operation 3.12.2, Condition A, allows up to a 14-day completion time to either restore or provide an alternate backup pump with one fire suppression pump non-functional. The ADFP was declared functional on April 28, 2021 following repair and installation of an additional suction line restraint to prevent catching on the general service water sluice gates.

Corrective Actions: The licensee's corrective actions included, but were not limited to, an investigation into the causes of the circumstances that led to the damaged ADFP suction line, installation of an additional ADFP suction line restraint, and additional written notes in the work instructions associated with periodic sluice gate operation for awareness of the potential for interference with the sluice gate when the ADFP is installed.

Corrective Action References: CARD 21-23483

Performance Assessment:

Performance Deficiency: The licensee's failure to adequately position the ADFP suction hose and strainer to prevent interference with plant equipment was contrary to Temporary Modification 21-0001 and was a performance deficiency. As a result, during performance of routine general service water sluice gate operation, the ADFP suction hose and strainer were caught on a sluice gate and subsequently damaged.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Protection Against External Factors 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, the failure to adequately position the ADFP suction hose and strainer resulted in the ADFP being declared non-functional due to interference with the west general service water sluice gate and subsequent equipment damage.

Significance: The inspectors assessed the significance of the finding using Appendix F, "Fire Protection and Post - Fire Safe Shutdown SDP." In accordance with Step 1.4.3, "Fire Water Supply," the inspectors determined that the finding was of very low safety significance (Green). Specifically, the electric fire pump was available to provide adequate fire water capacity for protection of equipment important to safe shutdown in the most limiting location onsite for the duration that the ADFP was non-functional.

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, an evaluation was not performed to determine the cause of the ADFP suction hose catching on the west general service water sluice gate in 2020. As a result, the ADFP suction line was re-installed in a similar manner in 2021 and the ADFP suction hose was caught again on the west general service water sluice gate.

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

Unanalyzed Condition due to Open Steam Tunnel Door

Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000341/2021003-02 Open/Closed	[H.13] - Consistent Process	71111.15

The inspectors identified a finding of very low safety significance with an associated non-cited violation of 10 CFR 50.65 (a)(4) for the licensee's failure to assess and manage the risk associated with maintaining the reactor building steam tunnel (RBST) door open for longer than needed for normal ingress/egress. As a result, an unanalyzed condition was created regarding high energy and medium energy line breaks (HELBs and MELBs), and internal flooding.

Description:

In April of 2021, the licensee noted indications of a steam leak in the RBST based on an upward trend in steam tunnel temperatures. Over the course of about a week, the licensee conducted three planned entries of personnel into the RBST to try to identify the leak source. The normally closed watertight door R1-11 was maintained open for longer than needed for normal ingress/egress but less than an hour for each entry. This door provided access from the reactor building first floor to the RBST and protected safety-related equipment in the reactor building from the effects of a HELB, MELB, and flooding from pipes in the RBST. Door R1-11 was listed as a barrier for these events in licensee procedure 35.000.242, "Barrier Identification and Classification," Revision 58.

While the licensee considered the industrial, radiological, and fire protection aspects of entering the RBST, the inspectors noted the licensee did not evaluate the impacts of maintaining door R1-11 open on temperature instruments inside the RBST and on components outside the RBST should a HELB, MELB, or flood occur. After evaluating the inspectors' concern, the licensee determined maintaining the door open for longer than normal ingress/egress was an unanalyzed condition due to the lack of an evaluation for these events with the door open at full power. The licensee also noted four other occasions within the past three years that the door was maintained open at power for longer than needed for ingress/egress, including an occasion that lasted 10 hours. On May 3, 2021, the licensee submitted a notification to the NRC regarding the unanalyzed condition (i.e., Event Notification 55231) and stopped maintaining the RBST door open. The licensee later completed a planned shutdown and repaired a leak from the packing area of a valve in the steam tunnel.

Corrective Actions: The licensee performed a root cause evaluation and initiated an analysis to determine the effects of maintaining door R1-11 open on components outside the RBST.

Corrective Action References: CARD 21-23855

Performance Assessment:

Performance Deficiency: The inspectors determined that the licensee's failure to assess and manage the increase in risk before maintaining door R1-11 open for longer than needed for ingress and egress as part of maintenance activities was contrary to 10 CFR 50.65 (a)(4) and was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Configuration 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, the failure to assess and manage the increase in risk before maintaining door R1-11 open for longer than needed for ingress and egress did not ensure multiple mitigating systems remained available, reliable, and capable of responding to pipe breaks originating in the RBST.

Significance: The inspectors assessed the significance of the finding using Appendix M, "Significance Determination Process Using Qualitative Criteria." The inspectors first referred to IMC 0609 Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," as the finding involved the licensee's assessment and management of risk associated with performing maintenance activities in accordance 10 CFR 50.65(a)(4). Appendix K contains a note that states it does not apply for situations where the licensee only performed qualitative analyses of plant configuration risk due to maintenance activities. For this finding, the risk was qualitative as it dealt with a degraded barrier (door R1-11). Per the note, the significance of this finding must be determined by an internal NRC management review using risk insights where possible. The inspectors utilized IMC 0612 Appendix M, to determine the significance of the finding.

The inspectors performed an initial evaluation per step 4.1 of Appendix M which had several qualitative considerations. The door to the steam tunnel was not blocked open, rather, it was held open by licensee personnel. It was designed to close in the outward direction, thereby offering a reasonable chance of being shut by any pressure buildup. Additionally, the steam tunnel contains blowout panels that are designed to relieve pressure to the turbine building.

Severe ruptures would likely blow the panels out and divert a significant amount of energy to the turbine building which is devoid of safety related components. Each period of time the door was open recently was less than one hour. Although there was a time in 2018 the door was open for approximately 10 hours, the plant was at low power for that entry. Given the low probability of a rupture in those time windows and the fact there was operable temperature detection instrumentation that would have isolated most ruptures in the steam tunnel quickly, the inspectors determined the finding was of very low safety significance (Green).

Cross-Cutting Aspect: H.13 - Consistent Process: Individuals use a consistent, systematic approach to make decisions. Risk insights are incorporated as appropriate. Specifically, the licensee root cause evaluation determined that individuals inconsistently referenced the applicable precautions and limitations contained in revision 58 of procedure 35.000.242 when managing the risk of HELB/MELB/flood barriers.

Enforcement:

Violation: 10 CFR 50.65 (a)(4) states, in part, that before performing maintenance activities, the licensee shall assess and manage the increase in risk that may result from the proposed maintenance activities. The licensee implemented this requirement, in part, with procedure 35.000.242, "Barrier Identification and Classification," Revision 58. It listed door R1-11 as a HELB/MELB/flood barrier and stated that doors in the power block should remain closed in Modes 1, 2, and 3 except for normal ingress and egress.

Contrary to the above, on April 17, 18, and 21 of 2021, the licensee did not assess and manage the increase in risk that may result from maintaining RBST door R1-11 open while performing a maintenance activity. Specifically, the licensee maintained door R1-11 open for longer than needed for ingress and egress while performing corrective maintenance inside the RBST. However, the licensee did not assess and manage the impact of a HELB, MELB, or flood originating in the RBST would have on safety-related components in the reactor building.

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

EXIT MEETINGS AND DEBRIEFS

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

- On October 14, 2021, the inspectors presented the integrated inspection results to Mr. P. Dietrich, Chief Nuclear Officer, and other members of the licensee staff.
- On July 16, 2021, the inspectors presented the emergency preparedness baseline inspection results to Mr. P. Dietrich, Chief Nuclear Officer, and other members of the licensee staff.
- On August 11, 2021, the inspectors presented the radiation protection baseline inspection results to Mr. E. Olson, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Miscellaneous	Risk Management Plan	Replace Reference Leg Backfill Train Filter	08/03/2021
	Procedures	20.000.01	Acts of Nature	56
		46.000.046	Operation of the Reactor Reference Leg Backfill System	43
		MOP01-200	Severe Weather Guidelines	4
71111.04	Drawings	6M721-2006	Condensate Storage and Transfer System Diagram	BJ
		6M721-5083	Piping and Instrument Diagram Standby Feedwater System	U
		M-5706-03	RHR Service Water Make Up Decant and Overflow Systems Functional Operating Sketch	AH
	Procedures	MMA 08	Scaffolding	20
71111.05	Corrective Action Documents	21-23209	Relay Room Main Halon Cylinder 'D' Indicating Low Pressure	04/11/2021
	Corrective Action Documents Resulting from Inspection	21-28273	NRC Identified Label and or Fire Pre Plan Deficiencies	09/20/2021
	Fire Plans	FP-AB-2-8	Relay Room, Zone 8, Elevation 613'6"	7
		FP-RHR-1-13-EDG	RHR Complex, EDG 13 Room, Elevation 590'0"	7
		FP-RHR-1-13-OS	RHR Complex, EDG 13 Oil Storage Room, Elevation 590'0"	4
		FP-RHR-1-14-EDG	RHR Complex, EDG 14 Room, Elevation 590'0"	6
		FP-RHR-1-14-OS	RHR Complex, EDG 14 Oil Storage Room, Elevation 590'0"	5
71111.11Q	Procedures	22.000.03	Power Operation 25 Percent to 100 Percent to 25 Percent	107
		23.108	Extraction Steam and Heater Drains	94
71111.12	Corrective Action Documents	18-25702	N2 Rack Very Low Margin for the Nitrogen Bottles	07/26/2018
		18-27012	Pressure Low for Nitrogen Bottles (20" Torus	09/18/2018

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
			Purge/Exhaust and Control for HCVS)		
		20-33146	Upgrade T4600F420 from Category 3 to Category 2A in AOV Program	12/22/2020	
		21-22837	Secondary Containment Hardened Vent and RB HVAC High Pressure N2 Supply Pressure Low	03/30/2021	
		21-22988	T4600F407 Failed to Stroke During 24.404.03	04/04/2021	
		21-22997	Vent Header Recoat Project Requires SGTS Division 1 and Division 2 Charcoal Replacement	04/05/2021	
		21-24863	E4150F042 Valve Slow to Open During 44.030.153	06/03/2021	
		21-25328	Identified Enhancements for HFA Relay Contact Inspections	06/16/2021	
		21-26025	E4150F042 Extent of Condition	07/08/2021	
		21-26058	New Relay Procedure	07/09/2021	
		Corrective Action Documents Resulting from Inspection	21-25339	Response to NRC Question Regarding HFA Relays Extent of Condition	06/16/2021
			21-28269	NRC Question: Accuracy of MRFF for CARD 21-22988	09/20/2021
		Engineering Evaluations	TE-ELC-17-046	Evaluation of GE HFA Relay Service Life	0
			TE-T46-21-026	T46K008A, Division 1 SGTS Exhaust Fan Vortex Damper E/P Transmitter, Out of Calibration	0
	Miscellaneous	T4600 - (a)(1) Action Plan	Division 1 SGTS Flow Out of Spec High	2	
	Procedures	29.ESP.07	Primary Containment Venting	12	
		35.318.017	Inspection and Testing of Multi-Contact Auxiliary Relays	53	
		MMR Appendix E	Maintenance Rule SSC Specific Functions	27	
		MMR 03	Scoping	6	
	71111.13	Corrective Action Documents	21-23130	Unplanned Risk Change from Green to Yellow	04/08/2021
			21-25888	Main Condenser Tube Leak (SW Quad)	07/03/2021
21-26061			Leaking Tube in Main Condenser Located with Helium	07/09/2021	
21-26388			Step Change in Division 1 Reference Leg Backfill	07/22/2021	
21-26554			Internal Contamination While Performing Tagout D074	07/28/2021	
21-26581			Unplanned Contaminated Area Greater Than 100 Square Foot RBB SE Quad	07/29/2021	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		21-26582	Crew Learning Opportunity: D074 Sump Cover Removed and Clearance Hung Without Engineering Evaluation	07/29/2021
		21-26646	Temporarily Removing Sump Covers for Inspections Needs to be Evaluated	07/31/2021
		21-27053	HPCI Flow Controller E4-K615 has "Flow Bad" Alarm Locked In	08/11/2021
	Corrective Action Documents Resulting from Inspection	21-26574	NRC Identified Transient Combustibles RB-1	07/28/2021
		21-26575	NRC Identified Inconsistent Labeling for G1103-C037B RB SE Equipment Drain Sump G1101-D074 West Pump	07/28/2021
		21-26577	NRC Identified: Removed Cover for RB SE Equipment Drain Sump 74 is a HELB/MELB/Flood Barrier	07/29/2021
	Drawings	6M721-2004	Condensate System	BC
		6M721-2007	Circulating Water System	BZ
		6M721-2032	Sump Pump Diagram Radwaste System	AL
		6M721-2223	Equipment Drains All Floors Auxiliary and Reactor Buildings	Y
	Engineering Evaluations	TE-G11-08-030	Justification for Why D073 Sump Cover is not a HELB/MELB Barrier	0
		TE-N61-15-078	Condenser Tube Plugging Limit	0
	Miscellaneous	EF2-PRA-011	Internal Flood Walkdown Summary Notebook	0
		Operator Log		08/10/2021
	Procedures	22.000.03	Power Operation 25% to 100% to 25%	107
		23.101	Circulating Water System	105
		23.108	Extraction Steam and Heater Drains	94
		46.000.046	Operation of the Reference Leg Backfill System	43
		MCE 03	Chemistry Sampling and Analysis	16
		MCE 03002	Chemistry Excursion Engineering Evaluation Report	4
		MMR APP H	Maintenance Rule Conduct Manual - Appendix H - On-Line Core Damage Risk Management Guidelines	16
MMR 12		Equipment Out of Service Risk Management	20A	
MOP 05		Control of Equipment	57	
ODE-20	Protected Equipment	27		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Work Orders	ODE-8	Administrative Guidelines and Desk Instructions	05/27/2021
		53648451	Replace E41K615	02/15/2021
		57278418	Functionally Test Undervoltage LOR 27X-72EA	04/08/2021
		58655283	G1101D074 Requires Cleaning to Mitigate Dose Rates on Sump Transfer Line	07/26/2021
		60266679	E5150F095 Is Leaking Steam	04/08/2021
		61684950	Main Condenser Tube Leak (SQ Quad)	07/04/2021
71111.15	Calculations	DC-5426	PBOC - High and Moderate Energy Line Break Evaluation	08/14/2015
		DC-5589	Reactor Building Environmental Response for HELB and LOCA Conditions	08/04/2007
		DC-5779	Calculation of Mass and Energy Release Rates for High Energy Line Breaks (HELB)	11/12/1999
		DECO-04-4653	Enrico Fermi Atomic Power Plant, Unit 2 RWCU Line Break Effects Evaluation of the Leak Detection Thermocouples on the Reactor Building Second Floor	June 1986
	Corrective Action Documents	10-25814	RB-1 Steam Tunnel Temperature is at the Max Design Temperature	07/10/2010
		19-27887	RWCU HELB Analysis in Torus Room did not Consider the Effects of Jet Impingement	10/16/2019
		20-31437	West GSW Sluice Gate Catching on ADFP Suction Hose	10/20/2021
		21-23483	West GSW Sluice Gate Catching on ADFP Suction Hose	04/20/2021
		21-23574	CLO: Poor Communication Causes Repeat Event on Surveillance	04/22/2021
		21-23904	Non-conservative Assumption in MSLB/FWLB Design Calcs	05/04/2021
		21-25105	Review of Vendor Inspection Report of Boral Test Coupons	06/09/2021
		21-25216	Oil Level 'C' MDCT Fan Gear Reducer is Low	06/12/2021
		21-26041	RB1 Temperature Excursion Long Term EQ Impact	07/09/2021
		21-26119	Lowered MDCT Oil Level	07/12/2021
21-27125	RWCU HELB Analysis in Torus Room Suggested	08/12/2021		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
			Approach for Resolution of Jet Impingement (CARD 19-27887)		
		21-27168	Operability Determination Potentially Impacted by On-Going Investigation Information Entered as CARD Note	08/13/2021	
	Drawings	2359	Rack Construction BWR Spent Fuel Storage Racks	4	
		2427	Rack Construction BWR Spent Fuel Storage Racks	6	
		2515	Test Coupon and Coupon Tree Spent Fuel Storage Racks	2	
		M-S-2000	General Service Water Pump House Mechanical Equipment Layout	E	
	Engineering Changes	TM 19-0014	Alternate Diesel Fire Pump	F	
		TM 21-0001	Alternate Diesel Fire Pump	A	
	Engineering Evaluations	Root Cause Evaluation Report	Potential Unanalyzed Condition Following Opening of Door R1-11	08/30/2021	
		TE-T22-21-019	PSA Risk Evaluation of Door R1-11 Open	0	
	Miscellaneous		Site EFD Reset - HU Reset Briefing Sheet	08/30/2021	
		0000 0024 8320 SFP	J1100Y000, F1600E011, A, B, C, D, E, F, G, H, I [Confidential]	3	
		3002013119	Evaluation of the Impact of Neutron Absorber Material Blistering and Pitting on Spent Fuel Pool Reactivity	May 2018	
		NET-28084-002-01	Inspection and Testing of BORAL Surveillance Coupons from Fermi 2 Generating Station [Proprietary]	0	
	Procedures	35.000.242	Barrier Identification/Classification	59	
		MMR 12	Maintenance Rule Conduct Manual	20A	
	Work Orders	60388549	Implement AWA Number 1 for TM 21-0001 Rev A	02/24/2021	
		60987174	West GSW Sluice Gate Catching on ADFP Suction Hose	04/28/2021	
	71111.19	Corrective Action Documents	21-26665	PI Testing	08/02/2021
			21-26702	RHR 2 EDG 12 Switchgear	08/02/2021
21-26721			Significant Wear on 2 and 10 Lower Pistons	08/03/2021	
21-26804			R30FA04C and R30FA05C are Continuously Leaking Air Through their Vent Ports	08/06/2021	
21-26860			EDG 12 Starting Air Compressor Lube Oil Moisture	08/07/2021	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Greater Than Expected	
		21-26991	EDG12 SAC Increased Run Times Post SSO	08/09/2021
		21-27388	HPCI and Division 2 EDG Sequencer Power Failures	08/22/2021
		21-27395	130V Battery Charger 2B-2 Low Voltage	08/23/2021
		21-27397	Division 2 EDG Automatic Load Sequencer Power Supply (PS-2) Failed	08/23/2021
		21-27428	Bench Calibration Found OOT for New Inverter	08/24/2021
		21-27683	Equalize Timer will Spuriously go into Equalize	08/31/2021
	Drawings	6I721-2225-02	HPCI System Power Distribution	S
		6I721-2714-40	EDG Automatic Digital Load Sequencing System H11P898B	G
		6M721-2035	High Pressure Coolant Injection System Reactor Building	BQ
		6M721-2043	High Pressure Coolant Injection System Barometric CNDR Reactor Building	AJ
		6SD721-2530-11	260/130V Essential Dual Battery 2PB Distribution - Division 2	AS
	Miscellaneous	Plan of the Day	E4100 - High Pressure Coolant Injection General	08/16/2021
		VME8-1.1	Colt Industries 12 Cylinder Model 38TD8-1/8 Emergency Diesel Generators [Confidential]	AC
	Procedures	24.202.01	HPCI Pump and Valve Operability Test at 1025 PSI	122
		34.307.001	Emergency Diesel Generators - Inspection and Preventive Maintenance	84
		35.307.017	Emergency Diesel Generators - Electrical Inspection and Preventive Maintenance	6
		MMA 17	Foreign Material Exclusion (FME)	16
	Work Orders	56641508	Replace 2301A and (DRU) Unit in EDG 12 Control Panel	08/02/2021
		56973956	Perform 24.202.08 Sec-5.2 HPCI LSFT and Pump Operability at 1025 PSIG	08/17/2021
		57163006	EDG 12 48 Month Mechanical PM	08/04/2021
		59210107	Disassemble, Inspect and Reassemble Spectacle Flanges (LR, OTL, AMP) E4150D016	08/16/2021
		61945080	EDG 12 Significant Wear on 2 and 10 Lower Pistons	08/02/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.22	Corrective Action Documents Resulting from Inspection	21-26565	NRC Identified: Adding Vibration Analysis Point Diagram to 24.307.37	07/28/2021
	Procedures	47.000.02	Mechanical Vibration Measurements for Trending	46
	Work Orders	56787386	Perform 24.307.37DGSW, DFOT and Starting Air Operability Test - EDG 14	07/28/2021
		60331762	Calibrate RPV Jet Pump 5 Flow/Pressure Indicating Loop	07/15/2021
71114.02	Corrective Action Documents	CARD 20-23535	Monroe County Central Dispatch Encoder	03/30/2020
		CARD 20-29639	Siren 32 Rotation Fail	08/26/2020
		CARD 20-31696	Unexpected Results During Monthly Siren Test	10/28/2020
		CARD 20-31697	Monroe County Central Dispatch Encoder	03/30/2020
		CARD 21-23363	Evaluate ANS Siren Failures to Determine Reliability Improvement Actions	04/15/2021
	Miscellaneous		FEMA Approval Letter for Fermi 2 ANS Design Report, Revision 1	11/30/2015
			Siren Test Results	05/01/2019-05/31/2021
			Siren Annual Preventative Maintenance Records	09/01/2019-06/30/2021
			DTE Energy Emergency Preparedness for Monroe and Wayne Counties 2021 (Handbook)	
	Procedures		Fermi 2 Radiological Emergency Response Preparedness Plan	48
			Alert and Notification System (ANS) Design Report	1
			Alert and Notification System (ANS) Design Report	2
		EP-560	Alert and Notification System Operation and Maintenance	7
71114.03	Corrective Action Documents	CARD 19-27240	Post ECOS Test Result Roll Up – Blue Team	09/25/2019
		CARD 19-27945	Suggestion to Improve Usability of ECOS	10/18/2019
		CARD 20-31620	Red Team I and C Engineer Failed to Respond to ECOS	10/27/2020
		CARD 21-23024	Two RERP EOF Team Members did not Respond to ECOS Call-Out (Red Team)	04/05/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
	Miscellaneous		Fermi 2 On-shift Staffing Analysis	12/20/2012	
			Fermi 2 ERO Team List	06/21/2021	
			ERO Team Training and Qualification Records (Sample – 12)	07/14/2021	
			ERO Quarterly Augmentation Drill Records	06/01/2019-06/30/2021	
	Procedures			Fermi 2 Radiological Emergency Response Preparedness Plan; Section B, Emergency Response Organization	48
		EP-290		Emergency Notifications	62
		EP-292		Emergency Call Out – Backup Method	32
		EP-540		Drills and Exercises	41
		EP-550		RERP Training Program	5B
		EP-570		Emergency Call Out System – Testing and Maintenance	6A
		EP-570, Attachment 1		ECOS Test Reviews (Quarterly)	June 2019–June 2021
		QP-ER-670		Radiological Emergency Response Preparedness Selection, Training and Qualification Program Description	8
	71114.05	Corrective Action Documents	19-28480	RERP Drill 10/13/2019: Weaknesses Observed in Dose Assessment – Marginal Performance	11/06/2019
20-32545			Missed EAL Classification (DEP Opportunity) During LOR Annual Exam	12/01/2020	
21-10089			The Intent of EP-204-01, Damage Control and Rescue, Section 4.2 is not Being Met Based on Current RERP/DCRT Staffing/Canvassing Practices	05/20/2021	
EP-290			Emergency Notifications	62	
EP-292			Emergency Call Out – Backup Method	32	
EP-580			Equipment Important to Emergency Response (EITER)	10	
EP-590			10 CFR 50.54(q) Screens and Evaluations	1	
Miscellaneous				Emergency Preparedness Letters of Agreements with Off-Site Response and Support Organizations	09/01/2019-09/30/2020
				Select Exercise and Drill Evaluation Reports	09/01/2019-04/30/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Quarterly Control Room ERF Testing and Maintenance Records	09/01/2019-04/30/2021
			Quarterly Emergency Operations Facility ERF Testing and Maintenance Records	09/01/2019-04/30/2021
			Quarterly Technical Support Center ERF Testing and Maintenance Records	09/30/2019-04/30/2021
			Quarterly Operations Support Center ERF Testing and Maintenance Records	09/30/2019-04/30/2021
		Audit Report 19-0109	Quality Assurance Audit of the Emergency Preparedness Program	09/27/2019
		Audit Report 20-0111	Quality Assurance Audit of the Emergency Preparedness Program	10/08/2020
		KLD TR-1137	Fermi 2 Nuclear Power Plant 2020 Population Update Analysis	09/26/2020
	Procedures	EP-101	Classifications	43A
		EP-601	Public Education and Information	11
71114.06	Miscellaneous		August 10, 2021 Emergency Preparedness Drill Package	08/10/2021
	Procedures	EP-101	Classification of Emergencies	43A
71124.02	ALARA Plans	20-2025	G33 (RWCU), P73 (HWC) System Maintenance and Inspection - ALARA Plans, Work in Progress Reports, and Post Job Evaluation	Various
		20-2040	Torus Recoat Project - Diving, Decon, Wash Down, Water Management, and Associated Work - ALARA Plans, Work in Progress Reviews, and Post Job Evaluation	Various
		20-2042	Torus Recoat Project - Grit Blasting, Painting, Demob, Shipping and Associated Work - ALARA Plans, Work in Progress Reviews, and Post Job Evaluation	Various
		20-2043	Torus Downcomer Vent Header Emergent Repairs - ALARA Plans, Work in Progress Reviews, and Post Job Evaluation	Various
		20-4002	RB5 - Reactor Core Alterations, Bridge Maintenance, LPRM Replacement and Support Activities - ALARA	Various

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Plans, Work in Progress Reviews and Post Job ALARA Evaluation	
		21-1031	June 2021 RWCU System Outage	0
	Corrective Action Documents	20-25334	RWCU Line Hydrolazing Evolutions Lessons Learned	04/28/2020
		20-32652-02	SAC Benchmarking Improvements	01/15/2021
		20-32652-08	Self-Assessment Recommendation - Improvements in Outage RWP Dose Estimates	04/23/2021
		21-23101	Self-Assessment Deficiency - Gap in RF20 Work in Progress Quality	04/07/2021
	Miscellaneous		Station ALARA Committee Reports for Refueling Outage RF20	Various
	Procedures	63.000.200	ALARA Reviews	46
		MRP 05	ALARA/RWPS	16
	Radiation Surveys	Survey P-M-20210616-7	Q-35 DW Personnel Access	06/16/2021
	Self-Assessments	NPRP-21-0037	QHAS - Occupational ALARA Planning and Controls (Inspection Plan 71124.02)	05/23/2021
71124.03	Miscellaneous		Grade D Air Sample Analysis for the Scott Air Compressor System (Second Quarter 2019 through Second Quarter 2021)	Various
			MSA SCBA Inspection Records (First Quarter 2021)	Various
			MSA SCBA Annual Calibration and Flow Tests	05/13/2021
			SCBA Qualification Records for the SRO/ROs On Shift 06/21/2021	Various
	Procedures	65.000.704	Issuance of Respiratory Protection Equipment	19
		65.000.717	Inspection, Maintenance and Hydrostatic Testing of Breathing Air Cylinders	12
		MRP 09	Respiratory Protection	18
		WI-RH-018	Work Instruction for Performing Quantitative Respiratory Fit Testing Using the TSI Model 8030 Portacount	14
	Radiation Surveys		RWP 21-1031, RWCU System Outage, Airborne Radioactivity Determinations	06/21/2021 - 06/22/2021
	Self-Assessments	NPRP-21-0038	Quick Hit Self-Assessment 71124.03 - In Plant Airborne Radioactivity Control and Mitigation and 71124.04 -	06/03/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Occupational Dose Assessment	
71151	Corrective Action Documents		CARDs related to E5100	07/01/2020-6/30/2021
		EP-540, Enclosure D	NRC Performance Indicators-RERP	41
	Corrective Action Documents Resulting from Inspection	21-28580	NRC Identified Error in RHRSW MSPI Hours for February 2021	09/28/2021
	Miscellaneous		Fermi 2 - Mitigating Systems Performance Index (MSPI) Basis Document	8
			MSPI Derivation Report - Cooling Water System Unavailability Index	06/2021
			MSPI Derivation Report - Cooling Water System Unreliability Index	06/2021
			MSPI Derivation Report - Residual Heat Removal System Unavailability Index	06/2021
			MSPI Derivation Report - Residual Heat Removal System Unreliability Index	06/2021
			Site MSPI Submittals for Heat Removal System	July 2020 - June 2021
			ALC Narrative Logs Containing E5100 7/1/2020 - 9/1/2020; 12/1/2020 - 2/1/2021; 5/1/2021 - 7/1/2021	09/20/2021
			Alert and Notification System Reliability Records	10/01/2020-03/31/2021
			Emergency Response Organization Drill Participation	10/01/2020-03/31/2021
			Drill and Exercise Performance Records	10/01/2020-03/31/2021
71152	Corrective Action Documents	21-24269	Observed Change in IPCS RCIC Steam Flow Indication	05/15/2021
		21-24290	Leak Walkdown - Damage to Valve Stem	05/16/2021
		21-27280	APS: Removal of Scaffolds Pending Engineer Approved Permanent Platforms	08/18/2021
	Corrective Action	21-26212	NRC Identified Missing Reviews on the 50-59 Form on a	07/15/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Documents Resulting from Inspection		Scaffold, WO 59193074	
		21-26754	NRC Identified 4 Scaffolds Constructed > 90 Days Ago	08/04/2021
	Drawings	5M721-6015	4" 900 OSY Powell OSY Gate Valve with Limitorque Operator	0
	Miscellaneous	Fermi Plant Log	Scaffold Log	August/September 2021
		PEP 33	Valve Packing Guide	0
	Procedures	MMA 08	Scaffolding	20
		MOP 23	Plant Storage	7