

UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION I 2100 RENAISSANCE BLVD., SUITE 100 KING OF PRUSSIA, PENNSYLVANIA 19406-2713

May 14, 2019

Mr. Bryan C. Hanson Senior Vice President, Exelon Generation Company, LLC President and Chief Nuclear Officer, Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555

SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT – INTEGRATED

INSPECTION REPORT 05000333/2019001

Dear Mr. Hanson:

On March 31, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the James A. FitzPatrick Nuclear Power Plant (FitzPatrick). On April 8, 2019, the NRC inspectors discussed the results of this inspection with Mr. Joseph Pacher, Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

NRC inspectors documented one finding of very low safety significance (Green) in this report. This finding involved a violation of NRC requirements.

If you contest the violation or significance or severity of the violation 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 I; the Director, Office of Enforcement; and the NRC resident inspector at FitzPatrick.

If you disagree with a cross-cutting aspect assignment 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 I; and the NRC resident inspector at FitzPatrick.

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

Sincerely,

/RA/

Anthony Dimitriadis, Chief Reactor Projects Branch 5 Division of Reactor Projects

Docket No. 50-333 License No. DPR-59

Enclosure:

Inspection Report 05000333/2019001

cc w/encl: Distsribution via ListServ

3 B. Hanson

SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT - INTEGRATED INSPECTION REPORT 05000333/2019001 DATED MAY 14, 2019

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U.S. NUCLEAR REGULATORY COMMISSION Inspection Report

Docket Number: 50-333

License Number: DPR-59

Report Number: 05000333/2019001

Enterprise Identifier: I-2019-001-0030

Licensee: Exelon Generation Company, LLC

Facility: James A. FitzPatrick Nuclear Power Plant

Location: Scriba, NY

Inspection Dates: January 1, 2019 to March 31, 2019

Inspectors: C. Highley, Acting Senior Resident Inspector

G. Stock, Resident Inspector P. Boguszewski, Project Engineer J. Kulp, Senior Reactor Inspector

A. Ziedonis, Senior Resident Inspector, Hope Creek Nuclear Station

Approved By: Anthony Dimitriadis, Chief

Reactor Projects Branch 5 Division of Reactor Projects

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a quarterly inspection at FitzPatrick in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to https://www.nrc.gov/reactors/operating/oversight.html for more information. Findings and violations being considered in the NRC's assessment are summarized in the table below.

List of Findings and Violations

Failure to Promptly Identify and Correct Condition Adverse to Quality Associated with						
Damaged Reactor Building Siding						
Cornerstone	Significance	Cross-cutting	Report			
		Aspect	Section			
Barrier Integrity	Green NCV 05000333/2019001-01 Open	[P.2] - Evaluation	71111.12			

The inspectors identified a Green, non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for Exelon's failure to promptly correct a condition adverse to quality. Specifically, damaged exterior siding on the reactor building, identified by inspectors in March 2018, was not repaired in a timely fashion. This resulted in further damage due to severe weather in February 2019 and degradation to the secondary containment boundary.

PLANT STATUS

FitzPatrick began the inspection period at rated thermal power. On March 2, 2019, operators reduced power to 20 percent to perform a power supply replacement in the electrohydraulic control system, main steam isolation valve testing, turbine valve testing, and a rod pattern adjustment. The unit was returned to rated thermal power on March 4, 2019. On March 22, 2019, operators reduced power to 65 percent to repair a condenser tube leak. The unit was returned to rated thermal power on March 23, 2019, and remained at or near rated thermal power for the remainder of the inspection period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed plant status activities described in IMC 2515, Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

Impending Severe Weather Sample (IP Section 03.03) (1 Sample)

The inspectors evaluated readiness for an impending winter storm, in accordance with AOP- 13, Severe Weather, Revision 34, on January 16, 2019.

71111.04 - Equipment Alignment

Partial Walkdown (IP Section 03.01) (5 Samples)

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

- (1) High pressure coolant injection during reactor core isolation cooling yellow risk window on January 6, 2019
- (2) Control room and relay room emergency ventilation system after surveillance testing on February 5, 2019
- (3) 'B' and 'D' emergency diesel generators during 'A' emergency diesel generator turbocharger replacement on February 20, 2019
- (4) Reactor core isolation cooling during high pressure coolant injection yellow risk on March 12. 2019
- (5) 'B' standby gas treatment system during 'A' standby gas treatment system maintenance on March 21, 2019

71111.04S - Equipment Alignment

Complete Walkdown (IP Section 02.02) (1 Sample)

The inspectors evaluated system configuration during a complete walkdown of the 'B' core spray system on March 18, 2019.

71111.05Q - Fire Protection

Quarterly Inspection (IP Section 03.01) (5 Samples)

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

- (1) East crescent area, fire area XVII/RB-1E on January 30, 2019
- (2) West crescent area, fire area XVIII/RB-1W on January 30, 2019
- (3) Turbine building 300' elevation including turbine deck, fire area TB-1 on March 1, 2019
- (4) Turbine building 272' elevation including condenser bay, fire area TB-1 on March 1, 2019
- (5) Relay room, fire area RR-1 on March 27, 2019

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

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

The inspectors observed and evaluated downpower of the reactor to 20 percent for electrohydraulic control power supply repair (OP-65, Startup and Shutdown Procedure, Revision 124), responses to annunciator alarms for 'A' and 'B' reactor feed pump seal trouble and 2B moisture drain tank low, communications between control room supervisor and reactor operator, and reactivity management, on March 1, 2019.

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

The inspectors observed and evaluated operations crew 'E' during licensed operator requalification examination, standby liquid control squib valve continuity circuit failure, AOP- 29 for jet pump malfunction, AOP-20 for loss of the 10700 bus, loss of feedwater, reactor protection system failure, alternate rod insertion of control rods, EOP-2 for reactor scram, and Emergency Action Level (EAL) Alert classification, on February 15, 2019.

71111.12 - Maintenance Effectiveness

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

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

(1) Commercial dedication package of the reactor core isolation cooling level switch for the condensate storage tanks on March 13, 2019

(2) Structural monitoring program review for the reactor building following secondary containment damage during high wind event on February 25, 2019

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (7 Samples)

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

- (1) High pressure coolant injection system during 13MOV-131, reactor core isolation cooling steam supply isolation valve, stroking and packing adjustment on January 6, 2019
- (2) Electrohyadraulic control system during troubleshooting of power supply on February 5, 2019
- (3) Risk mitigation actions during 'A' emergency diesel generator turbo replacement on February 21, 2019
- (4) Yellow risk during high winds on February 25, 2019
- (5) Yellow risk for high pressure coolant injection maintenance window on March 11, 2019
- (6) Yellow risk during 'A' standby gas treatment system maintenance window on March 20, 2019
- (7) Risk mitigation actions with Line 4 out of service on March 21, 2019

71111.15 - Operability Determinations and Functionality Assessments

Sample Selection (IP Section 02.01) (7 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) 'C' emergency diesel generator missing bolt on exhaust expansion joint on January 24, 2019
- (2) Electrohydraulic control system power supply intermittent failure on January 28, 2019
- (3) Chemistry analytical equipment failures on February 6, 2019
- (4) High pressure coolant injection torus discharge coating cracking on February 7, 2019
- (5) 'B' emergency service water strainer wall thinning on February 15, 2019
- (6) Main steam isolation valve total leakage on March 4, 2019
- (7) Reactor core isolation cooling steam isolation valve, 13MOV-131, steam leakage on March 13, 2019

71111.18 - Plant Modifications

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

The inspectors evaluated the following temporary or permanent modifications:

(1) Engineering Change 16513 - Evaluate Temporary Procedure to Maintain Ventilation in the Station Battery and Station Battery Charger Rooms For a Failure of One or

- More Battery Room Ventilation Components, Revision 0, for use of temporary ventilation during 'A' battery room ventilation work window, on January 29, 2019
- (2) Engineering Change 626680 Installation of Second Discharge Check Valve on Station Air Compressors, Revision 0, for 'A' service air compressor check valve modification, on March 15, 2019

71111.19 - Post Maintenance Testing

Post Maintenance Test Sample (IP Section 03.01) (6 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) Reactor core isolation cooling suction swap level switch replacement inside condensate storage tank on January 3, 2019
- (2) 'B' service air compressor after check valve modification on February 8, 2019
- (3) 'A' emergency diesel generator turbocharger replacement on February 20, 2019
- (4) Electrohydraulic power control power supply replacement on March 1, 2019
- (5) High pressure coolant injection maintenance window for 23MOV-57, outboard torus suction valve, limit torque diagnostic testing and 23MOV-14, turbine steam supply valve, breaker cubicle preventive maintenance on March 13, 2019
- (6) 'A' standby gas treatment system following damper maintenance and charcoal testing on March 22, 2019

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

In Service Testing (IST) (IP Section 03.01) (3 Samples)

- (1) ST-6HB, Standby Liquid Control 'B' Side Quarterly Operability Test, Revision 1, on January 8, 2019
- (2) ST-4N, High Pressure Coolant Injection Quick-Start, Inservice, and Transient Monitoring Test, Revision 70, on February 7, 2019
- (3) ST-2XB, Residual Heat Removal Service Water Loop 'B' Quarterly Operability Test, Revision 15; and ST-2AM, RHR Loop 'B' Quarterly Operability Test, Revision 40, on February 7, 2019

Surveillance Testing (IP Section 03.01) (4 Samples)

- (1) ST-9BA, 'A' and 'C' Emergency Diesel Generator and 'A' Emergency Service Water Pump Operability Test, Revision 17, on January 2, 2019
- (2) ST-9BB, 'B' and 'D' Emergency Diesel Generator Full Load Test and Emergency Service Water Pump Operability Test, Revision 16, on February 4, 2019
- (3) ST-41D, 27SOV-135B, Drywell Radiation Monitor 17-04-2 Sample Outer Isolation Valve; and 27SOV-135D, Drywell Radiation Monitor 17-04-2 Sample Inner Isolation Valve, Remote Valve Position Indication Verification Online Test, Revision 22; on February 16, 2019
- (4) SP-01.02, Observation of the Reactor Water Sampling and Analysis, Revision 30, on February 20, 2019

71114.06 - Drill Evaluation

<u>Drill and/or Simulator-Based Licensed Operator Requalification Training (IP Section 02.01)</u> (1 Sample)

The inspectors evaluated a simulator scenario including entries into AOP-29 jet pump malfunction, AOP-20 loss of the 10700 bus, loss of feedwater, reactor protection system failure, alternate rod insertion of control rods, and EOP-2, Reactor Pressure Vessel Control, Revision 11, resulting in an Alert declaration, on February 15, 2019.

Emergency Preparedness (EP) Drill (IP Section 02.01) (1 Sample)

The inspectors evaluated the conduct of a routine emergency planning drill observation on March 7, 2019.

OTHER ACTIVITIES - BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

BI01: Reactor Coolant System (RCS) Specific Activity Sample (IP Section 02.10) (1 Sample)

January 1, 2018 through December 31, 2018

IE01: Unplanned Scrams per 7000 Critical Hours Sample (IP Section 02.01) (1 Sample)

January 1, 2018 through December 31, 2018

<u>IE03: Unplanned Power Changes per 7000 Critical Hours Sample (IP Section 02.02) (1 Sample)</u>

January 1, 2018 through December 31, 2018

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

January 1, 2018 through December 31, 2018

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) CR 4172631 Possible Boron Found on 02-3NBI-32, Jet Pump Flow Indication Root Valve
- (2) IR 04147458 Core Spray System 'A' Loop Keep Fill Pump Problems

INSPECTION RESULTS

Failure to Promptly Identify and Correct Condition Adverse to Quality Associated with					
Damaged Reactor Building Siding					
Cornerstone	Significance	Cross-cutting	Report		
		Aspect	Section		
Barrier Integrity	Green	[P.2] -	71111.12		
	NCV 05000333/2019001-01	Evaluation			
	Open				

The inspectors identified a Green, non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for Exelon's failure to promptly correct a condition adverse to quality. Specifically, damaged exterior siding on the reactor building, identified by inspectors in March 2018, was not repaired in a timely fashion. This resulted in further damage due to severe weather in February 2019 and degradation to the secondary containment boundary.

<u>Description</u>: On March 12, 2018, inspectors identified a section of siding on the southwest side of the reactor building that had become separated from the inner structure. Insulation had begun to drop down through the opening due to the lack of an end cap. The end cap holds the lower end of the siding to the structure and secures the insulation between the inner structure and outer siding. IR 04114448 was generated to document the concern. A work order was generated as an action from the IR, however corrective actions were never scheduled to fix the damaged end cap.

On February 9, 2019, a wind storm caused additional damage to the area identified by the inspectors. Exelon generated IR 04218704 for the issue and contracted a vendor to inspect and correct potential damage. This was an opportunity for Exelon to recognize the missing end cap. On February 25, 2019, a storm with high winds of up to 80 mile-per-hour (mph) gusts hit the site. Significant damage was sustained on the southwest portion of the reactor building due to the high winds. The damage was mainly to the outer siding, however, it also compromised the inner siding which constitutes part of the secondary containment boundary. The FitzPatrick UFSAR states that the external siding is rated up to 90 mph wind speed before damage will occur. Furthermore, the UFSAR states that the external siding will be damaged but the internal siding, which constitutes the secondary containment boundary, will be unaffected. In this case, however, the missing end cap led to premature failure of the external siding, which then resulted in degradation to the secondary containment boundary. The high winds got behind the outer siding and pressurized the internal space allowing the outer siding to come loose. As a result, Exelon had to assess secondary containment operability and stage a temporary monitoring station at the opening to monitor releases if secondary containment differential pressure went positive while the opening existed.

Corrective Actions: Exelon entered the issue into the corrective action program as IR 04223309. Corrective actions included first temporary repairs to regain secondary containment integrity, and permanent repairs to return secondary containment to the original configuration. Furthermore, future inspections of the reactor building will be performed from a lift as opposed to from the ground to facilitate identification of similar issues in the future.

Corrective Action References: IRs 04114448, 04218704, 04223309

Performance Assessment:

Performance Deficiency: Exelon's failure to promptly correct a condition adverse to quality after identification by the inspectors was a performance deficiency. Specifically, the work order generated from the IR was never scheduled to allow for repairs to the reactor building. Approximately one year after identification, the uncorrected deficiency resulted in significant damage to the reactor building and degradation to secondary containment.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Configuration Control attribute of the Barrier Integrity cornerstone. The inspectors determined the finding was more than minor because it impacted the Barrier Integrity cornerstone attribute of Configuration Control and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from potential radionuclide releases caused by accidents or events. Specifically, following the damage to the reactor building siding there was an unanticipated, unmonitored pathway out of secondary containment.

Significance: The inspectors assessed the significance of the finding using Appendix A, "Significance Determination of Reactor Inspection Findings for At - Power Situations." The inspectors evaluated the finding in accordance with Exhibit 3 of IMC 0609, Appendix A, "The SDP for Findings At-Power," dated June 19, 2012, and determined the finding was of very low safety significance (Green) because the performance deficiency only represented a degradation of the radiological barrier function provided by the reactor building.

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. The cause of the finding was assigned a cross-cutting aspect of Problem Identification and Resolution, Evaluation, for Exelon's failure to thoroughly evaluate the damage to the reactor building siding and recognize the vulnerability to secondary containment.

Enforcement:

Violation: 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected. Contrary to the above, following identification in March 2018, Exelon failed to promptly correct a condition adverse to quality associated with damaged reactor building siding which ultimately led to degradation of the secondary containment boundary.

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

Minor Performance Deficiency

71152

Minor Performance Deficiency: The inspectors reviewed Exelon's response to challenges associated with performance of the core spray system 'A' loop keep-fill pump. Specifically, in June 2018, the core spray 'A' loop keep-fill pump was discovered by operators to be tripped due to thermal overload protection on two separate occasions within 8 days of each other

(IRs 4147458 and 4149470). In addition, in August 2018, operators received an overhead alarm in the main control room for the core spray 'A' discharge line not full (IR 4164981).

Following receipt of the overhead alarm in August 2018, the inspectors identified that operations did not follow procedure steps G.7.1 and G.7.2, required under OP-14, "Core Spray System," Revision 38, Section G.7. Specifically, these steps were required to ensure venting activities were performed in conformance with the analyzed venting configuration specified in engineering calculation JAF-CALC-12-0001, "Gas Void Venting Acceptance Criteria," Revision 0, which correlated an allowable void volume with a corresponding air vent time duration to ensure operability of various systems. Exelon captured the failure to follow the venting procedure under IR 04233179. The inspectors determined that not following the steps in procedure OP-14 constituted a performance deficiency. The inspectors noted good design control by Exelon, given that the operations venting procedures specified the same venting configuration that was analyzed in the engineering calculation.

Screening: The inspectors determined the performance deficiency was minor. The inspectors performed this determination in accordance with IMC 0612, Appendix B, "Issue Screening," because there was no impact on the safety function of the core spray system, based on engineering calculation of the actual air quantity vented being bounded by the limits specified in JAF-CALC-12-0001.

Observation 71152

In addition to the minor performance deficiency above, the inspectors identified inconsistencies in the venting procedure steps specified in OP-14 and ST-3A, "Core Spray Loop 'A' Quarterly Operability Test," Revision 25. Specifically, the venting steps in procedure ST-3A did not align with the analyzed venting configuration specified in engineering calculation JAF-CALC-12-0001. Exelon captured this inconsistency in procedure change request PCR-4545. Exelon performed an extent of condition review of other ST procedures, and identified 16 additional ST procedures that required revision to align with engineering calculation JAF-CALC-12-0001 (captured under PCR-4540 through 4544, 4546 through 4555, and 4566). The inspectors determined this issue was a minor observation, because there was no actual impact on any system safety functions.

The inspectors determined that the overall actions taken by the station in response to the core spray system 'A' train keep-fill pump challenges in June 2018 and August 2018 were commensurate with the circumstances. Exelon used the complex troubleshooting process to identify and correct the problem, which included draining the core spray system, and determined the keep-fill pump discharge check valve had failed closed. Exelon replaced the check valve, and wrote IR 4156970 and preventive maintenance change PMC-18-110523 to enhance the preventive maintenance frequency of the check valve.

Observation 71152

The inspectors reviewed Exelon's corrective actions associated with CR 4172631 to address the discovery of boric acid deposits on the stem and packing of valve 02-3NBI-32. The inspectors reviewed Exelon's work group evaluation which identified the source of the boric acid, generated corrective actions to remove residual boric acid from the system by flushing with water, and changed test procedures which are intended to prevent boron from reentering

the system. The inspectors determined Exelon's response was timely and commensurate with the safety significance of the issue, and included appropriate corrective actions.

EXIT MEETINGS AND DEBRIEFS

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

- On April 8, 2019, the inspector presented the quarterly resident inspection results to Joseph Pacher, Site Vice President and other members of the licensee staff.
- On February 13, 2019, the inspector presented the problem identification and resolution inspection results to Andrew Bratek and other members of the licensee staff.
- On March 26, 2019, the inspector presented the problem identification and resolution inspection results to William Drews and other members of the licensee staff.

DOCUMENTS REVIEWED

71111.04 - Adverse Weather Protection

Procedures

OP-14, Core Spray System, Revision 38 OP-20, Standby Gas Treatment System, Revision 37 ST-18BB, CREVAS 'B' Operability Test, Revision 5

Drawings

FB-35E, Flow Diagram Control Room Area Service and Chilled Water System 70, Revision 38 FB-45A, Flow Diagram Control and Relay Rooms Heating and Ventilation System 70, Revision 42

FM-22A, Flow Diagram Reactor Core Isolation Cooling System 13, Revision 57

FM-23, Flow Diagram Core Spray System 14, Revision 49

FM-25A, Flow Diagram High Pressure Coolant Injection System 23, Revision 75

FM-25B, Flow Diagram HPCI Lube Oil System 23, Revision 34

FM-48A, Flow Diagram Standby Gas Treatment System 01-125, Revision 30

FM-93A, Flow Diagram Fuel Oil Lines Emergency Diesel Generator System 93, Revision 22

FM-93C, Flow Diagram Engine Cooling and Lubrication Oil Emergency Diesel Generator System 93, Revision 9

FM-94A, Flow Diagram Air Start-up Lines Emergency Diesel Generator System 93, Revision 13

Miscellaneous

DBD-014, Design Basis Document for the Core Spray System 014, Revision 10 ENN-MS-S-009-JAF, JAF Safety System Function Sheets, Revision 2

71111.05 – Fire Protection

Procedures

PFP-PWR12, Relay Room / Elev. 286', Fire Area / Zone VII/RR-1

PFP-PWR14, Crescent Area East, Elev. 227' and 242' Fire Area XVII/Fire Zone RB-1E, Revision 3

PFP-PWR15, Crescent Area West, Elev. 227' and 242' Fire Area XVIII/Fire Zone RB-1W, Revision 5

PFP-PWR45, Turbine Building - North / Elev. 272', Fire Area / Zone IE/TB-1

PFP-PWR46, Turbine Building - South / Elev. 272', Fire Area / Zone IE/TB-1

PFP-PWR48, Turbine Building, Elev. 300', Fire Area / Zone IE/TB-1

71111.12 - Maintenance Effectiveness

Procedures

CJ3422-2, Dedication Plan for Jaguar Instruments Level Switch, Revision 2 EN-DC-150, Condition Monitoring of Maintenance Rule Structures, Revision 6 J247-0001, Level Ac SL-100, SL-200, SL-300, SL-400, & SL-500 Series Switches, Revision 0 R290-0022, External Float Chamber Level Switch SL-300/SL-700, Revision 0

Issue Reports

04114448

04218704

04223309

Engineering Change

EC 627363, Engineering Evaluation of Degradation to Reactor Building Siding Due to High Winds, Revision 0

Engineering Evaluation

Inspection Number 02-RB-369-003-3, Reactor Building Siding, dated March 29, 2014

71111.15 - Operability Determinations and Functionality Assessments

Procedures

CY-AA-130-201, Radiochemistry Quality Control, Revision 7
TOP-391, Stroking RCIC Turbine Steam Supply Valve 13MOV-131, Revision 1

Issue Reports

04174135 04202421 04213122 04220485

Condition Report

CR-JAF-2017-01329

Work Orders

04732122

80468538

Engineering Change

EC 69633, Suppression Chamber and Drywell Deterioration Inspection ST-B15 Engineering Evaluation, dated February 7, 2007

<u>Miscellaneous</u>

ASME Code Case N-513-2, Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping, Section XI, Division 1

CGIR-NUC2017112-JAF-L-IWE-015, Coating General Inspection Report for RFO-22 Torus Interior Bay P (15), dated January 27, 2017

71111.18 - Plant Modifications

Procedures

MP-039.05, Air Compressor Preventative Maintenance 39AC-2A, 2B, 2C, Revision 15 OP-59A, Battery Room Ventilation, Revision 14

Issue Reports

04200471

04215585

Engineering Changes

EC 16513, Evaluate Temporary Procedure to Maintain Ventilation in the Station Battery and Station Battery Charger Rooms for a Failure of One or More Battery Room Ventilation Components, Revision 0

EC 624512, OP-59A PCTCC and Functionality for Non-Functional Battery Room Exhaust Fans, Revision 0

EC 626680, Installation of Second Discharge Check Valve on Station Air Compressors, Revision 0

71111.19 - Post-Maintenance Testing

Procedures

ISP-75.1, RCIC CST Low Water Level Switch Functional Test/Calibration, Revision 24

OP-19, Reactor Core Isolation Cooling System, Revision 51

OP-39, Breathing, Instrument, and Service Air System, Revision 39

ST-7A, SGT Manual Bypass Operation, Heater Capacity, Filter DP, and Downstream Piping Leak Tests, Revision 20

ST-9BA, EDG 'A' and 'C' Full Load Test and ESW Pump Operability Test, Revision 17

Issue Reports

04218247 04222368 04222377 04229270

Work Orders

04648214 04653402 04846272 04878772-02

4852077

Engineering Change

EC 627542, EDG Turbocharger 93TC-1A, 93TC-1B, 93TC-1C, and 93TC-1D Torque Values for the Exhaust Spacer and Exhaust Manifold to Turbo Expansion Joint, dated February 22, 2019

71111.22 - Surveillance Testing

Issue Reports

04207492

04207498

04207510

Drawing

FM-18B, Flow Diagram Drywell Inerting CAD Purge and Containment Differential Pressurization System 27, Revision 45

71151 – Performance Indicator Verification

Procedure

NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 07

71152 - Problem Identification and Resolution

Procedures

ST-6M, Standby Liquid Control Recirculation, Injection Test (IST, ISI), Revision 9 ST-6M, Standby Liquid Control Recirculation, Injection Test (IST, ISI), Revision 11

Issue Reports

4040402 4052133 4086932 4172631

4172786 4175339

Condition Report

CR-JAF-2014-01893

Drawings

115D6166, Sheet 2, Instrument Rack-Jet Pump MPL No. 25-52, Revision 5 FM-21A, Sheet 1, Flow Diagram Standby Liquid Control System 11, Revision 37 FM-47A, Sheet 1, Flow Diagram Nuclear Boiler Vessel Instruments System 02-3, Revision 52

<u>Miscellaneous</u> Plant Process Computer Data for Point A-405 for November 15, 2018 through February 13, 2019