



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

July 20, 2018

Mr. Thomas D. Ray
Site Vice President
Duke Energy Carolinas, LLC
McGuire Nuclear Station
MG01VP/12700 Hagers Ferry Road
Huntersville, NC 28078

**SUBJECT: MCGUIRE NUCLEAR STATION – NUCLEAR REGULATORY COMMISSION
INTEGRATED INSPECTION REPORT 05000369/2018002 AND
05000370/2018002**

Dear Mr. Ray:

On June 30, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your McGuire Nuclear Station Units 1 and 2. On July 11, 2018, 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.

No NRC-identified or self-revealing findings were identified during this inspection. However, inspectors documented a licensee-identified violation which was determined to be Severity Level IV in this report. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2.a of the Enforcement Policy.

If you contest the violation or significance of the NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement; and the NRC resident inspector at the McGuire Nuclear Station.

T. Ray

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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/

Frank Ehrhardt, Chief
Reactor Projects Branch 1
Division of Reactor Projects

Docket Nos.: 50-369, 50-370
License Nos.: NPF-9, NPF-17

Enclosure:
IR 05000369/2018002 and 05000370/2018002

cc: Distribution via ListServ

SUBJECT: MCGUIRE NUCLEAR STATION – NUCLEAR REGULATORY COMMISSION
 INTEGRATED INSPECTION REPORT 05000369/2018002 AND
 05000370/2018002 July 20, 2018

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

Docket Numbers: 50-369, 50-370

License Numbers: NPF-9, NPF-17

Report Numbers: 05000369/2018002 and 05000370/2018002

Enterprise Identifier: I-2018-002-0037

Licensee: Duke Energy Carolinas, LLC

Facility: McGuire Nuclear Station, Units 1 and 2

Location: Huntersville, NC

Inspection Dates: April 1, 2018 to June 30, 2018

Inspectors: A. Hutto, Senior Resident Inspector
R. Cureton, Resident Inspector
M. Bates, Senior Operations Engineer
J. Bundy, Operations Engineer
S. Downey, Senior Reactor Inspector

Approved By: F. Ehrhardt, Chief
Reactor Projects Branch 1
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring licensee's performance by conducting a quarterly baseline inspection at McGuire Nuclear Station Units 1 and 2 in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information. NRC and self-revealed findings, violations, or additional items are summarized in the table below. Licensee-identified non-cited violations (NCVs) are documented in report section: 60855.1.

No findings were identified.

Additional Tracking Items

Type	Issue number	Title	Report Section	Status
LER	05000369/2018-001-00/01	Valid Actuation of the Unit 1 Reactor Protection System And Auxiliary Feedwater System	71153 – Follow-up of Events and Notices of Enforcement Discretion	Closed

PLANT STATUS

Unit 1 operated at or near 100 percent rated thermal power (RTP) for the entire inspection period.

Unit 2 operated at or near 100 percent RTP for the entire inspection period.

INSPECTION SCOPES

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

Summer Readiness (1 Sample)

The inspectors evaluated summer readiness of offsite and alternate alternating current (AC) power systems.

Seasonal Extreme Weather (1 Sample)

The inspectors evaluated readiness for seasonal extreme weather conditions prior to the onset of extreme hot summer conditions.

71111.04 - Equipment Alignment

Partial Walkdown (3 Samples)

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

- (1) Unit 2 turbine driven auxiliary feedwater pump and 2B motor driven auxiliary feedwater pump while the 2A motor driven auxiliary feedwater pump was out of service (OOS) for planned maintenance on April 24, 2018
- (2) Unit 1A emergency diesel generator (EDG) while the B EDG was OOS for fuel oil tank cleaning and inspections on May 22, 2018
- (3) Unit 2A motor driven auxiliary feedwater pump while the 2B motor driven auxiliary feedwater pump was OOS for planned maintenance on June 7, 2018

Complete Walkdown (1 Sample)

The inspectors evaluated system configurations during a complete walkdown of the Unit 2A train of high head injection system on June 10, 2018.

71111.05AQ - Fire Protection Annual/Quarterly

Quarterly Inspection (5 Samples)

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

- (1) Unit 1 auxiliary building 750' level (fire area 21) on June 20, 2018
- (2) Unit 2 auxiliary feedwater pump room (fire area 3/3A) on June 20, 2018
- (3) standby shutdown facility (SSF) (fire area SSF) on June 20, 2018
- (4) service building cable spreading room (fire area SRV) on June 20, 2018
- (5) Unit 2 auxiliary building 750' level (fire area 21) on June 26, 2018

71111.06 - Flood Protection Measures

Internal Flooding (1 Sample)

The inspectors evaluated internal flooding mitigation protections in the Unit 1 and 2 695 foot elevation on June 7, 2018.

71111.07 - Heat Sink Performance

Heat Sink (Triennial) (7 Samples)

The inspectors evaluated heat exchanger/sink performance on the following components from June 25, 2018, to June 28, 2018:

- (1) component cooling water heat exchanger 1B, Section 02.02b
- (2) component cooling water heat exchanger 2B, Section 02.02b
- (3) safety injection pump bearing oil cooler 1B, Section 02.02b
- (4) safety injection pump bearing oil cooler 2A, Section 02.02b
- (5) residual heat removal pump mechanical seal heat exchanger 1A, Section 02.02c
- (6) residual heat removal pump mechanical seal heat exchanger 2B, Section 02.02c
- (7) standby nuclear service water pond, Section 02.02d, Specifically Sections 02.02d.4, 02.02d.6, and 02.02d.7 were completed.

71111.11 - Licensed Operator Requalification Program and Licensed Operator Performance

Operator Requalification (1 Sample)

The inspectors observed and evaluated operator performance on the simulator during the emergency planning drill on May 16, 2018.

Operator Performance (1 Sample)

The inspectors observed and evaluated a Unit 2 turbine valve movement test on April 20, 2018.

Operator Requalification Program (1 Sample)

The inspectors evaluated the operator requalification program from June 18, 2018, to June 22, 2018.

71111.12 - Maintenance Effectiveness

Routine Maintenance Effectiveness (1 Sample)

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

- (1) 1B EDG voltage oscillations during post maintenance operations (Nuclear Condition Report (NCR) 2206941)

Quality Control (1 Sample)

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

- (1) KTK-2 control power fuse issues following breaker maintenance (NCR 2176186)

71111.13 - Maintenance Risk Assessments and Emergent Work Control (5 Samples)

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

- (1) Unit 2 equipment protection plan for planned maintenance on the 2A spent fuel cooling pump breaker, on April 3, 2018
- (2) Unit 1 equipment protection plan for maintenance on the 1A charging (NV) pump, on May 10, 2018
- (3) Unit 2 equipment protection plan for maintenance on the 2B residual heat removal pump fan on May 14, 2018
- (4) Unit 1 equipment protection plan for emergent maintenance to replace the 1B EDG 8L fuel injector pump, on May 16, 2018
- (5) Unit 1 equipment protection plan for maintenance on the 1A nuclear service water (RN) pump (yellow risk condition), on May 22, 2018

71111.15 - Operability Determinations and Functionality Assessments (6 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) 2B NV pump gas a faint humming/rubbing noise (NCR 2194830), on April 4, 2018
- (2) 1A RN pump inboard slinger ring instability (NCR 2197977), on April 12, 2018

- (3) Specific gravity measurement for 1A diesel calculation wrong (NCR 2202214), on May 1, 2018
- (4) Marking identified on top of control rod guide tube at location H-8 on Unit 2 (NCR 2189388), on May 8, 2018
- (5) Auxiliary feedwater relay (2SSRX2) not mounted firmly on back plate (NCR 2212886), on June 25, 2018
- (6) Increase in standby nuclear service water pond fish population (NCR 02211881), on June 26, 2018

71111.19 - Post Maintenance Testing (6 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) PT/2/A/4204/001 B, "2B ND Pump Performance Test" following planned maintenance on April 3, 2018
- (2) PT/1/A/4350/002 A, "Diesel Generator 1A Operability Test" following planned maintenance on May 1, 2018
- (3) TT/1/A/4150/002, "POST AVR Replacement Testing" following 1B DB AVR replacement on May 18, 2018
- (4) Work order 20220518 task 2, PM-1RNPU0003 – "Functional run" following oil change on the 1A RN pump on May 22, 2018
- (5) PT/1/A/4350/002 A, "Diesel Generator 1A Operability Test" following diesel down day maintenance on May 24, 2018
- (6) PT/0/A/4200/002, "Standby Shutdown Facility Operability Test" following preventive maintenance on the SSF diesel on May 31, 2018

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Routine (3 Samples)

- (1) PT/1/A/4350/002 B, "Diesel Generator 1B Operability Test," on April 10, 2018
- (2) PT/2/A/4971/021, "Reactor Coolant Pump (RCP) Undervoltage/Underfrequency Functional Test," (A & C Pumps) on April 25, 2018
- (3) PT/0/A/4150/002 A, "Core Power Distribution & Incore/NIS Correlation Check" (Unit 1) on May 1, 2018

In-service (2 Samples)

- (1) PT/2/A/4206/001 A, "2A NI Pump Performance Test," on May 29, 2018
- (2) PT/1/A/4252/001 A, "1A CA Pump Performance Test," on June 18, 2018

71114.06 - Drill Evaluation

Emergency Planning Drill (1 Sample)

The inspectors evaluated an emergency planning drill on May 16, 2018. The drill included a steam generator tube rupture followed by a failed main steam line safety valve, faulting the generator. The scenario concluded with indications of fuel failure due to loose parts in the reactor vessel resulting in the failure of all three fission product safety barriers.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below for Units 1 and 2 for the period from January 1, 2017, through December 31, 2017. (6 Samples)

- (1) Safety System Functional Failures
- (2) Emergency AC Power System
- (3) High Pressure Injection System

71152 - Problem Identification and Resolution

Semiannual Trend Review (1 Sample)

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

Annual Follow-up of Selected Issues (1 Sample)

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

- (1) 1B inadequate core cooling monitoring panel operability criteria potentially not met (NCR 02173812)

71153 - Follow-up of Events and Notices of Enforcement Discretion

Licensee Event Reports (1 Sample)

The inspectors evaluated the following licensee event report which can be accessed at <https://lersearch.inl.gov/LERSearchCriteria.aspx>:

- (1) Licensee Event Report (LER) 05000369/2018-001-00/01, "Valid Actuation of the Unit 1 Reactor Protection System And Auxiliary Feedwater System", on June 19, 2018

OTHER ACTIVITIES – TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

60855.1 - Operation of an Independent Spent Fuel Storage Installation

The inspectors evaluated the licensee's independent spent fuel storage installation cask loading activities (cask 45) on May 29 – June 4, 2018.

INSPECTION RESULTS

Licensee Identified Non-Cited Violation	60855.1 - Operation of an Independent Spent Fuel Storage Installation
This violation of very low safety significant was identified by the licensee and has been entered into the licensee corrective action program and is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy.	

Violation: NAC-Magnastor Certificate of Compliance 1031, Amendment 2, Technical Specifications SR 3.1.1.2 requires, in part, that the transportable storage canister (TSC) be backfilled with helium in the range of 0.694-0.802 g/liter prior to transport operations.

Contrary to the above, on June 4, 2018, the licensee transported Magnastor cask 45 to the independent spent fuel storage installation pad with the TSC backfilled to approximately 0.85-0.89 g/liter due to the use of out of tolerance flow meters during backfilling operations.

Significance/Severity Level: The inspectors determined that traditional enforcement is applicable for this NCV as it involved requirements pertaining to ISFSI operations and therefore the reactor oversight process is not applicable. The NCV was determined to be a Severity Level IV violation as it did not involve willfulness, was identified by the licensee, and was determined to be of minimal safety significance as the over fill of helium did not exceed any design parameters of the TSC during the transport operations.

Corrective Action Reference: This issue was entered into the licensee's corrective action program as NCR 2211048, "Potentially Exceeding Magnastor Helium Density Upper Range."

EXIT MEETINGS AND DEBRIEFS

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

The inspectors confirmed that proprietary information was controlled to protect from public disclosure.

- On July 11, 2018, the inspector presented the inspection results to Mr. Thomas Ray and other members of the licensee staff.

DOCUMENTS REVIEWED

71111.01: Adverse Weather Protection

AD-WC-ALL-0230, "Seasonal Readiness"

PT/0/B/4700/039, Warm Weather Equipment Checkout

Action register update summary reports for summer readiness between April – June, 2018

CSD-EG-ALL-2000.1, Nuclear Switchyard Interface Agreement

CSD-EG-ALL-2000.2, Nuclear Switchyard Operating Guidelines

DPC-1381.06-00-0001, Catawba, McGuire & Oconee Degraded Grid Voltage Setpoints for Real Time Contingency

71111.04: Equipment Alignment

MCFD-2592-01.01, "Unit 1, Flow Diagram of Auxiliary Feedwater System"

OP/1/A/6350/002, "Diesel Generator"

OP/2/A/6250/002, "Auxiliary Feedwater System"

MCFD-2554-03.01, "Flow Diagram of Chemical Volume and Control System"

NCR 2186821, "Legacy valve weight discrepancy"

Work Order (WO) 02057584, "2NV-95B change the wiring of the close torque bypass"

WO 20203862, "2NV-129: investigate/repair valve M3R25"

WO 20017498, "2NV-191: clutch is slipping"

WO 20173921, "2NV-263: repair body bonnet leak"

71111.05Q: Fire Protection

MCS-1465.00-00-0008, "Design Basis Specification for Fire Protection"

MCS-1465.00-00-0022, "Appendix R Safe Shutdown Analysis"

MCC-1435.00-00-0059, "NFPA 805 – Appendix R Safe Shutdown Deterministic Analysis"

AD-EG-ALL-1520, "Transient Combustible Control"

CSD-MNS-PFP-AB-0750-001, "Auxiliary Building Elevation 750 Pre-Fire Plan"

FS/1/B/9000/003, Unit 2 CA pump room Fire Strategy #3

MFSD-002, Unit 1 CA pump room

CSD-MNS-PFP-PA-003, "Protected Area Northwest Pre-Fire Plan"

CSD-MNS-PFP-SRV-0750-001, "Service Building Elevation 750 Pre-Fire Plan"

Section 1R06: Flood Protection Measures

MCC-1206.47-69-100, Auxiliary Building Flooding Analysis

MCS-1154.00-0004, Design Basis Specification for Auxiliary Building Structures

AP/0/A/5500/44, Plant Flooding

71111.07: Heat Sink Performance

Procedures

AD-EG-ALL-1312, Raw Water Program Implementation, Rev. 0

AD-EG-ALL-1613, Buried Piping Integrity Program Implementation, Rev. 3

AP/1/A/550/20, Loss of RN, Rev. 37

CP/0/A/8600/049, Sampling Auxiliary Building Closed Cooling Systems, Rev. 011

MCM 3.6, Closed Cooling Systems Analytical Requirements and Corrective Actions, Rev. 038

MCS-1574.RN-00-0001, Design Basis Specification for the RN System, Rev. 56

MP/0/A/7700/013, Component Cooling System (KC) Maintenance, Rev. 019

MP/0/B/7150/118, NI Pump American Standard Oil Cooler Maintenance, Rev. 020

MP/0/A/7650/087, Recording Tube Plugs in Safety Related Heat Exchangers, Rev. 7

PD-EG-ALL-1613, Buried Piping Integrity Program, Rev. 0

PT/0/B/4700/063, Periodic Inspection of Service Water Piping for Corrosion-Induced Thinning, Rev. 006

Calculations

MCC-1150.01-00-0008, SNSWP Thermal Analysis, Rev. 0
MCC-1223.24-00-0075, RN/KC Heat Exchanger Tube Plugging Analysis, Rev. 7
MCC-1223.24-00-0078, RN/KC Heat Exchanger Operability Evaluation, Rev. 2
MCC-1223.24-00-0081, RN/NI Pump Oil Cooler Tube Plugging Analysis, Rev. 0
MCC-1223.24-00-0096, RN System Flow Balance Acceptance Criteria Calculation, Rev. 17
MCC-1223.11-00-0039, RHR System Capability Basis – UFSAR Support, Rev. 1

Drawings

MC-1027-01.00, Standby Nuclear Service Water Pipes Intake and Discharge Layout and Details, Rev. 16
MC-1220-22, Fill Concrete & Standby Nuclear Service Water Pipes Layout & Details
MCFD-1574-01.00, Flow Diagram of Nuclear Service Water System – RN, Rev. 32
MCFD-1574-01.01, Flow Diagram of Nuclear Service Water System – RN, Rev. 37
MCFD-1574-02.00, Flow Diagram of Nuclear Service Water System – RN, Rev. 36
MCFD-1574-03.00, Flow Diagram of Nuclear Service Water System – RN, Rev. 41

Miscellaneous

1EOC25 Outage, Eddy Current Inspection Report, Component Cooling Water Heat Exchanger 1B, 09/27/2017
2017Q4, System Health Report, Component Cooling System
2017Q4, System Health Report, Nuclear Service Water System
2EOC23 Outage, Eddy Current Inspection Report, Component Cooling Water Heat Exchanger 2B, 09/28/2015
Balance of Plant Eddy Current Inspection Report, Safety Injection Pump Bearing Oil Cooler 1A, 08/26/2010
MCM-1201.05-0280.001, Safety Injection Pump I/B, Revision 038
NCRs: 01947290, 01990527, 02156405, 02169010, 02132243, 02140671, 02185880
Service Water Flow Balance Test Results
Work Orders: 02160876, 02183019, 20008679, 20022581, 20035887, 20055420, 20084949, 20085120, 20099017, 20128504, 20128583, 20132970, 20139653, 20180811, 20217054, 20230257

71111.11: Licensed Operator Requalification Program and Licensed Operator

Performance

AD-OP-ALL-1000, “Conduct of Operations”
NSD 509, “Site Standards in Support of Operational Focus”
OMP 4.3, “Use of Emergency and Abnormal Procedures and FLEX Support Guidelines”
SOMP 01-07, “Control Room Oversight”
PT/2/A/4250/004 A, “Turbine Valve Movement Test”

Simulator Exam

OP-MC-ASE-18, Rev. 25
OP-MC-ASE-19, Rev. 22
OP-MC-ASE-10, Rev. 20
OP-MC-ASE-32, Rev. 11

JPM

OP-MC-JPM-SS-VI:164A, Rev. 7
OP-MC-PS-NV:312A, Rev. 2
OP-MC-JPM-IC-RTB:016, Rev. 10
OP-MC-JPM-IC-ENB:002, Rev. 4
OP-MC-ADM-EAL-340, Rev. 00
OP-MC-CA-SA:217, Rev. 6
JPM -STM-IDE:332, Rev. 6
OP-MC-PS-NC:319A, Rev. 1
OP-MC-ADMIN-FRI:443, Rev. 1
OP-MC-STM-SG:453A, Rev. 00

Written

2018 C Shift CB Exam, June 13, 2018
2018 C Shift RO Exam, May 15, 2018
2018 C Shift SRO Exam, May 15, 2018

Simulator Performance

009_09, Steam Break Inside Containment, May 22, 2018
010_09, Pressurizer PORV Failure, May 31, 2018
011A_09, Load rejection, May 23, 2018
SDR 1652, Simulator comparison to U1 Reactor Trip, February 16, 2018
SDR 1573, U2 failure of DCS for B CF control, July 19, 2018

PI&R

NCR 2158879
NCR 2157995
NCR 2157808
NCR 2157838
NCR 2210050
NCR 2059409

71111.12: Maintenance Effectiveness

AD-EG-ALL-1204, "Single Point Vulnerability Identification, Elimination and Mitigation"
AD-EG-ALL-1206, "Equipment Reliability Classification"
AD-EG-ALL-1209, "System, Component, and Program Health Reports and Notebooks"
AD-EG-ALL-1210, "Maintenance Rule Program"
AD-EG-ALL-1211, "System Performance Monitoring and Trending"
Duke Equipment Reliability Maintenance Rule Database
NCR 2157373, "evaluate recent control power blown fuse issues"
NCR 1426964, "engineering design criteria DC-2.04"
EC 411602, "engineering evaluation of MPR analysis of KTK-2 fuses on D/G backed loads
MPR Report 1079-0057-RPT-001, "Assessment of Fuse Opening Upon Energization of Control
Power Transformers"
AD-PI-ALL-0104, "Prompt Investigation Response Team" Attachment 4 (PIRT Temp) for NCR
2176186

71111.13: Maintenance Risk Assessments and Emergent Work Control

NSD-213, "Risk Management Process"
NSD-415, "Operational Risk Management (Modes 1–3) per 10 CFR 50.65(a)(4)"
SOMP 02-02, "Operations Roles in the Risk Management Process"

OMP 13-7, "Operational Control of Protected Equipment"
AD-OP-ALL-0201, "Protected Equipment"

71111.15: Operability Determinations and Functionality Assessments

AD-OP-ALL-0102, "Operability Decision Making"
AD-OP-ALL-0105, "Operability Determinations and Functionality Assessment"

71111.19: Post-Maintenance Testing

NSD-408, "Testing"
AD-EG-ALL-1155, "Post Modification Testing"
PT/2/A/4204/001 B, "2B ND Pump Performance Test"
PT/1/A/4350/002 A, "Diesel Generator 1A Operability Test"
TT/1/A/4150/002, "POST AVR Replacement Testing"
Work order 20220518 task 2, PM-1RNPU0003 – "Functional run"
PT/0/A/4200/002, "Standby Shutdown Facility Operability Test,"

71111.22: Surveillance Testing

AD-EG-ALL-1202, "Preventive Maintenance and Surveillance Testing Administration"
AD-WC-ALL-0250, "Work Implementation and Completion"
AD-EG-ALL-1720, "In-service Testing (IST) Program Implementation"

71114.06: Drill Evaluation

RP/0/A/5700/000, "Classification of Emergency"
RP/0/A/5700/002, "Alert"
RP/0/A/5700/003, "Site Area Emergency"
RP/0/A/5700/004, "General Emergency"
RP/0/A/5800/010, "NRC Immediate Notification Requirements"
RP/0/B/5700/029, "Notification to Offsite Agencies from the Control Room"

71151: Performance Indicator (PI) Verification

AD-LS-ALL-0004, "NRC Performance Indicators and Monthly Operating Report"
AD-PI-ALL-0100, "Corrective Action Program"

71152: Problem Identification and Resolution

AD-PI-ALL-0100, "Corrective Action Program"
AD-PI-ALL-0102, "Apparent Cause Evaluation"
AD-PI-ALL-0103, "Quick Cause Evaluation"
AD-PI-ALL-0104, "Prompt Investigation Response Team"
AD-PI-ALL-0105, "Effectiveness Reviews"
AD-LS-ALL-0006, "Notification/Reportability Evaluation"

71153: Follow-up of Events and Notices of Enforcement Discretion

LER 05000370/2017-001-00, -01, Technical Specification (TS) Required Shutdown Due to
Reactor Coolant System (RCS) Leakage
Root Cause Evaluation Report NCR 2102868, "2D Safety Injection Pressure Boundary Leak"
Root Cause Evaluation Report PIP M-14-3153, "2EOC22 NC System Thermal Fatigue Crack"
Duke Energy Metallurgy Services Report, File 5681 dated May 15, 2017, "MNS 2D Cold Leg
Injection Line Removed 2EOC24"

60855.1: Operation of an Independent Spent Fuel Storage Installation

PT/1/A/4600/003B, "Daily Surveillance Items"

PT/0/A/4150/034, "Fuel Assembly – Component Verification"
OP/0/A/6550/029, "Magnastor Fuel Assembly Loading/Unloading Procedure"
NCR 2213177, "clarification of seam weld geometry for 0FCTKN045"
NCR 2211048, "Potentially Exceeding Magnastor Helium Density Upper Range"