



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION IV
1600 E. LAMAR BLVD
ARLINGTON, TX 76011-4511

October 26, 2017

Mr. Michael R. Chisum
Site Vice President
Entergy Operations, Inc.
17265 River Road
Killona, LA 70057-0751

SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 – NRC INTEGRATED
INSPECTION REPORT 05000382/2017003

Dear Mr. Chisum:

On September 30, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Waterford Steam Electric Station, Unit 3. On October 12, 2017, 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.

The NRC inspectors did not identify any finding or violation of more than minor significance.

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/

Geoffrey Miller, Branch Chief
Projects Branch D
Division of Reactor Projects

Docket No. 50-382
License No. NPF-38

Enclosure:
Inspection Report 05000382/2017003
w/ Attachment: Supplemental Information

WATERFORD STEAM ELECTRIC STATION, UNIT 3 – NRC INTEGRATED INSPECTION
 REPORT 05000382/2017003 – October 26, 2017

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket: 05000382

License: NPF-38

Report: 05000382/2017003

Licensee: Entergy Operations, Inc.

Facility: Waterford Steam Electric Station, Unit 3

Location: 17265 River Road
Killona, LA 70057

Dates: July 1 through September 30, 2017

Inspectors: F. Ramírez, Senior Resident Inspector
J. Dixon, Senior Project Engineer
P. Elkmann, Senior Emergency Preparedness Inspector
C. Osterholtz, Senior Operations Engineer
J. Kirkland, Senior Operations Engineer
C. Speer, Resident Inspector

Approved By: Geoffrey Miller
Chief, Projects Branch D
Division of Reactor Projects

SUMMARY

IR 05000382/2017003; 07/01/2017 – 09/30/2017; Waterford Steam Electric Station, Unit 3; Integrated Inspection Report.

The inspection activities described in this report were performed between July 1 and September 30, 2017, by the resident inspectors at Waterford Steam Electric Station, Unit 3, and inspectors from the NRC's Region IV office. The significance of inspection findings is indicated by their color (i.e., Green, greater than Green, White, Yellow, or Red), determined using Inspection Manual Chapter 0609, "Significance Determination Process," dated April 29, 2015. Their cross-cutting aspects are determined using Inspection Manual Chapter 0310, "Aspects within the Cross-Cutting Areas," dated December 4, 2014. Violations of NRC requirements are dispositioned in accordance with the NRC Enforcement Policy. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," dated July 2016.

No findings were identified.

PLANT STATUS

The plant began the inspection period at 100 percent power. On July 17, 2017, the turbine was manually tripped due to an electrical fault associated with main transformer B, and the reactor tripped automatically when the fast bus transfer circuit failed, removing offsite electrical power from the plant. The plant was restarted on July 29, 2017, and achieved full power on August 2, 2017. The plant remained at full power for the remainder of the inspection period.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.1 Summer Readiness for Offsite and Alternate AC Power Systems

a. Inspection Scope

On August 23, 2017, the inspectors completed an inspection of the station's off-site and alternate-ac power systems. The inspectors inspected the material condition of these systems, including transformers and other switchyard equipment, to verify that plant features and procedures were appropriate for operation and continued availability of off-site and alternate-ac power systems. The inspectors reviewed outstanding work orders and open condition reports for these systems. The inspectors walked down the switchyard and transformer yard to observe the material condition of equipment providing off-site power sources. The inspectors assessed corrective actions for identified degraded conditions and verified that the licensee had considered the degraded conditions in its risk evaluations and had established appropriate compensatory measures.

The inspectors verified that the licensee's procedures included appropriate measures to monitor and maintain availability and reliability of the off-site and alternate-ac power systems.

These activities constituted one sample of summer readiness of off-site and alternate-ac power systems, as defined in Inspection Procedure 71111.01.

b. Findings

No findings were identified.

.2 Readiness for Impending Adverse Weather Conditions

a. Inspection Scope

On August 30, 2017, the inspectors completed an inspection of the station's readiness for impending adverse weather conditions. The site was preparing for a hurricane that had the potential to impact area surrounding the plant. The inspectors reviewed plant design features, the licensee's procedures to respond to potential hurricane conditions, and the licensee's implementation of these procedures. The inspectors evaluated

operator staffing and accessibility of controls and indications for those systems required to control the plant.

These activities constituted one sample of readiness for impending adverse weather conditions, as defined in Inspection Procedure 71111.01.

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

Partial Walk-Down

a. Inspection Scope

The inspectors performed partial system walk-downs of the following risk-significant systems:

- July 25, 2017, auxiliary feedwater due to high risk significance during the forced outage plant lineup
- August 10, 2017, high pressure safety injection train B while train A was inoperable for scheduled testing
- September 28, 2017, controlled ventilation area system train B with train A out of service for maintenance

The inspectors reviewed the licensee's procedures and system design information to determine the correct lineup for the systems. They visually verified that critical portions of the systems or trains were correctly aligned for the existing plant configuration.

These activities constituted three partial system walk-down samples, as defined in Inspection Procedure 71111.04.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

.1 Quarterly Inspection

a. Inspection Scope

The inspectors evaluated the licensee's fire protection program for operational status and material condition. The inspectors focused their inspection on four plant areas important to safety:

- July 26, 2017, +40 feet turbine generator building east, Fire Area NS-TB-003
- July 26, 2017, +40 feet turbine generator building west, Fire Area NS-TB-004
- August 21, 2017, main steam isolation valve passage, Fire Area RAB 2-002

- August 21, 2017, electrical penetration area B, Fire Area RAB 5-001

For each area, the inspectors evaluated the fire plan against defined hazards and defense-in-depth features in the licensee's fire protection program. The inspectors evaluated control of transient combustibles and ignition sources, fire detection and suppression systems, manual firefighting equipment and capability, passive fire protection features, and compensatory measures for degraded conditions.

These activities constituted four quarterly inspection samples, as defined in Inspection Procedure 71111.05.

b. Findings

No findings were identified.

.2 Annual Inspection

a. Inspection Scope

On August 29, 2017, the inspectors completed their annual evaluation of the licensee's fire brigade performance. This evaluation included observation of an unannounced fire drill for the B emergency diesel generator room on August 27, 2017.

During this drill, the inspectors evaluated the capability of the fire brigade members, the leadership ability of the brigade leader, the brigade's use of turnout gear and fire-fighting equipment, and the effectiveness of the fire brigade's team operation. The inspectors reviewed the post drill evaluation documentation and also determined whether the licensee's fire brigade met NRC requirements for training, dedicated size and membership, and equipment.

These activities constituted one annual inspection sample, as defined in Inspection Procedure 71111.05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program and Licensed Operator Performance (71111.11)

.1 Review of Licensed Operator Requalification

a. Inspection Scope

On August 22, 2017, the inspectors observed an evaluated simulator scenario performed by an operating crew. The inspectors assessed the performance of the operators and the evaluators' critique of their performance.

These activities constituted completion of one quarterly licensed operator requalification program sample, as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

.2 Review of Licensed Operator Performance

a. Inspection Scope

The inspectors observed the performance of on-shift licensed operators in the plant's main control room. The inspectors observed the operators' performance of the following activities:

- July 7, 2017, period of high risk due to moderator temperature coefficient testing, including the pre-job brief
- July 17, 2017, period of high risk following a reactor trip and loss of offsite power

In addition, the inspectors assessed the operators' adherence to plant procedures, including the conduct of operations procedure and other operations department policies.

These activities constituted completion of one quarterly licensed operator performance sample, as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

.3 Annual Review of Requalification Examination Results

a. Inspection Scope

Every year, either an annual review or a biennial review is performed on the licensed operator requalification program. For this year, a biennial review was completed and the annual review was not performed. See the biennial review section for details on the licensed operator requalification program.

b. Findings

No findings were identified.

.4 Biennial Review of Requalification Program

a. Inspection Scope

The licensed operator requalification program involves two training cycles that are conducted over a 2-year period. In the first cycle, the annual cycle, the operators are administered an operating test consisting of job performance measures and simulator scenarios. In the second part of the training cycle, the biennial cycle, operators are administered an operating test and a comprehensive written examination.

To assess the performance effectiveness of the licensed operator requalification program, the inspectors reviewed both the written examination and operating test

quality, and observed licensee administration of an annual requalification test while on site. The operating tests observed included eight job performance measures and one scenario that was used in the current biennial requalification cycle. These observations allowed the inspectors to assess the licensee's effectiveness in conducting the operating test to ensure operator mastery of the training program content and to determine if feedback of performance analyses into the requalification training program was being accomplished.

On September 13, 2017, the licensee informed the inspectors of the completed cycle results for Unit 3 for both the written examinations and the operating tests:

- 10 of 10 crews passed the simulator portion of the operating test
- 55 of 55 licensed operators passed the simulator portion of the operating test
- 55 of 55 licensed operators passed the job performance measure portion of the operating test
- 52 of 55 licensed operators passed the written examination

The individuals that failed the written examinations were remediated, retested, and passed their retake examinations.

The inspectors observed examination security measures in place during administration of the exams (including controls and content overlap), and reviewed any remedial training and re-examinations, if necessary. The inspectors also reviewed medical records of six licensed operators for conformance to license conditions and the licensee's system for tracking qualifications and records of license reactivation for three operators.

The inspectors reviewed simulator performance for fidelity with the actual plant and the overall simulator program of maintenance, testing, and discrepancy correction.

These activities constituted completion of one inspection sample of the biennial licensed operator requalification program, as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

Routine Maintenance Effectiveness

a. Inspection Scope

The inspectors reviewed two instances of degraded performance or condition of safety-significant structures, systems, and components (SSCs):

- August 31, 2017, emergency chillers
- September 22, 2017, 480 Vac station service distribution

The inspectors reviewed the extent of condition of possible common cause SSC failures and evaluated the adequacy of the licensee's corrective actions. The inspectors reviewed the licensee's work practices to evaluate whether these may have played a role in the degradation of the SSCs. The inspectors assessed the licensee's characterization of the degradation in accordance with 10 CFR 50.65 (the Maintenance Rule), and verified that the licensee was appropriately tracking degraded performance and conditions in accordance with the Maintenance Rule.

These activities constituted completion of two maintenance effectiveness samples, as defined in Inspection Procedure 71111.12.

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

On July 19, 2017, the inspectors reviewed a risk assessment and the risk management actions taken by the licensee related to maintenance on the 480 Vac safety-related undervoltage relays.

The inspectors verified that this risk assessment was performed timely and in accordance with the requirements of 10 CFR 50.65 (the Maintenance Rule) and plant procedures. The inspectors reviewed the accuracy and completeness of the licensee's risk assessment and verified that the licensee implemented appropriate risk management actions based on the results of the assessment.

The inspectors also observed portions of three emergent work activities that had the potential to cause an initiating event or to affect the functional capability of mitigating systems:

- July 14, 2017, emergent work related to the failure of the 22B nonsafety-related electrical bus
- July 19, 2017, emergent work related to the failure of the fast bus transfer circuit
- September 1, 2017, emergent work for the failure of the train A safety injection sump header outlet isolation valve

The inspectors verified that the licensee appropriately developed and followed a work plan for these activities. The inspectors verified that the licensee took precautions to minimize the impact of the work activities on unaffected SSCs.

These activities constituted completion of four maintenance risk assessments and emergent work control inspection samples, as defined in Inspection Procedure 71111.13.

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15)

a. Inspection Scope

The inspectors reviewed four operability determinations that the licensee performed for degraded or nonconforming SSCs:

- July 17, 2017, operability determination of the 2A reactor coolant pump
- July 18, 2017, operability determination on emergency feedwater flow control valves
- August 14, 2017, operability determination of static uninterruptible power supplies MA and MD
- August 24, 2017, operability determination on atmospheric dump valve 2

The inspectors reviewed the timeliness and technical adequacy of the licensee's evaluations. Where the licensee determined the degraded SSC to be operable, the inspectors verified that the licensee's compensatory measures were appropriate to provide reasonable assurance of operability. The inspectors verified that the licensee had considered the effect of other degraded conditions on the operability of the degraded SSC.

On August 9, 2017, the inspectors reviewed operator actions taken or planned to compensate for degraded or nonconforming conditions. The inspectors verified that the licensee effectively managed these operator workarounds to prevent adverse effects on the function of mitigating systems and to minimize their impact on the operators' ability to implement abnormal and emergency operating procedures.

These activities constituted completion of five operability review samples, as defined in Inspection Procedure 71111.15.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed four post-maintenance testing activities that affected risk-significant SSCs:

- July 24, 2017, fast bus transfer timing relay testing following corrective maintenance
- July 27, 2017, fast bus transfer circuit testing following corrective maintenance
- August 7, 2017, charging pump AB following breaker replacement

- September 21, 2017, emergency feedwater pump AB steam admission valve following valve motor replacement

The inspectors reviewed licensing- and design-basis documents for the SSCs and the maintenance and post-maintenance test procedures. The inspectors observed the performance of the post-maintenance tests to verify that the licensee performed the tests in accordance with approved procedures, satisfied the established acceptance criteria, and restored the operability of the affected SSCs.

These activities constituted completion of four post-maintenance testing inspection samples, as defined in Inspection Procedure 71111.19.

b. Findings

No findings were identified.

1R20 Refueling and Other Outage Activities (71111.20)

a. Inspection Scope

During the station's forced outage that concluded on July 29, 2017, the inspectors evaluated the licensee's outage activities. The inspectors verified that the licensee considered risk in developing and implementing the outage plan, appropriately managed personnel fatigue, and developed mitigation strategies for losses of key safety functions. This verification included the following:

- Monitoring of shut-down and cool-down activities
- Verification that the licensee maintained defense-in-depth during outage activities
- Monitoring of maintenance and repair activities
- Monitoring of heat-up and startup activities

These activities constituted completion of one outage activities sample, as defined in Inspection Procedure 71111.20.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed two risk-significant surveillance tests and reviewed test results to verify that these tests adequately demonstrated that the SSCs were capable of performing their safety functions:

Other surveillance tests:

- September 6, 2017, emergency diesel generator A

- September 11, 2017, engineered safety features actuation system subgroup relay test for reactor auxiliary building ventilation system

The inspectors verified that these tests met technical specification requirements, that the licensee performed the tests in accordance with their procedures, and that the results of the test satisfied appropriate acceptance criteria. The inspectors verified that the licensee restored the operability of the affected SSCs following testing.

These activities constituted completion of two surveillance testing inspection samples, as defined in Inspection Procedure 71111.22.

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspectors performed an in-office review of the Waterford Steam Electric Station, Unit 3, Emergency Plan, Revision 48, and the Waterford Steam Electric Station, Unit 3, On-Shift Staffing Analysis, Revision 1, both dated April 4, 2017. These revisions:

- Reduced the number of remote shutdown operators from two to one, in accordance with Waterford Steam Electric Station, Unit 3, License Amendment 248, dated June 27, 2016;
- Implemented the Entergy fleet post-event recovery procedures and deleted site Procedure EP-002-170, "Recovery";
- Added the positions of onsite recovery manager and offsite recovery manager to the Recovery organization
- Revised the reporting responsibilities and organization of positions in the Recovery organization
- Made minor title and editorial corrections

The revisions were compared to their previous revisions, to the criteria of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1, and to the standards in 10 CFR 50.47(b) to determine if the revisions adequately implemented the requirements of 10 CFR 50.54(q)(3) and 50.54(q)(4). The inspectors verified that the revisions did not decrease the effectiveness of the emergency plan. This review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, these revisions are subject to future inspection.

The inspectors also toured the licensee's Alternate Emergency Operations Facility located in Metairie, Louisiana, and the Joint Information Center located in Baton Rouge, Louisiana, and compared the facilities with the facility descriptions in the Waterford Steam Electric Station, Unit 3, Emergency Plan, Revisions 47 and 48.

These activities constituted completion of three emergency action level and emergency plan change samples, as defined in Inspection Procedure 71114.04.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06)

Training Evolution Observation

a. Inspection Scope

On September 28, 2017, the inspectors observed simulator-based licensed operator requalification training that included implementation of the licensee's emergency plan. The inspectors verified that the licensee's emergency classifications, off-site notifications, and protective action recommendations were appropriate and timely. The inspectors verified that any emergency preparedness weaknesses were appropriately identified by the evaluators and entered into the corrective action program for resolution.

These activities constituted completion of one training observation sample, as defined in Inspection Procedure 71114.06.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Security

4OA1 Performance Indicator Verification (71151)

.1 Mitigating Systems Performance Index: Heat Removal Systems (MS08)

a. Inspection Scope

The inspectors reviewed the licensee's mitigating system performance index data for the period of July 1, 2016, through June 30, 2017, to verify the accuracy and completeness of the reported data. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the mitigating system performance index for heat removal systems, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.2 Mitigating Systems Performance Index: Residual Heat Removal Systems (MS09)

a. Inspection Scope

The inspectors reviewed the licensee's mitigating system performance index data for the period of July 1, 2016, through June 30, 2017, to verify the accuracy and completeness of the reported data. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the mitigating system performance index for residual heat removal systems, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.3 Mitigating Systems Performance Index: Cooling Water Support Systems (MS10)

a. Inspection Scope

The inspectors reviewed the licensee's mitigating system performance index data for the period of July 1, 2016, through June 30, 2017, to verify the accuracy and completeness of the reported data. The inspectors used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the reported data.

These activities constituted verification of the mitigating system performance index for cooling water support systems, as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

40A2 Problem Identification and Resolution (71152)

Routine Review

a. Inspection Scope

Throughout the inspection period, the inspectors performed daily reviews of items entered into the licensee's corrective action program and periodically attended the licensee's condition report screening meetings. The inspectors verified that licensee personnel were identifying problems at an appropriate threshold and entering these problems into the corrective action program for resolution. The inspectors verified that the licensee developed and implemented corrective actions commensurate with the significance of the problems identified. The inspectors also reviewed the licensee's

problem identification and resolution activities during the performance of the other inspection activities documented in this report.

b. Findings

No findings were identified.

40A3 Follow-up of Events and Notices of Enforcement Discretion (71153)

Notice of Unusual Event due to the Loss of Offsite Power to Both Safety Busses for Greater than 15 Minutes

a. Inspection Scope

On July 17, 2017, Waterford Steam Electric Station, Unit 3, control room operators manually tripped the main turbine due to reports of an electrical fault on the isophase bus duct associated with main transformer B. Following the turbine trip, the fast bus transfer to maintain offsite power failed resulting in a loss of offsite power and an automatic reactor trip. The emergency diesel generators started to power the safety-related loads as designed. Due to the failure of the fast bus transfer, the licensee made an unusual event declaration to the NRC headquarters operation center.

The inspectors reviewed the licensee's response to the event including the application of standard post trip actions, the licensee's post-trip review report and causal evaluation process. During the plant shutdown, the inspectors monitored the licensee's corrective actions including troubleshooting and testing of the fast bus transfer circuit. In addition, the inspectors reviewed the licensee's controls over activities that could affect reactivity and observed a portion of plant start-up and power ascension activities.

The NRC conducted a special inspection in accordance with Inspection Procedure 93812, "Special Inspection," dated November 15, 2011, to better understand the facts and circumstances surrounding the July 17, 2017, turbine trip and the failure of the fast bus transfer circuit. The results of the special inspection will be documented in NRC Inspection Report 05000382/2017011.

b. Findings

The findings identified by the special inspection team as a result of this event will be documented in NRC Inspection Report 05000382/2017011.

These activities constituted completion of one event follow-up sample, as defined in Inspection Procedure 71153.

40A6 Meetings, Including Exit

Exit Meeting Summary

On July 20, 2017, the emergency preparedness inspector presented the inspection results of the in-office and onsite inspection of changes to the licensee's emergency plan to Mr. J. Signorelli, Manager, Emergency Preparedness, and other members of the licensee staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspectors had been returned or destroyed.

On July 27, 2017, the operator licensing inspectors briefed Mr. D. Constance, Operations Training Superintendent, and other members of the licensee's staff, of the results of portions of the licensed operator requalification program inspection. On September 13, 2017, the inspectors performed a telephonic exit briefing of the requalification program inspection with Mr. D. Constance, in which the final examination results were discussed. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On October 12, 2017, the resident inspectors presented the inspection results to Mr. M. Chisum, Site Vice President, and other members of the licensee staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspectors had been returned or destroyed.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

J. Baxter, Exam Lead
D. Brenton, General Manager, Plant Operations
M. Chisum, Site Vice President
D. Constance, Operations Training Superintendent
J. Jarrel, Regulatory Assurance Manager
B. Lindsey, Operations Manager
D. McGriff, Site Nurse
S. Meiklejohn, Senior Licensing Specialist
J. Mendoza, Exam Developer
J. Signorelli, Manager, Emergency Preparedness
R. Simpson, Training Manager
L. Unger, Access Authorization Supervisor
M. Zamber, Licensing Specialist

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
PL-159	Summer Reliability Plan	0

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-FAP-EP-010	Severe Weather Response	6
EN-FAP-EP-012	Severe Weather Recovery	2
OP-006-001	Plant Distribution (7KV, 4KV, and SSD)	326
OP-901-314	Degraded Grid Conditions	3
OP-901-521	Severe Weather and Flooding	324

Condition Reports (CRs)

CR-WF3-2017-03476 CR-WF3-2017-03528 CR-WF3-2017-03529 CR-WF3-2017-03551

Section 1R04: Equipment Alignment

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Date</u>
G-167	Flow Diagram – Safety Injection System Sh. 3	March 10, 2010
G-167	Flow Diagram – Safety Injection System Sh. 1	November 27, 2015

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OP-002-010	Reactor Auxiliary Building HVAC and Containment Purge	310
OP-003-035	Auxiliary Feedwater	306
OP-009-008	Safety Injection System	40

Section 1R05: Fire Protection

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
NS-TB-003	Waterford S.E.S Pre-fire Strategy Turbine Building Mezzinene +40 East	1
NS-TB-004	Waterford S.E.S Pre-fire Strategy Turbine Building Mezzinene +40 West	1
RAB 2-002	Waterford S.E.S Pre-fire Strategy Elev. +46.00 RAB Main Steam Isolation Valve Passage	6
RAB 5-001	Waterford S.E.S Pre-fire Strategy Elev. +35.00 RAB Electrical Penetration Area “B”	9

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-TW-125	Fire Bridgade Drills	4
FP-001-019	Fire Brigade Equipment	309
FP-001-020	Fire Emergency / Fire Report	312

Section 1R11: Licensed Operator Requalification Program and Licensed Operator Performance

Miscellaneous Documents

<u>Title</u>	<u>Revision/Date</u>
Week 1 RO Exam	July 2017
Week 1 SRO Exam	July 2017
Week 2 RO Exam	July 2017
Week 2 SRO Exam	July 2017
Week 3 RO Exam	August 2017
Week 3 SRO Exam	August 2017
Week 4 RO Exam	August 2017
Week 4 SRO Exam	August 2017
Week 5 RO Exam	August 2017
Week 5 SRO Exam	August 2017
Checklist for Upgrading from Inactive to Active Status (3 operators)	306
Job Performance Measures from Requalification Weeks 1, 2, 3, 4, 5	July 2017
Operations Training Manual	June 2017
Simulator Difference List	July 2017
Simulator Discrepancy Report Summary	July 2017
Simulator Scenarios from Requalification Weeks 1, 2	July 2017
2017 Operator Requalification Sample Plan	July 2017

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-OP-200	Plant Transient Response Rules	3
EN-TQ-114	Licensed Operator Requalification Training Program Description	10
EN-TQ-202	Simulator Configuration Control	9
EN-TQ-210	Conduct of Simulator Training	9
EN-TQ-217	Examination Security	5
EP-001-001	Recognition & Classification of Emergency Conditions	32
OP-901-110	Pressurizer Level Control Malfunction	9
OP-901-112	Charging or Letdown Malfunction	6

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OP-901-212	Rapid Plant Power Reduction	8
OP-901-220	Loss of Condenser Vacuum	302
OP-902-000	Standard Post Trip Actions	16
OP-902-003	Loss of Offsite Power/Loss of Forced Circulation Recovery	10
OP-902-009	Standard Appendicies	317
TM-OP-100-03	Simulator Training	12
WSXM-LOR-074EXAM	2017 Cycle 4 Annual Simulator Exam Week 5	E-201/0

Condition Reports (CRs)

CR-WF3-2016-00167	CR-WF3-2017-00084	CR-WF3-2017-00571	CR-WF3-2017-02349
CR-WF3-2017-02403	CR-WF3-2017-02425	CR-WF3-2017-03107	CR-WF3-2017-04294
CR-WF3-2017-04384	CR-WF3-2017-05108	CR-WF3-2017-05248	CR-WF3-2017-05405
CR-WF3-2017-05406			

Section 1R12: Maintenance Effectiveness

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
	Maintenance Rule Basis Document for SSD 480V Station Service Distribution	
	Preventive Maintenance Basis Template, EN – Switchgear – Low Voltage	5
TD-G080.0145	Vendor Manual, General Electric Low Voltage Switchgears, Various Instructions	0

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-DC-205	Maintenance Rule Monitoring	6
ME-004-081	Ventilated, Dry-Type Station Service Transformer	301
ME-004-141	Low Voltage Switchgear	302
ME-004-151	480-VAC Motor Control Center (MCC)	305, 306, 307

Condition Reports (CRs)

CR-WF3-2015-05730	CR-WF3-2015-07678	CR-WF3-2015-07930	CR-WF3-2015-07977
CR-WF3-2015-07994	CR-WF3-2015-08713	CR-WF3-2015-09151	CR-WF3-2015-09506
CR-WF3-2016-00547	CR-WF3-2016-02402	CR-WF3-2016-03003	CR-WF3-2016-03328
CR-WF3-2016-04037	CR-WF3-2016-04038	CR-WF3-2016-05091	CR-WF3-2016-06558
CR-WF3-2017-00234	CR-WF3-2017-02179	CR-WF3-2017-02347	CR-WF3-2017-03043
CR-WF3-2017-04325	CR-WF3-2017-04941	CR-WF3-2017-05340	CR-WF3-2017-05761
CR-WF3-2017-05763	CR-WF3-2017-06236	CR-WF3-2017-06558	CR-WF3-2017-07014
CR-WF3-2017-07016	CR-WF3-2017-07649	CR-WF3-2017-07650	CR-WF3-2017-07677

Work Orders (WOs)

00120920	00472845	52680308
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Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
ECT-73256	Fast Dead Bus Transfer Test	0
EN-WM-104	On Line Risk Assessment	15
OP-500-003	Control Room Cabinet C	22

Condition Reports (CRs)

CR-WF3-2017-05761	CR-WF3-2017-05763	CR-WF3-2017-05842
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Work Orders (WOs)

00480584	52671713
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Section 1R15: Operability Determinations and Functionality Assessments

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	List of Operator Workarounds and Burdens as of July 2017	August 15, 2017
EN-FAP-OP-006	Operator Aggregate Impact Index Performance Indicator	2
EN-LI-100	Process Applicability Determination for ID EUPS MA and ID EUPS MD	0

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
EN-WM-104	On-Line Risk Assessment – Integrated Risk Summary Form	July 17, 2017
OP-903-001	Technical Specification Surveillance Logs	71

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-OP-104	Operability Determination Process	11
EN-OP-117	Operations Assessment Resources	9
OI-002-000	Annunciator and Control Room Instrumentation Status Control	308
OP-001-002	Reactor Coolant Pump Operation	22
OP-903-120	Containment and Miscellaneous Systems Quartely IST Valve Tests	25

Condition Reports (CRs)

CR-WF3-2016-06378	CR-WF3-2017-00728	CR-WF3-2017-05037	CR-WF3-2017-05335
CR-WF3-2017-05614	CR-WF3-2017-05617	CR-WF3-2017-05688	CR-WF3-2017-05710
CR-WF3-2017-05738	CR-WF3-2017-06666	CR-WF3-2017-07028	CR-WF3-2017-07029

Section 1R19: Post-Maintenance Testing

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Condition Analysis Template – Charging Pump 3A Circuit Breaker CVCEBKR31A-5C Did Not close When the Control Switch was Taken to the ON Position	June 19, 2017
	Critical Evolution Meeting Package for MS-401A Ground	September 19, 2017
W3-DBD-007	Chemical and Volume Control System	301

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
ECT-73256	Fast Dead Bus Transfer Test	0
EN-WM-107	Post Maintenance Testing	5
OP-903-046	Emergency Feed Pump Operability Check	319

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OP-903-094	ESFAS Subgroup Relay Test – Operating	29

Condition Reports (CRs)

CR-WF3-2017-05237	CR-WF3-2017-05266	CR-WF3-2017-06555	CR-WF3-2017-06563
CR-WF3-2017-07620	CR-WF3-2017-07626	CR-WF3-2017-07632	CR-WF3-2017-07633
CR-WF3-2017-07646	CR-WF3-2017-07681	CR-WF3-2017-07682	

Work Orders (WOs)

00480584	00480585	00482181	52697860
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Section 1R20: Refueling and Other Outage Activities

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OP-010-003	Plant Startup	344
OP-901-513	Spent Fuel Pool Cooling Malfunction	21
OP-902-000	Standard Post Trip Actions	16
OP-902-003	Loss of Offsite Power/Loss of Forced Circulation Recovery	10

Section 1R22: Surveillance Testing

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
OP-903-068	Emergency Diesel Generator and Subgroup Relay Operability Verification	318
OP-903-094	ESFAS Subgroup Relay Test – Operating	28

Work Orders (WOs)

52774100

Section 1EP6: Drill Evaluation

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Date</u>
	Simulator Scenario Package	September 28, 2017

Section 4OA1: Performance Indicator Verification

Miscellaneous Documents

<u>Number</u>	<u>Title</u>	<u>Date</u>
W3F1-2016-0068	NRC Performance Indicator (PI) Data – 3 rd Quarter 2016 ROP Data	October 12, 2016
W3F1-2016-0076	NRC Performance Indicator (PI) Data – Change Report Data 3 rd Quarter MSPI (INPO chg)	November 17, 2016
W3F1-2017-0007	NRC Performance Indicator (PI) Data – 4 th Quarter 2016 (October, November and December)	January 12, 2017
W3F1-2017-0008	NRC Performance Indicator (PI) Data – Change Report Data 3 rd Quarter 2016 Emergency Preparedness – Drill/exercise Performance	January 10, 2017
W3F1-2017-0036	NRC Performance Indicator (PI) Data – 1 st Quarter 2017 ROP Data	April 12, 2017
W3F1-2017-0047	PI Data Change Report 4 th Quarter 2016 Mitigating Systems Safety System Functional Failure Retraction	May 15, 2017
W3F1-2017-0058	PI 2 nd Quarter 2017 ROP Submittal	July 11, 2017

Section 4OA3: Follow-up of Events and Notices of Enforcement Discretion

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision/Date</u>
	Post Trip Review	July 21, 2017
	Transient Assessment Documentation Form	July 19, 2017
ECT-73256	Fast Dead Bus Transfer Test	0
OP-901-513	Spent Fuel Pool Cooling Malfunction	21
OP-902-000	Standard Post Trip Actions	16
OP-902-003	Loss of Offsite Power/Loss of Forced Circulation Recovery	10