

## UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION IV 1600 E LAMAR BLVD ARLINGTON, TX 76011-4511

November 3, 2014

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 05000382/2014004

Dear Mr. Chisum:

On September 30, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Waterford Steam Electric Station, Unit 3. On October 9, 2014, the NRC inspectors discussed the results of this inspection with you and other members of your staff. Inspectors documented the results of this inspection in the enclosed inspection report.

The inspections examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. Based on the results of this inspection, no findings were identified.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Website at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

Sincerely,

/RA/

Ryan Lantz, Chief Project Branch E Division of Reactor Projects M. Chisum - 2 -

Docket Nos.: 50-382 License Nos: NPF-38

Enclosure: Inspection Report 05000382/2014004 w/ Attachment: Supplemental Information

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# U.S. NUCLEAR REGULATORY COMMISSION REGION IV

Docket: 05000382

License: NPF-38

Report: 05000382/20140004

Licensee: Entergy Operations, Inc.

Facility: Waterford Steam Electric Station, Unit 3

Location: 17265 River Road

Killona, LA 70057

Dates: July 1 through September 30, 2014

Inspectors: F. Ramirez, Senior Resident Inspector

C. Speer, Resident Inspector

C. Steely, Senior Operations EngineerC. Young, Senior Project Engineer

J. Melfi, Project Engineer

L. Brookhart, Senior ISFSI Inspector

Approved Ryan Lantz, Chief By: Project Branch E

Division of Reactor Projects

- 1 - Enclosure

#### **SUMMARY**

IR 05000382/2014004; 07/01/2014 - 09/30/2014; Waterford Steam Electric Station, Unit 3; Integrated Resident and Regional Report

The inspection activities described in this report were performed between July 1 and September 30, 2014, by the resident inspectors at Waterford Steam Electric Station, Unit 3 and inspectors from the NRC's Region IV office. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process."

A. NRC-Identified Findings and Self-Revealing Findin	A.	<b>NRC-Identified</b>	<b>Findings</b>	and Self-	Revealing	ı Finding	ĮS
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None

### B. <u>Licensee-Identified Violations</u>

None

#### **PLANT STATUS**

The Waterford Steam Electric Station, Unit 3, began the inspection period at 100 percent power. The unit maintained 100 percent power for the duration of the inspection period.

#### REPORT DETAILS

#### 1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

#### **1R01** Adverse Weather Protection (71111.01)

Summer Readiness for Offsite and Alternate AC Power Systems

#### a. Inspection Scope

On July 3, 2014, 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 to observe the material condition of equipment providing off-site power sources.

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.

#### 1R04 Equipment Alignment (71111.04)

#### .1 Partial Walkdown

#### a. Inspection Scope

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

- On July 22, 2014, shield building ventilation train A with train B out-of-service for maintenance
- On September 17, 2014, low pressure safety injection train A with train B out-ofservice for maintenance
- On September 29, 2014, component cooling water system train B with train A out-of-service for testing

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 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.

#### .2 Complete Walkdown

#### a. <u>Inspection Scope</u>

On August 14, 2014, the inspectors performed a complete system walk-down inspection of the high pressure safety injection train B. The inspectors reviewed the licensee's procedures and system design information to determine the correct system lineup for the existing plant configuration. The inspectors also reviewed outstanding work orders, open condition reports, in-process design changes, and other open items tracked by the licensee's operations and engineering departments. The inspectors then visually verified that the system was correctly aligned for the existing plant configuration.

These activities constituted one complete system walk-down sample, as defined in Inspection Procedure 71111.04.

#### b. Findings

No findings were identified.

#### **1R05** Fire Protection (71111.05)

#### .1 Quarterly Fire Inspection Tours

#### a. Inspection Scope

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

- On July 8, 2014, fire area RAB 21, component cooling water pump B
- On July 8, 2014, fire area RAB 35, safety injection pump room B
- On August 11, 2014, fire area RAB 5, electrical penetration area B
- On August 11, 2014, fire area FWPH 1, fire water pump house
- On September 3, 2014, fire area RAB-1E, cable vault

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 five quarterly inspection samples, as defined in Inspection Procedure 71111.05.

#### b. Findings

No findings were identified.

#### .2 Annual Fire Protection Drill Observation

#### a. <u>Inspection Scope</u>

On September 12, 2014, the inspectors observed a fire brigade activation based on a simulated fire on the computer battery room, fire area RAB 8A. The observation evaluated the readiness of the plant fire brigade to fight fires. The inspectors verified that the licensee staff identified deficiencies; openly discussed them in a self-critical manner at the drill debrief, and took appropriate corrective actions. Specific attributes evaluated were (1) proper wearing of turnout gear and self-contained breathing apparatus; (2) proper use and layout of fire hoses; (3) employment of appropriate fire-fighting techniques; (4) sufficient firefighting equipment brought to the scene; (5) effectiveness of fire brigade leader communications, command, and control; (6) search for victims and propagation of the fire into other plant areas; (7) smoke removal operations; (8) utilization of preplanned strategies; (9) adherence to the preplanned drill scenario; and (10) drill objectives.

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

#### b. Findings

No findings were identified.

#### 1R06 Flood Protection Measures (71111.06)

#### a. Inspection Scope

On August 30, 2014, the inspectors completed an inspection of the station's ability to mitigate flooding due to internal causes. After reviewing the licensee's flooding analysis, the inspectors chose one plant area containing risk-significant structures, systems, and components that were susceptible to flooding:

#### Component cooling water pump rooms

The inspectors reviewed plant design features and licensee procedures for coping with internal flooding. The inspectors walked down the selected areas to inspect the design features, including the material condition of seals, drains, and flood barriers. The inspectors evaluated whether operator actions credited for flood mitigation could be successfully accomplished.

These activities constitute completion of one flood protection measures sample, as defined in Inspection Procedure 71111.06.

#### b. <u>Findings</u>

No findings were identified.

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

#### .1 Quarterly Review of Licensed Operator Regualification

#### a. <u>Inspection Scope</u>

On August 13, 2014, the inspectors observed a crew of licensed operators in the plant's simulator to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- Licensed operator performance
- Crew's clarity and formality of communications
- Crew's correct use and implementation of abnormal and emergency procedures
- Oversight and direction from supervisors
- Crew's ability to identify and implement appropriate technical specification actions and emergency plan actions and notifications

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

#### b. Findings

No findings were identified.

#### .2 Quarterly Review of Licensed Operator Performance

#### a. Inspection Scope

On July 8, 2014, the inspectors observed the performance of on-shift licensed operators in the plant's main control room. At the time of the observations, the plant was in various planned maintenance windows and was in a period of heightened activity due to adverse weather conditions. In addition, the inspectors assessed the operators' adherence to plant procedures, including conduct of operations procedure and other operations department policies.

These activities constitute 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 Regualification Examination Results

#### a. Inspection Scope

The inspectors reviewed the results of the operating tests to satisfy the annual requirements.

On August 27, 2014, the licensee informed the inspectors of the following results:

- 11 of 11 crews passed the simulator portion of the operating test
- 61 of 61 licensed operators passed the simulator portion of the operating test
- 61 of 61 licensed operators passed the job performance measure portion of the operating test

There were no crew failures or individual failures on the simulator or job performance measure portion of the operating test.

These activities constitute completion of one annual review of requalification examination results sample, as defined in Inspection Procedure 71111.11B.

#### b. Findings

No findings were identified.

#### **1R12** Maintenance Effectiveness (71111.12)

#### a. Inspection Scope

On August 12, 2014, the inspectors reviewed the licensee's periodic evaluation required by 10 CFR 50.65(a)(3) that evaluates performance and condition monitoring activities, and associated goals and preventative maintenance for structures, systems, and components (SSCs).

The inspectors verified that the periodic evaluation had been completed within the time constrains of the maintenance rule, and that the licensee had reviewed its 10 CFR 50.65(a)(1) goals, 10 CFR 50.65(a)(2) performance criteria, monitoring, and preventive maintenance activities, and effectiveness of corrective actions. In addition, the inspectors verified that industry operating experience had been taken into account where practicable and the licensee made appropriate adjustments as a result of the periodic evaluation.

These activities constituted completion of one maintenance effectiveness sample, 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

The inspectors reviewed two risk assessments performed by the licensee prior to changes in plant configuration and the risk management actions taken by the licensee in response to elevated risk:

- On July 2, 2014, scheduled maintenance activity on high pressure safety injection system train A with low pressure safety injection system train A out-ofservice
- On September 16, 2014, scheduled maintenance activities on emergency core cooling system train B

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 result of the assessment.

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

- On August 7, 2014, emergent maintenance on main steam first stage pressure instrument line
- On August 18, 2014, emergent maintenance activities on component cooling water system train A with the component cooling water system train B out-of-service
- On August 29, 2014, emergent maintenance on main feed water isolation valve 1

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 structures, systems, and components (SSCs).

These activities constitute completion of five 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 six operability determinations that the licensee performed for degraded or nonconforming structures, systems, or components (SSCs):

- On July 7, 2014, operability of containment vacuum relief differential pressure switches
- On July 21, 2014, operability of motor and diesel driven fire pumps
- On September 10, 2014, operability of safety-related cables inside cable spreading room
- On September 15, 2014, operability of safety injection train B
- On September 19, 2014, operability of dry cooling tower train B
- On September 25, 2014, operability of B atmospheric dump valve

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.

These activities constitute completion of six operability and functionality review samples, as defined in Inspection Procedure 71111.15.

#### b. Findings

No findings were identified.

#### 1R18 Plant Modifications (71111.18)

#### a. <u>Inspection Scope</u>

On July 8, 2014, the inspectors reviewed one permanent plant modification to raise the Azimuthal Tilt limit in the Core Operating Limits Report that affected risk-significant structures, systems, and components (SSCs).

The inspectors reviewed the design and implementation of the modification. The inspectors verified that work activities involved in implementing the modification did not adversely impact operator actions that may be required in response to an emergency or other unplanned event. The inspectors verified that post-modification testing was adequate to establish the operability of the SSC as modified.

These activities constitute completion of one sample of permanent modification, as defined in Inspection Procedure 71111.18.

#### b. Findings

No findings were identified.

#### 1R19 Post-Maintenance Testing (71111.19)

#### a. <u>Inspection Scope</u>

The inspectors reviewed five post-maintenance testing activities that affected risk-significant structures, systems, or components (SSCs):

- On July 30, 2014, containment spray system train A
- On August 18, 2014, emergency diesel generator train B
- On September 15, 2014, emergency core cooling system train B
- On September 23, 2014, safeguards pump room air handling unit motor train A
- On September 25, 2014, reactor trip circuit breaker 6

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 constitute completion of five post-maintenance testing inspection samples, as defined in Inspection Procedure 71111.19.

#### b. Findings

No findings were identified.

#### 1R22 Surveillance Testing (71111.22)

#### a. Inspection Scope

The inspectors observed six risk-significant surveillance tests and reviewed test results to verify that these tests adequately demonstrated that the structures, systems, and components (SSCs) were capable of performing their safety functions:

Reactor coolant system leak detection tests:

On July 23, 2014, reactor coolant system water inventory balance

Other surveillance tests:

- On July 9, 2014, auxiliary component cooling water header train A component cooling water heat exchanger outlet temperature control valve, ACC-126A
- On July 10, 2014, public alert and notification system tests
- On July 21, 2014, train B emergency diesel generator and subgroup relay operability verification

- On August 18, 2014, supply breaker for train A auxiliary spray valve, CVC-216A
- On September 25, 2014, train B condensate makeup system valve test

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 constitute completion of six surveillance testing inspection samples, as defined in Inspection Procedure 71111.22.

#### b. Findings

No findings were identified.

**Cornerstone: Emergency Preparedness** 

#### **1EP6** Drill Evaluation (71114.06)

**Emergency Preparedness Drill Observation** 

#### a. <u>Inspection Scope</u>

The inspectors observed an emergency preparedness drill on September 17, 2014, to verify the adequacy and capability of the licensee's assessment of drill performance. The inspectors reviewed the drill scenario, observed the drill from the control room simulator and emergency operations facility, and attended the post-drill critique. 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 licensee in the post-drill critique and entered into the corrective action program for resolution.

These activities constitute completion of one emergency preparedness drill observation sample, as defined in Inspection Procedure 71114.06.

#### b. <u>Findings</u>

No findings were identified.

#### 4. OTHER ACTIVITIES

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

#### **40A1** 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 October 1, 2013 through June 30, 2014 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 Waterford Steam Electric Station, Unit 3, as defined in Inspection Procedure 71151.

#### b. Findings

No findings were identified.

#### .2 <u>Mitigating Systems Performance Index: Residual Heat Removal Systems (MS09)</u>

#### a. Inspection Scope

The inspectors reviewed the licensee's mitigating system performance index data for the period of October 1, 2013 through June 30, 2014 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 Waterford Steam Electric Station, Unit 3, as defined in Inspection Procedure 71151.

#### b. Findings

No findings were identified.

#### .3 <u>Mitigating Systems Performance Index: Cooling Water Support Systems (MS10)</u>

#### a. Inspection Scope

The inspectors reviewed the licensee's mitigating system performance index data for the period of October 1, 2013 through June 30, 2014 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 Waterford Steam Electric Station, Unit 3, as defined in Inspection Procedure 71151.

#### b. Findings

No findings were identified.

#### 4OA2 Problem Identification and Resolution (71152)

#### .1 Routine Review

#### a. <u>Inspection Scope</u>

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. <u>Findings</u>

No findings were identified.

#### .2 Annual Follow-up of Selected Issues

#### a. <u>Inspection Scope</u>

The inspectors selected two issues for an in-depth follow-up:

 On August 27, 2014, a follow-up on degradation of security communications equipment

The inspectors assessed the licensee's problem identification threshold, cause analyses, extent of condition reviews and compensatory actions. The inspectors verified that the licensee appropriately prioritized the planned corrective actions and that these actions were adequate to correct the condition.

On August 26, 2014, review of operator workarounds

The inspectors reviewed operator workarounds and burdens and verified that the licensee was identifying them at an appropriate threshold, entering them in the corrective action program, and planning or taking appropriate corrective actions.

The inspectors considered the existing plant conditions including the cumulative effects of other operator workarounds.

These activities constitute completion of two annual follow-up samples, which included one operator work-around sample, as defined in Inspection Procedure 71152.

#### b. Findings

No findings were identified.

#### 4OA3 Follow-up of Events and Notices of Enforcement Discretion (71153)

.1 (Closed) Licensee Event Report 05000382/2013-003-00, "Failure to Test Manual Handwheels on Air Operated Valves"

On November 16, 2012, it was identified that periodic testing had not been established for the local manual handwheel function on 24 safety-related air operated valves that are required by design to operate after their associated air supply accumulator is exhausted. Subsequent testing by the licensee revealed that three AOVs associated with the emergency feedwater and auxiliary component cooling water systems would not operate using their associated manual hand wheels. The licensee completed corrective actions to restore the three valves' manual hand wheels to an operable status and to develop a test program for all the affected valves. Following the review of this issue, the inspectors documented non-cited violation 05000382/2013002-03, "Failure to Identify and Perform Testing to Demonstrate Local Manual Operation Action on Safety-Related Air-Operated Valves." Subsequently, the inspectors also documented non-cited violation 05000382/2013003-04, "Failure to submit an LER after discovery that manual handwheels of AOVs were not functional." As a result of the last non-cited violation the licensee submitted the licensee event report discussed in this section. During the review of this LER the inspectors did not identify additional issues. This licensee event report is closed.

.2 (Closed) Licensee Event Report 05000382/2013-007-00, Technical Specification 3.9.7 Violation, Loads Over Irradiated Fuel During Dry Fuel Storage Activities

On October 18, 2013, the licensee identified a violation of Technical Specification (TS) 3.9.7. Technical Specification 3.9.7 prohibited the use of a non-single failure-proof load handling system to lift a load greater than 2,000 pounds over irradiated fuel assemblies in the fuel handling building. The licensee had been using the auxiliary hoist to lift the HI-TRAC lid, weighing 2,500 pounds, over irradiated fuel located in a crane dry fuel canister. The licensee completed corrective actions by changing the procedure governing this activity to require using the single-failure proof handling system of the fuel handing building crane main hook instead of allowing the use of fuel handling building auxiliary hook. As part of the review of this event, the inspectors identified non-cited violation 07200075/201401-01, "Failure to Have Quality Procedures as Required by 10 CFR 72.150 which Contained Lift Height Requirements." The Holtec FSAR does allow the use of a non-single failure proof crane or hoist to lift the HI-TRAC lid onto the loaded transfer cask. However, the Holtec FSAR placed lift height restrictions on this lifting operation which the licensee failed to follow. This violation was documented in NRC Inspection Report 05000382/2014010 and 07200075/2014001. This licensee event report is closed.

These activities constitute completion of two event follow-up samples, as defined in Inspection Procedure 71153.

#### 4OA6 Meetings, Including Exit

#### **Exit Meeting Summary**

On August 27, 2014, after obtaining the final annual cycle results, the inspectors presented the results of the annual licensed operator requalification inspection to Mr. John Signorelli, Acting Training Manager. The inspectors did not review any proprietary information during this inspection.

On October 9, 2014, the inspectors presented the inspection results to Mr. Mike Chisum, Site Vice President, and other members of the licensee staff. The licensee acknowledged the issues presented. The licensee confirmed that any propriety information reviewed by the inspectors had been returned or destroyed.

#### **SUPPLEMENTAL INFORMATION**

#### **KEY POINTS OF CONTACT**

#### Licensee Personnel

- M. Chisum, Site Vice President, Operations
- M. Richey, General Manager, Plant Operations
- J. Briggs, Superintendent, Electrical Maintenance
- M. Chaisson, Supervisor, Radiation Protection
- K. Crissman, Senior Manager, Maintenance
- D. Frey, Manager, Radiation Protection
- R. Gilmore, Manager, Systems and Components
- A. James, Manager, Security
- J. Jarrell, Manager, Regulatory Assurance
- B. Lanka, Director, Engineering
- N. Lawless, Manager, Chemistry
- B. Lindsey, Senior Manager, Operations
- W. McKinney, Manager, Training
- S.W. Meiklejohn, Superintendent, I & C Maintenance
- M. Mills, Manager, Nuclear Oversight
- L. Milster, Licensing Specialist, Licensing
- R. Osborne, Manager, Performance Improvement
- B. Pellegrin, Senior Manager, Production
- N. Petit, Supervisor, Design Engineering
- J. Pollock, Licensing Specialist, Licensing
- R. Porter, Manager, Design & Program Engineering
- D. Reider, Supervisor, Quality Assurance
- C. Rich, Jr., Director, Regulatory & Performance Improvement
- R. Simpson, Superintendent, Operator Training
- J. Williams, Senior Licensing Specialist

#### NRC Personnel

- F. Ramirez, Senior Resident Inspector
- C. Speer, Resident Inspector

#### LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

#### Closed

05000382/2013-003-00 LER Failure to Test Manual Handwheels on Air Operated Valves

05000382/2013-007-00 LER Technical Specification 3.9.7 Violation, Loads Over Irradiated

Fuel During Dry Fuel Storage Activities

A-1 Attachment

#### LIST OF DOCUMENTS REVIEWED

#### **Section 1R01: Adverse Weather Protection**

## Procedures/Documents

<u>Number</u>	<u>Title</u>	Revision
OP-006-001	Plant Distribution (7KV, 4KV, and SSD) System	315
OP-006-008	Transformer Operation	305
OP-006-009	Electrical Bus Outages	11
OP-901-314	Degraded Grid Conditions	3

## **Condition Reports**

CR-WF3-2014-3660

## **Section 1R04: Equipment Alignment**

<u>Number</u>	<u>Title</u>	Revision
CEP-IST-2	Inservice Testing Plan	319
DRN M9600598	Inservice Testing Design Basis Document	1
MN(Q)-6-45	Duration of Water Barriers on Outside Containment Isolation Valves	1
OP-002-003	Component Cooling Water	312
OP-008-008	Shield Building Ventilation	10
OP-009-008	Safety Injection System	34
OP-903-043	Shield Building Ventilation Operability Check	304
OP-903-118	Primary Auxiliaries Quarterly IST Valve Tests	32
OP-903-120	Containment and Miscellaneous Systems Quarterly IST Valve Tests	18
SEP-WF3-IST-1	WF3 IST Bases Document	1
SEP-WF3-IST-2	WF3 Inservice Testing Plan	1
W3P84-0577	Appendix J Leak Rate Testing and Containment Isolation Valves	0

## **Condition Reports**

CR-WF3-2014-03661 CR-WF3-2014-02562 CR-WF3-2014-03694 CR-WF3-2014-04790 CR-WF3-2014-04789

#### **Section 1R05: Fire Protection**

#### Procedures/Documents

<u>Number</u>	<u>Title</u>	Revision
EN-TQ-125	Fire Brigade Drills	2
FWPH-001	Waterford-3 S.E.S Prefire Strategy Fire Water Pump House	3
NTP-202	Waterford 3 Training Manual Procedure Fire Protection Training	302
RAB 1E-001	Waterford-3 S.E.S Prefire Strategy Cable Vault	8
RAB 21-001	Waterford-3 S.E.S Prefire Strategy Component Cooling Water Pump "B"	7
RAB 35-001	Waterford-3 S.E.S Prefire Strategy Safety Injection Pump Room "B"	9
RAB 5-001	Waterford-3 S.E.S Prefire Strategy Electrical Penetration Area "B"	8

#### **Section 1R06: Flood Protection Measures**

#### Procedures/Documents

<u>Number</u>	<u>Title</u>	Revision
MNQ3-5	Flooding Analysis Outside Containment	4

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

<u>Number</u>	<u>Title</u>	Revision/Date
	Notification Message Forms - Drill	September 17, 2014
EN-OP-115	Conduct of Operations	115

#### **Section 1R12: Maintenance Effectiveness**

#### Procedures/Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
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EC 51894 Cycle 19, Refuel 19 Maintenance Rule (A)(3) Periodic

Assessment

OP-902-005 Station Blackout Recovery Procedure 17

#### **Condition Reports**

CR-WF3-2013-01752 CR-WF3-2013-05190 CR-WF3-2014-00703 CR-WF3-2014-02741

CR-WF3-2013-05406 CR-WF3-2013-03058

#### Section 1R13: Maintenance Risk Assessments and Emergent Work Control

#### Procedures/Documents

<u>Number</u>	<u>Title</u>	Revision/Date

B424 Louisiana Power & Light Co. Waterford S.E.S. Unite No.3 17

**Control Wiring Diagram** 

EN-WM-104 On Line Risk Assessment 9

G-151 Sheet 2 Main Extraction Steam Systems January 20,

1984

0

OI-037-000 Operation's Risk Assessment Guideline 306

OP-003-014 Control Room Ventilation August 18,

2014

SD-EDG Emergency Diesel Generator 20

#### **Condition Reports**

CR-WF3-2014-04600 CR-WF3-2014-04430

#### **Work Orders**

WO 52388790 WO 52470604

#### Section 1R15: Operability Determinations and Functionality Assessments

#### Procedures/Documents

Number Title Revision/Date

AOV Data Record MS116B 2

## Procedures/Documents

<u>Number</u>	<u>Title</u>	Revision/Date
5817-232	Atmospheric Dump Valve MS-116 Valve Drawing	10
5817-828	Atmospheric Dump Valve MS-116 Valve Data Sheet	9
EC 50662	Operability Input for Barton 228A and 289A Switches	0
EC 51160	Atmospheric Dump Valve Binding During Closed Stroke	0
EC-M97-059	Design Basis Review For Atmospheric Dump Valves MS-116A(B)	1
ECR 17569	Rebaseline of MS-116B	July 10, 2014
EN-DC-196	AOV Setpoint Control, Signature Analysis and Trending Evaluation	1
G151 SH 1	Flow Diagram Main & Extraction Steam Systems	45
G167, sheet 1	Flow Diagram, Safety Injection System	49
G167, sheet 2	Flow Diagram, Safety Injection System	52
G167, sheet 3	Flow Diagram, Safety Injection System	20
G167, sheet 4	Flow Diagram, Safety Injection System	17
LDCR 97-0123	Deletion of Valve Max Closure Times for ADVs MS-116A,B from FSAR Table 6.2-32	January 29, 1997
MS-011	Tagout, MS-116AB	May 26, 2014
OP-903-053	Fire Protection System Pump Operability Test	18
SEP-WF3-IST-1	WF3 IST Bases Document	1
TD-C600.0075	Control Components Self Drag Velocity Control Elements Modulating Atmospheric Vent, Operation and Maintenance Instructions for Part No. 922501050	1
W3-DBD-006	Main Steam System	301
W3-DBD-014	Safety Related, Air Operated Valves	302
W3-DBD-026	Containment Isolation And Leakage Rate Testing	0

## **Condition Reports**

CR-WF3-2014-01691 CR-WF3-2014-03046

Work Orders

WO 52563385

## **Section 1R18: Plant Modifications**

## Procedures/Documents

<u>Number</u>	<u>Title</u>	Revision
EC 51582	Evaluation to Raise the Core Operating Limits Report Tilt Limit from 3% to 5%	0
EN-LI-100	Process Applicability Determination	15
EN-LI-101	10 CFR 50.59 Evaluations	12
EN-LI-113	Licensing Basis Document Change Process	10
EN-OP-111	Operational Decision-Making Issue (IDMI) Process	11
WF3-NE-14- 00002	WSES-3 Cycle 20 Core Operating Limits Report	1

## **Condition Reports**

CR-WF3-2014-03332 CR-WF3-2014-03601

## **Section 1R19: Post-Maintenance Testing**

<u>Number</u>	<u>Title</u>	Revision/Date
1C20-1-01972	Tagout on ECCS B, RWSP Outlet Isolation	
B 424, sheet E2391	Control Wiring Diagram, Sequencer B, Sheet 1	4
B 424, sheet E2392	Control Wiring Diagram, Sequencer B, Sheet 2	8
B 424, sheet E2408	Control Wiring Diagram, 4.16 LV Bus 3AB3 – Under voltage Relays, Sh. 2	12
B 424, sheet E700	Control Wiring Diagram, Component Cooling Water Pumps Common Circuit	12
B 424, sheet E707	Control Wiring Diagram, Component Cooling Water Pump AB	4
B 424, sheet E707S	Control Wiring Diagram, Component Cooling Water Pump B	14
B 424, sheet E709	Control Wiring Diagram, Component Cooling Water Pump AB	9
CEP-IST-4	Standard on IST	307

<u>Number</u>	<u>Title</u>	Revision/Date
EN-WM-10	Post Maintenance Testing	4
G-163	Containment Spray & Refueling Water Storage Pool	January 18, 1983
IEEE Std 338- 1971	IEEE Trial-Use Criteria for the Periodic Testing of Nuclear Power Generating Station Protection Systems	
IEEE Std 338- 1975	IEEE Standard Criteria for the Periodic Testing of Nuclear Power Generating Station Class 1E Power and Protection Systems	
ME-004-154	Reactor Trip Switchgear Breaker Overhaul	2
ME-007-006	480 VAC and Less Squirrel Cage Induction Motors	16
ME-007-104	A-B Type RTC Solid State Timing Relay Testing	1
OP-002-003	Component Cooling Water	312
OP-902-002	Loss of Coolant Accident Recovery	018
OP-903-001	Technical Specification Surveillance Logs	058
OP-903-013	Monthly Channel Checks	18
OP-903-068	Emergency Diesel Generator and Subgroup Relay Operability Verification	309
OP-903-121	Safety Systems Quarterly IST Valve Test	016
OP-903-127	Reactor Trip Circuit Breaker Post-Maintenance Retest	4
SEP-WF3-IST-1	WF3 IST Bases Document Component Bases Sheets	1
SEP-WF3-IST-2	WF3 IST Plan	1
STA-001-005	Leakage Testing of Air and Nitrogen Accumulators for Safety Related Valves	313
TD-A022-0195	Allen-Bradley Bulletin 700 Relays	2
W3-DBD-013	Design Basis Document: Containment Spray System	301
W3-DBD-026	Design Basis Document: Containment Isolation and Leakage Rate Testing	0-8
WO 00393027	Remove TCB-6, Install Overhauled Spare Bkr	

### **Condition Reports**

CR-WF3-2014-04087 CR-WF3-2014-04748 CR-WF3-2014-04749

#### Work Orders

WO 52544569 WO 371879 WO 52556728 WO 326608

WO 52285641

#### **Section 1R22: Surveillance Testing**

#### Procedures/Documents

<u>Number</u>	<u>Title</u>	Revision/Date
EP-001-100	Technical Support Center (TSC) Activation, Operation, and Deactivation	40
EN-OP-115	Waterford Station Logs	July 21, 2014
OP-002-001	Auxiliary Component Cooling Water	306
OP-002-001	Auxiliary Component Cooling Water	305
OP-903-024	Reactor Coolant System Water Inventory Balance	22
OP-903-033	Cold Shutdown IST Valve Tests	41
OP-903-068	Emergency Diesel Generator Operability and Subgroup Relay Operability	309
OP-903-119	Secondary Auxiliaries Quarterly IST Valve Tests	18

#### **Condition Reports**

CR-WF3-2014-03166 CR-WF3-2012-03280 CR-WF3-2016-04324 CR-WF3-2014-03716 CR-WF3-2014-04413 CR-WF3-2014-03897

#### **Section 40A1: Performance Indicator Verification**

<u>Number</u>	<u>Title</u>	Revision
	Selected operator logs, October 1 2014 – June 30, 2014	
ECH-NE-09- 00036	Waterford 3 Mitigating System Performance Index Basis	1
EN-LI-114	Performance Indicator Process	6
NEI 99-02	Regulatory Assessment Performance Indicator Guideline	7

#### Procedures/Documents

Number <u>Title</u> <u>Revision</u>

UNT-007-066 Safety System Availability Management Guideline 0

#### **Condition Reports**

CR-WF3-2014-04882

#### Section 4OA2: Problem Identification and Resolution

## Procedures/Documents

<u>Number</u>	<u>Title</u>	<u>Revision</u>
	OPS AGGREGATE MONTHLY PI database spreadsheet	August, 2014
EN-FAP-OP-006	Operator Aggregate Impact Index Performance Indicator	2
EN-HU-106	Procedure and Work Instruction Use and Adherence	3
OP-901-523	Security Events	13

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

#### **Procedures/Documents**

NumberTitleRevisionHoltec International Final Safety Analysis Report for the HI-<br/>STORM 100 Cask System7DFS-003-006Stack-Up and Transfer of Loaded MPC5

#### **Condition Reports**

CR-WF3-2014-03571