



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
1600 EAST LAMAR BOULEVARD  
ARLINGTON, TEXAS 76011-4511

July 25, 2018

EA-18-053

Mr. William F. Maguire, Site Vice President  
Entergy Operations, Inc.  
River Bend Station  
5485 U.S. Highway 61N  
St. Francisville, LA 70775

SUBJECT: RIVER BEND STATION – NRC INTEGRATED INSPECTION  
REPORT 05000458/2018002 AND EXERCISE OF ENFORCEMENT  
DISCRETION

Dear Mr. Maguire:

On June 30, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your River Bend Station, Unit 1. On July 12, 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.

NRC inspectors documented a Severity Level IV violation in this report. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2.a of the NRC 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 IV; the Director, Office of Enforcement; and the NRC resident inspector at the River Bend Station.

Tornado-generated missile protection violations were identified for the following technical specifications: 3.8.1 AC Sources – Operating, 3.8.9 Distribution Systems – Operating, 3.5.1 ECCS – Operating, and 3.7.1 Standby Service Water System and Ultimate Heat Sink. Because the violations were identified during the discretion period covered by Enforcement Guidance Memorandum 15-002, Revision 1, "Enforcement Discretion for Tornado Missile Protection Non-compliance," and because the licensee was implementing compensatory measures, the NRC is exercising enforcement discretion by not issuing an enforcement action and is allowing continued reactor operation.

From June 2018 to July 2018, the NRC issued three Severity Level IV traditional enforcement violations associated with impeding the regulatory process. The NRC has determined that a follow-up inspection in accordance with Inspection Procedure 92723, "Follow-up Inspection for Three or More Severity Level IV Traditional Enforcement Violations in the Same Area in a 12-

Month Period,” will not be conducted at this time, on the basis that these violations do not represent a current broader concern involving deficient performance in a particular area. Should additional traditional enforcement violations in the same area be identified within a 12-month period, the need for a follow-up inspection will be reconsidered.

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,

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Jason W. Kozal, Chief  
Project Branch C  
Division of Reactor Projects

Docket No. 50-458  
License No. NPF-47

Enclosure:  
Inspection Report 05000458/2018002  
w/ Attachment: Documents Reviewed

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

Docket Number: 05000458

License Number: NPF-47

Report Number: 05000458/2018002

Enterprise Identifier: I-2018-002-0009

Licensee: Entergy Operations, Inc.

Facility: River Bend Station

Location: Saint Francisville, Louisiana

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

Inspectors: J. Sowa, Senior Resident Inspector  
B. Parks, Resident Inspector

Approved By: J. Kozal, Chief, Project Branch C  
Division of Reactor Projects

Enclosure

## SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee’s performance by conducting an integrated inspection at River Bend Station 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-identified and self-revealed findings, violations, and additional items are summarized in the table below.

### List of Findings and Violations

Failure to Correct Inadequate Technical Specification Pressure Temperature Curves			
Cornerstone	Significance	Cross-cutting Aspect	Report Section
None	SL-IV NCV 05000458/2018002-01 Closed	None	71153 – Follow-up of Events and Notices of Enforcement Discretion
<p>The inspectors identified a Severity Level IV non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” for the licensee’s failure to promptly identify and correct a condition adverse to quality. Specifically, after receiving vendor information indicating that existing technical specification pressure temperature (PT) curves were inadequate, the licensee failed to promptly identify and correct the condition through the license amendment process.</p>			

### Additional Tracking Items

Type	Issue number	Title	Report Section	Status
LER	05000458/2017-009-00	Potential Loss of Safety Function of Secondary Containment Due to Unsecured Personnel Door	71153	Closed

## PLANT STATUS

River Bend Station began the inspection period at rated thermal power. On May 11, 2018, operators reduced power to 65 percent for power suppression testing to locate and suppress a suspected nuclear fuel leak. The unit was returned to rated thermal power on May 14, 2018. On June 1, 2018, operators reduced power to 65 percent for power suppression testing to locate and suppress a suspected nuclear fuel leak. The unit was returned to rated thermal power on June 6, 2018. The unit remained at or near rated thermal power for the remainder of the inspection period.

## INSPECTION SCOPES

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

## REACTOR SAFETY

### 71111.01—Adverse Weather Protection

#### Summer Readiness (1 Sample)

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

#### Impending Severe Weather (1 Sample)

The inspectors evaluated readiness for impending adverse weather conditions for severe thunderstorms on June 18, 2018.

### 71111.04—Equipment Alignment

#### Partial Walkdown (3 Samples)

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

- (1) Division I control room fresh air system on May 1, 2018
- (2) Low pressure core spray system on May 2, 2018
- (3) Division I emergency diesel generator system on June 18, 2018

## 71111.05AQ—Fire Protection Annual/Quarterly

### Quarterly Inspection (4 Samples)

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

- (1) Low pressure core spray pump room, fire area AB-6/Z-1 on April 19, 2018
- (2) Low pressure core spray panel room, fire area AB-6/Z-2 on April 19, 2018
- (3) High pressure core spray battery charger room, fire area C-21 on May 1, 2018
- (4) Division I emergency diesel generator room, fire area DG-6/Z-1 on June 18, 2018

### Annual Inspection (1 Sample)

This evaluation included observation of an announced fire drill for training on April 5, 2018. 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 also reviewed whether the licensee's fire brigade met NRC requirements for training, dedicated size and membership, and equipment.

## 71111.11—Licensed Operator Requalification Program and Licensed Operator Performance

### Operator Requalification (1 Sample)

The inspectors observed and evaluated licensed operator requalification training on June 26, 2018.

### Operator Performance (1 Sample)

The inspectors observed and evaluated the operators' performance during a period of heightened risk associated with online replacement of a power supply in the turbine digital electro-hydraulic control system on June 19, 2018.

## 71111.12—Maintenance Effectiveness

### Routine Maintenance Effectiveness (2 Samples)

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

- (1) Functional failure review of the main steam system on April 16, 2018
- (2) Functional failure review of low pressure core spray on April 23, 2018

## 71111.13—Maintenance Risk Assessments and Emergent Work Control (4 Samples)

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

- (1) Yellow risk condition during planned maintenance on Division I residual heat removal system on April 2, 2018
- (2) Green risk condition with low pressure core spray system out of service concurrent with Division II control room fresh air system inoperable on May 1, 2018
- (3) Yellow risk condition associated with Division II standby service water inoperability during surveillance testing on May 14, 2018
- (4) Yellow risk condition during surveillance testing on Division II diesel generator with flex diesel generator nonfunctional on June 10, 2018

#### 71111.15—Operability Determinations and Functionality Assessments (5 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) DC electrical distribution system after discovery of single failure vulnerability in the control building air conditioning system on April 12, 2018
- (2) E31-N604D main steam line tunnel temperature exceeded allowable values per surveillance test requirements on April 14, 2018
- (3) Transient in the reference leg piping for C level instruments causing a half-scam on April 17, 2018
- (4) 10 CFR 21 evaluation of low pressure core spray pump minimum flow to suppression pool check valve CSL-V10 on April 26, 2018
- (5) Emergency diesel generators, Division II AC electrical distribution subsystems, residual heat removal system, and the standby service water system susceptibility to tornado generated missiles on June 25, 2018

#### 71111.19—Post Maintenance Testing (6 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) STP-204-6303, Revision 21, "Div I RHR Quarterly Valve Operability Test," following stem nut replacement on residual heat removal pump A minimum flow line isolation valve operator on April 13, 2018
- (2) STP-205-6301, Revision 24, "Low Pressure Core Spray Pump and Valve Operability Test," following maintenance on low pressure core spray discharge line fill pump discharge check valve E21-VF033 on April 18, 2018
- (3) STP-203-1608, Revision 23, "E22-S001 Battery Service Discharge Test," following replacement of the Division III battery on April 19, 2018
- (4) STP-205-6301, Revision 25, "LPCS Pump and Valve Operability Test," following bearing replacement on low pressure core spray line fill pump on May 1, 2018

- (5) SOP-0058, Revision 24, "Control Building HVAC System (Sys #402)," HVK-CHL1C post-maintenance test following installation of oil recovery modification on May 6, 2018
- (6) SOP-0030, Revision 33, "High Pressure Core Spray," post-maintenance test after clean and inspect of E22-F001, high pressure core spray pump condensate storage tank suction valve on June 18, 2018

#### 71111.22—Surveillance Testing

The inspectors evaluated the following surveillance tests:

##### Routine (3 Samples)

- (1) STP-402-8605, Revision 3, "Division II Main Control Room Fresh Air System Laboratory Carbon Filter Analysis," on May 3, 2018
- (2) STP-257-8602, Revision 2, "Division II Standby Gas Treatment System Carbon Analysis," on May 10, 2018
- (3) STP-205-0201, Revision 15, "LPCS Piping Water Fill and Valve Position Verification," May 1, 2018

##### In-service (1 Sample)

- (1) STP-205-6301, Revision 25, "LPCS Pump and Valve Operability Test," on April 18, 2018

#### 71114.06—Drill Evaluation

##### Drill/Training Evolution (1 Sample)

The inspectors evaluated an emergency preparedness drill on April 24, 2018.

### **OTHER ACTIVITIES – BASELINE**

#### 71151—Performance Indicator Verification (3 Samples)

The inspectors verified licensee performance indicators submittals listed below:

- (1) MS05: Safety System Functional Failures (SSFFs) Sample (04/01/2017 - 03/31/2018)
- (2) MS06: Emergency AC Power Systems (04/01/2017 - 03/31/2018)
- (3) MS07: High Pressure Injection Systems (04/01/2017 - 03/31/2018)

#### 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.



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

### Licensee Event Reports (1 Sample)

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

- (1) Licensee Event Report 05000458/2017-009-00, Potential Loss of Safety Function of Secondary Containment Due to Unsecured Personnel Door on November 13, 2017

### **INSPECTION RESULTS**

Enforcement Discretion	Enforcement Action (EA)-18-053: Enforcement Discretion for Tornado-Generated Missile Protection Noncompliances	71111.15 – Operability Determinations and Functionality Assessments
<p><u>Description:</u></p> <p>Title 10 CFR Part 50, Appendix A, “General Design Criteria for Nuclear Power Plants,” Criterion 2, “Design Bases for Protection Against Natural Phenomena,” states, in part, that systems, structures, and components (SSCs) important to safety shall be designed to withstand the effects of natural phenomena, such as tornadoes. Criterion 4, “Environmental and Dynamic Effects Design Basis,” states, in part, that SSCs important to safety shall be appropriately protected against dynamic effects including missiles that may result from events and conditions outside the nuclear power unit. Section 3.5.2, “Structures, Systems, and Components to be Protected from Missiles,” of the Updated Safety Analysis Report (USAR) details the structures that are designed to withstand tornado missile impact.</p> <p>On February 7, 2017, the NRC issued Enforcement Guidance Memorandum (EGM) 15-002, “Enforcement Discretion for Tornado-Generated Missile Protection Noncompliance,” Revision 1 (ADAMS Accession Number ML16355A286). The EGM referenced a bounding generic risk analysis performed by the NRC staff that concluded that tornado missile vulnerabilities pose a low risk significance to operating nuclear plants. Because of this, the EGM described the conditions under which the NRC staff may exercise enforcement discretion for noncompliance with the current licensing basis for tornado-generated missile protection. Specifically, if the licensee could not meet the technical specification required actions within the required completion time, the EGM allows the staff to exercise enforcement discretion provided the licensee implements initial compensatory measures prior to the expiration of the time allowed by the limiting condition for operation. The compensatory actions should provide additional protection such that the likelihood of tornado missile effects are lessened. The EGM then requires the licensee to implement more comprehensive compensatory measures within approximately 60 days of issue discovery. The compensatory measures must remain in place until permanent repairs are completed, or until the NRC dispositions the non-compliance in accordance with a method acceptable to the NRC such that discretion is no longer needed. Because EGM 15-002 listed River Bend Station as a Group A plant, enforcement discretion expired on June 10, 2018. On May 10, 2018, River Bend Station submitted a request to extend the enforcement discretion period to June 10,</p>		

2020. On May 31, 2018, River Bend Station submitted a supplement to the May 10 request. On June 6, 2018, the NRC granted an extension to the enforcement discretion until June 10, 2020.

The initial conditions of Design Basis Accident (DBA) and transient analyses in the USAR, Chapter 6 and Chapter 15, assume Engineered Safeguards Features (ESF) systems are operable. The AC, DC, and AC vital bus electrical power distribution systems are designed to provide sufficient capacity, capability, redundancy, and reliability to ensure the availability of necessary power to ESF systems so that the fuel, reactor coolant system, and containment design limits are not exceeded.

The onsite standby power source for each 4.16 kV ESF bus is a dedicated emergency diesel generator (EDG). An EDG starts automatically on a loss of coolant accident signal (i.e., low reactor water level signal or high drywell pressure signal) or on an ESF bus degraded voltage or under voltage signal. In the event of a loss of preferred power, the ESF electrical loads are automatically connected to the EDGs in sufficient time to provide for safe reactor shutdown and to mitigate the consequences of a DBA such as a loss of coolant accident.

Standby service water (SSW) is required by Technical Specification 3.7.1. The ultimate heat sink (UHS) consists of one 200 percent capacity cooling tower and one 100 percent capacity water storage basin. The UHS basin capacity is required by Regulatory Guide 1.27 and USAR 9.2.5 to maintain a minimum of 30 days inventory to mitigate the consequences of a DBA without replenishment. The UHS is designed to perform its safety function assuming a single failure coincident with a loss of offsite power and with respect to the 30 day mission time assuming a single division of SSW is in service.

The safety design bases of these SSCs includes ensuring the SSCs are protected from the effects of natural phenomena, such as earthquakes, tornadoes, hurricanes, floods, and external missiles (GDC-2).

On May 4, 2018, the licensee identified vulnerabilities in the EDG building, the control building, and the SSW cooling tower where tornado-born missiles could potential render safety-related equipment contained in these buildings inoperable. Potentially affected equipment included all three EDGs, Division II DC electrical power distribution subsystem, residual heat removal (RHR) pumps B and C, SSW pumps A, B, C, and D, Division I standby cooling tower fans, and multiple Division I SSW motor operated valves. These vulnerabilities were identified as part of the licensee's review of Regulatory Information Summary 2015-06, "Tornado Missile Protection." These issues were entered into the corrective action program as Condition Reports CR-RBS-2018-02687, 02768, and 02775.

Corrective Actions: As a result of these issues, the licensee declared all three EDGs, the Division II DC electrical power distribution subsystem, RHR pumps B and C, SSW pumps A, B, C, and D, Division I standby cooling tower fans, and multiple Division I SSW motor operated valves inoperable, complied with the applicable technical specification action statements, initiated Condition Reports CR-RBS-2018-02687, 02768, and 02775, invoked the EGM discretion guidance, implemented initial compensatory measures, and returned the SSCs to an operable- degraded/non-conforming status. The licensee instituted compensatory measures intended to reduce the likelihood of tornado missile effects. These included verifying that guidance was in place for severe weather procedures, abnormal and emergency operating procedures, and FLEX support guidelines, verifying that training on these

procedures was current, and verifying that a heightened level of awareness of the vulnerability was established.

Corrective Action Reference(s): CR-RBS-2018-02687, CR-RBS-2018-02768, and CR-RBS-2018-02775

Enforcement:

Violations: Technical Specification 3.8.1 requires, in part, that three diesel generators shall be operable in Modes 1, 2, and 3. Technical Specification 3.8.1.H requires entry into Limiting Condition for Operation 3.0.3 when three or more required AC sources are inoperable. Limiting Condition for Operation 3.0.3 requires that action shall be initiated within one hour to place the unit in Mode 2 within 7 hours, in Mode 3 within 13 hours, and in Mode 4 within 37 hours.

Contrary to the above, prior to May 4, 2018, three diesel generators were not operable, and action was not initiated to place the unit in Mode 2 within 7 hours, in Mode 3 within 13 hours, and in Mode 4 within 37 hours. Specifically, the EDG building was not designed to withstand the effects of natural phenomena, such as tornadoes. The licensee initiated a condition report, invoked the enforcement discretion guidance, implemented initial compensatory measures, and returned the SSCs to an operable- degraded/non-conforming status. The inspectors verified through inspection sampling that the EGM 15-002 criteria were met and that the issue was documented in Condition Report CR-RBS-2018-02687. Therefore, EGM 15-002 enforcement discretion was applied to the required shutdown actions associated with this technical specification.

Technical Specification 3.8.9 requires, in part, that the Division II AC and AC vital bus electrical power distribution subsystems shall be operable in Modes 1, 2, and 3. Technical Specification 3.8.9.D requires the station to take action to place the unit in Mode 3 within 12 hours when one or more AC or AC vital bus electrical power distribution subsystems have been inoperable for more than 8 hours.

Contrary to the above, prior to May 4, 2018, the Division II AC and AC vital bus electrical power distribution subsystems were not operable for more than 8 hours, and action was not initiated to place the unit in Mode 3 within 12 hours. Specifically, the control building was not designed to withstand the effects of natural phenomena, such as tornadoes. The licensee initiated a condition report, invoked the enforcement discretion guidance, implemented initial compensatory measures, and returned the SSCs to an operable- degraded/non-conforming status. The inspectors verified through inspection sampling that the EGM 15-002 criteria were met and that the issue was documented in Condition Report CR-RBS-2018-02768. Therefore, EGM 15-002 enforcement discretion was applied to the required shutdown actions associated with this technical specification.

Technical Specification 3.5.1 requires, in part, that each emergency core cooling system (ECCS) injection subsystem shall be operable in Modes 1, 2, and 3. Technical Specification 3.5.1.D requires the station to take action to place the unit in Mode 3 within 12 hours when two ECCS injection subsystems have been inoperable for more than 72 hours.

Contrary to the above, prior to May 4, 2018, two required ECCS injection subsystems that included RHR pumps B and C were inoperable for more than 72 hours, and action was not initiated to place the unit in Mode 3 within 12 hours. Specifically, the control building was not designed to withstand the effects of natural phenomena, such as tornadoes. The licensee

initiated a condition report, invoked the enforcement discretion guidance, implemented initial compensatory measures, and returned the SSCs to an operable- degraded/non-conforming status. The inspectors verified through inspection sampling that the EGM 15-002 criteria were met and that the issue was documented in Condition Report CR-RBS-2018-02768. Therefore, EGM 15-002 enforcement discretion was applied to the required shutdown actions associated with this technical specification.

Technical Specification 3.7.1 requires, in part, that two SSW subsystems shall be operable in Modes 1, 2, and 3. Technical Specification 3.7.1.H requires the station to take action to place the unit in Mode 3 within 12 hours when both pumps associated with one SSW subsystem have been inoperable for more than 72 hours.

Contrary to the above, prior to May 4, 2018, SSW pumps P2B and P2D, associated with SSW subsystem B, were inoperable for more than 72 hours, and action was not initiated to place the unit in Mode 3 within 12 hours. Specifically, the SSW cooling tower was not designed to withstand the effects of natural phenomena, such as tornadoes. The licensee initiated a condition report, invoked the enforcement discretion guidance, implemented initial compensatory measures, and returned the SSCs to an operable- degraded/non-conforming status. The inspectors verified through inspection sampling that the EGM 15-002 criteria were met and that the issue was documented in Condition Report CR-RBS-2018-02775. Therefore, EGM 15-002 enforcement discretion was applied to the required shutdown actions associated with this technical specification.

Severity/Significance: Not Applicable

Basis for Discretion: The NRC exercised enforcement discretion in accordance with EGM 15-00, Revision 1, because the licensee implemented initial compensatory measures in accordance with the EGM.

Observation	71152 – Problem Identification and Resolution
<p>During the first half of the year, the licensee experienced a number of adverse events in the area of equipment reliability. These events included multiple fuel failures, a failure of the Division III Emergency Diesel Generator output breaker to properly close during surveillance testing, an inadvertent high pressure core spray system actuation during maintenance on a level instrument, and the discovery of tornado missile vulnerabilities in safety-related systems. In response to these events, the licensee identified an adverse trend in the area of equipment reliability, which is documented in CR-RBS-2018-03001.</p>	

Failure to Correct Inadequate Technical Specification Pressure Temperature Curves			
Cornerstone	Significance	Cross-cutting Aspect	Report Section
None	SL-IV NCV 05000458/2018002-01 Closed	None	71153 – Follow-up of Events and Notices of Enforcement Discretion
<p>The inspectors identified a Severity Level IV non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to promptly identify and correct a condition adverse to quality. Specifically, after receiving vendor information indicating that existing technical specification pressure temperature (PT) curves were inadequate, the licensee failed to promptly identify and correct the condition through the license amendment process.</p>			
<p><u>Description:</u></p> <p>In November 2009, General Electric Hitachi (GEH) provided information to the licensee indicating that the PT curves in the station's technical specifications had been developed based on an analysis that was non-conservative with respect to the N-12 water level instrument nozzle as a component subject to potential failure. This non-conservatism conflicted with the requirements of 10 CFR Part 50, Appendix G, "Fracture Toughness Requirements," Section IV.2.b, which requires that PT limits be as conservative as limits obtained by following the methods of analysis and the margins of safety of the ASME Code.</p> <p>GEH subsequently provided the licensee with corrected PT curves that incorporated the necessary conservatism with respect to the nozzle. After receiving these curves, the licensee inserted them into the site procedure used to verify PT limits, STP-050-0700. However, the licensee failed to correct the existing PT curves in the technical specifications. The licensee reasoned that because the N-12 water level instrument nozzle was made of austenitic stainless steel, the conservatism requirements of Appendix G did not apply, and therefore correcting the existing PT curves in the technical specifications was not required.</p> <p>In October 2017, during license renewal inspections, NRC inspectors noted that the PT curves in procedure STP-050-0700 did not match the PT curves in the technical specifications. The inspectors brought the discrepancy to the licensee's attention, and the licensee entered it into their corrective action program. During a subsequent review of the issue, the licensee concluded that the conservatism requirements of Appendix G did apply to the N-12 water level instrument nozzle because the nozzle contains a weld region that is composed of ferritic materials.</p> <p>The failure of the River Bend Station technical specification PT curves to meet the conservatism requirements of Appendix G is a condition adverse to quality. Information revealing the condition was originally provided to the licensee by GEH in September 2009. The condition continued to exist without appropriate corrective action until it was discovered by the NRC during license renewal inspections in October 2017.</p> <p>Corrective Actions: To correct the condition, the licensee has submitted a license amendment request to the NRC seeking to incorporate the corrected PT curves into technical specifications.</p>			

Corrective Action Reference: CR-RBS-2017-07777

Performance Assessment:

Performance Deficiency: The failure to promptly identify and correct a condition adverse to quality was a performance deficiency.

Screening: The performance deficiency was evaluated in accordance with the reactor oversight process and was determined to be minor because the licensee maintained plant conditions within appropriate PT curve limits at all times. The performance deficiency was evaluated in accordance with the traditional enforcement process and determined to be a Severity Level IV violation because it impacted the ability of the NRC to perform its regulatory oversight function. Specifically, by addressing an inadequacy in technical specifications through a procedure change rather than through the required license amendment process, the licensee prevented the NRC from performing the regulatory reviews associated with that process.

Significance: The violation was determined to be a Severity Level IV violation.

Cross-cutting Aspect: None

Enforcement:

Violation: Title 10 CFR Part 50, Appendix B, "Corrective Action," requires, in part, that measures be established to assure that conditions adverse to quality are promptly identified and corrected. Contrary to the above, from September 2009 until October 2017, River Bend Station failed to promptly identify and correct a condition adverse to quality associated with technical specification PT curves.

Disposition: Because this SL-IV violation was neither repetitive nor willful, it is being treated as a non-cited violation consistent with Section 2.3.2.a of the NRC Enforcement Policy.

## **EXIT MEETINGS AND DEBRIEFS**

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

On July 12, 2018, the inspectors presented the quarterly resident inspector inspection results to Mr. W. Maguire, Site Vice President, and other members of the licensee staff.

## DOCUMENTS REVIEWED

### 71111.01—Adverse Weather Protection

#### Condition Reports (CR-RBS-)

2018-02084                      2018-02688                      2018-02871                      2018-02882

#### Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
AOP-0029	Severe Weather Operation	040
EN-FAP-EP-10	Severe Weather Response	006
ENS-DC-199	Off Site Power Supply Design Requirements Nuclear Plant Interface Requirements	9
ENS-DC-201	ENS Transmission Grid Monitoring	7
OSP-0031	Log Report – Outside Area	098
OSP-0045	Summer Reliability Equipment Monitoring	010
OSP-0048	Switchyard Transformer Yard and Sensitive Equipment Controls	036

#### Work Order

00502012

### 71111.04—Equipment Alignment

#### Condition Reports (CR-RBS-)

2018-02035                      2018-02038                      2018-02166                      2018-02588  
2018-02592

#### Drawing

<u>Number</u>	<u>Title</u>	<u>Revision</u>
PID-27-05A	Engineering P&I Diagram, Low Pressure Core Spray	23

#### Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
SOP-0032	Low Pressure Core Spray System	24
SOP-0053	Standby Diesel Generator and Auxiliaries	338

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
SOP-0058	Control Building HVAC System (Sys #402)	24

71111.05—Fire Protection

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
AB-070-501	LPCS Pump Room Fire Area AB-6/Z-1	4
AB-095-511	LPCS Panel Room Fire Area AB-6/Z-2	3
CB-116-137	HPCS Battery Charger Room Fire Area C-21	3
DG-098-054	Diesel Generator A Room Fire Area DG-6/Z-1	4

71111.11—Licensed Operator Regualification Program and Licensed Operator Performance

Condition Report (CR-RBS-)

2018-03325

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-OP-115	Conduct of Operations	025
RSMS-OPS-0560	Simulator Scenario	01

71111.12—Maintenance Effectiveness

Condition Reports (CR-RBS-)

2016-05003	2017-00618	2017-05271	2017-07063
2018-01087	2018-01391	2018-01786	

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-DC-203	Maintenance Rule Program	4
EN-DC-204	Maintenance Rule Scope and Basis	4
EN-DC-205	Maintenance Rule Monitoring	6
EN-DC-206	Maintenance Rule (A)(1) Process	3
SOP-0032	Low Pressure Core Spray (SYS #205)	24



71111.13—Maintenance Risk Assessments and Emergent Work Control

Condition Report (CR-RBS-)

2018-03251

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
ADM-0096	Risk Management Program Implementation and On-Line Maintenance Risk Assessment	327
EN-WM-104	On Line Risk Assessment	16

71111.15—Operability Determinations and Functionality Assessments

Calculation

<u>Number</u>	<u>Title</u>	<u>Revision</u>
4216.110-996-001	Control Building Heatup Analysis Following Loss of HVAC	01

Condition Reports (CR-RBS-)

2001-00145	2002-02211	2004-05718	2018-00922
2018-01087	2018-02207	2018-02266	2018-02314
2018-02687	2018-02768	2018-02775	

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
AOP-0060	Loss of Control Building Ventilation	16
EN-OP-104	Operability Determination Process	14
STP-000-0001	Daily Operating Logs	83

71111.19—Post-Maintenance Testing

Condition Reports (CR-RBS-)

2016-05003	2018-01628	2018-02069	2018-02701
2018-02732	2018-02770	2018-03151	2018-03262

Drawings

<u>Number</u>	<u>Title</u>	<u>Revision</u>
PID-27-05A	Engineering P&I Diagram System 205 Low Pressure Core Spray	23
PID-27-07A	Engineering P&I Diagram System 204 Residual Heat Removal – LPCI	38

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
SOP-0030	High Pressure Core Spray	33
SOP-0058	Control Building HVAC System (Sys #402)	24
STP-203-1302	E22-S001 Battery Service Discharge Test	23
STP-203-1602	E22-S001 Battery Inspection	15
STP-203-1608	E22-S001 Battery Service Discharge Test	23
STP-204-6303	Div I RHR Quarterly Valve Operability Test	21
STP-204-6601	Div I RHR Position Indication Verification Test	302
STP-205-0201	LPCS Piping Water Fill and Valve Position Verification	15
STP-205-6301	LPCS Pump and Valve Operability Test	24
STP-205-6301	LPCS Pump and Valve Operability Test	25

Work Orders

00232377	00456522	00456834	52571105	52681534
52688138	52816444	52816457		

71111.22—Surveillance Testing

Condition Reports (CR-RBS-)

2004-02799	2008-00495	2011-08266	2018-02335
2018-02592	2018-02739		

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
SEP-RBS-IST-1	RBS IST Basis Document	6
SEP-RBS-IST-2	RBS IST Plan	9

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
STP-205-0201	LPCS Piping Water Fill and Valve Position Verification	15
STP-205-6301	LPCS Pump and Valve Operability Test	25

Work Orders

00500770	52801069	52810908	52816457
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71114.06—Drill Evaluation

Miscellaneous

<u>Number</u>	<u>Title</u>	<u>Revision</u>
RDRL-EP-1800	EP Evaluated Exercise	2

71151—Performance Indicator Verification

Procedure

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-LI-114	Performance Indicator Process	11
NEI 99-02	Regulatory Assessment Performance Indicator Guideline	7

71152—Problem Identification and Resolution

Condition Reports (CR-RBS-)

2018-00405	2018-01277	2018-01391	2018-01982
2018-02524	2018-02687	2018-03001	

Procedure

<u>Number</u>	<u>Title</u>	<u>Revision</u>
EN-LI-121	Trending and Performance Review Process	24

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

Condition Report (CR-RBS-)

2018-02387

2018-02768

2018-02775

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