



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION IV  
1600 EAST LAMAR BOULEVARD  
ARLINGTON, TEXAS 76011-4511

December 12, 2022

Kent Scott, Site Vice President  
Entergy Operations, Inc.  
5485 U.S. Highway 61N  
St. Francisville, LA 70775

**SUBJECT: RIVER BEND STATION – TRIENNIAL FIRE PROTECTION INSPECTION  
REPORT 05000458/2022010**

Dear Kent Scott:

On November 3, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at River Bend Station and discussed the results of this inspection with Mr. Bruce Chenard, General Manager - Plant Operations and other members of your staff. The results of this inspection are documented in the enclosed report.

One finding of very low safety significance (Green) is documented in this report. This finding involved a violation of NRC requirements and was determined to be Severity Level IV. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

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

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; and the NRC Resident Inspector at River Bend Station.

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 Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,



Signed by Taylor, Nicholas  
on 12/12/22

Nicholas H. Taylor, Chief  
Engineering Branch 2  
Division of Operating Reactor Safety

Docket No. 05000458  
License No. NPF-47

Enclosure:  
As stated

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RIVER BEND STATION – TRIENNIAL FIRE PROTECTION INSPECTION REPORT  
 05000458/2022010 DATED DECEMBER 12, 2022

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

Docket Number: 05000458

License Number: NPF-47

Report Number: 05000458/2022010

Enterprise Identifier: I-2022-010-0009

Licensee: Entergy Operations, Inc.

Facility: River Bend Station

Location: St. Francisville, LA

Inspection Dates: October 17 to November 03, 2022

Inspectors: S. Graves, Senior Reactor Inspector, Team Lead  
R. Deese, Senior Reactor Analyst  
S. Makor, Reactor Inspector  
N. Okonkwo, Reactor Inspector

Approved By: Nicholas H. Taylor, Chief  
Engineering Branch 2  
Division of Operating Reactor Safety

Enclosure

## SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a triennial fire protection 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.

### List of Findings and Violations

Failure to Obtain Prior Approval for a Change Which Adversely Affected the Approved Fire Protection Program			
Cornerstone	Significance/Severity	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green Severity Level IV NCV 05000458/2022010-01 Open/Closed	[H.8] - Procedure Adherence	71111.21N.05
The inspectors identified a Green finding and associated Severity Level IV Non-cited violation (NCV) of License Condition 2.C(10), "Fire Protection (Section 9.5.1, SER and SSER 3)," when the licensee made a change to their approved FPP after inappropriately categorizing the impact of the change as negligible. Specifically, the licensee made a change to their Technical Requirements Manual (TRM) that removed a previously approved shutdown action for a condition in which the fire suppression water system was nonfunctional after they inappropriately categorized the change under their impact analysis procedure. This change had an adverse affect on the ability to achieve and maintain safe shutdown in the event of a fire and would have required NRC review and/or approval prior to implementation.			

### Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
URI	05000458/2022010-02	Functional Testing of Fire-rated Dampers	71111.21N.05	Open

## INSPECTION SCOPES

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

## REACTOR SAFETY

### 71111.21N.05 - Fire Protection Team Inspection (FPTI)

#### Structures, Systems, and Components (SSCs) Credited for Fire Prevention, Detection, Suppression, or Post-Fire Safe Shutdown Review (IP Section 03.01) (3 Samples)

The inspectors verified that components and/or systems will function as required to support the credited functions stated for each sample. Additional inspection considerations are located in the fire hazards analysis (FHA) or safe shutdown analysis (SSA).

- (1) Verified that operator actions could be accomplished as assumed in the licensee's FHA and SSA for fires in the Control Room and Fire Area 16, which included the Division I Remote Shutdown Room. Performed a walkthrough with plant Operations staff of risk-significant portions of AOP-0031, "Shutdown From Outside the Main Control Room," Revisions 339 and 340.
- (2) Performed a walkdown inspection of Fire Area 16, "Division I Remote Shutdown Room and General Area," including the remote shutdown panel area to identify equipment alignment discrepancies. The team inspected for deficient conditions such as corrosion, missing fasteners, cracks, broken indication devices and degraded insulation.
- (3) Reviewed open fire protection impairments for fire-rated assemblies and the remote shutdown panel equipment, including any temporary modifications, operator workarounds, or compensatory measures.

### Fire Protection Program Administrative Controls (IP Section 03.02) (2 Samples)

The inspectors verified that the selected control or process was implemented in accordance with the licensee's current licensing basis. The inspectors ensured that the licensee's FPP contained adequate procedures to implement the selected administrative control, and verified that the selected administrative control meets the requirements of all committed industry standards.

- (1) Control of fire impairments and compensatory measures.
- (2) Fire brigade training program and fire protection program mutual aid agreements met requirements and readiness of the licensee to combat fires.

Fire Protection Program Changes/Modifications (IP Section 03.03) (2 Samples)

- (1) EC 84754 - Fire Detection System Upgrade – Phase 1
- (2) LBDCR 2021-13 - Elimination of Unit Shutdown Actions from the Technical Requirements Manual

The inspectors verified the following:

- a. Changes to the approved FPP do not constitute an adverse effect on the ability to safely shutdown.
- b. The adequacy of the design modification, if applicable.
- c. Assumptions and performance capability stated in the SSA have not been degraded through changes or modifications.
- d. The FPP documents, such as the Updated Final Safety Analysis Report, FHA, and SSA were updated consistent with the FPP or design change.
- e. Post-fire SSD operating procedures, such as abnormal operating procedures, affected by the modification were updated.

**INSPECTION RESULTS**

Failure to Obtain Prior Approval for a Change Which Adversely Affected the Approved Fire Protection Program			
Cornerstone	Significance/Severity	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green Severity Level IV NCV 05000458/2022010-01 Open/Closed	[H.8] - Procedure Adherence	71111.21N.05
<p>The inspectors identified a Green finding and associated Severity Level IV Non-cited violation (NCV) of License Condition 2.C(10), "Fire Protection (Section 9.5.1, SER and SSER 3)," when the licensee made a change to their approved FPP after inappropriately categorizing the impact of the change as negligible. Specifically, the licensee made a change to their Technical Requirements Manual (TRM) that removed a previously approved shutdown action for a condition in which the fire suppression water system was nonfunctional after they inappropriately categorized the change under their impact analysis procedure. This change had an adverse affect on the ability to achieve and maintain safe shutdown in the event of a fire and would have required NRC review and/or approval prior to implementation.</p> <p><u>Description:</u> During the triennial fire protection inspection the team, in consultation with the resident inspectors, selected and reviewed a recent licensing basis document change which removed the previously approved shutdown action from their TRM for multiple systems including their fire water suppression system.</p> <p>The licensee screened the change to the fire water suppression system requirements using Entergy Procedure EN-DC-128, "Fire Protection Impact Reviews," Revision 14, which is their procedure for evaluating potential impacts to the approved fire protection program. The licensee screened the removal of the shutdown action for nonfunctional fire suppression water system using Attachment 9.1, "APPENDIX R OR BTP 9.5-1 FIRE PROTECTION PROGRAM REVIEW," and correctly identified that the proposed change affected administrative elements of the fire protection program. Answering YES to this screening question directed the screener to decide if the activity results in a change to the FPP where</p>			

the impact is more than negligible. Page 19, section (i) of the procedure clearly defines “negligible effect/impact” as “the condition where impact (on the Fire Protection Program) or the uncertainties in determining whether a change has occurred are so small that it cannot be reasonably concluded that the condition actually changed.” The procedure also states, in part, that if there is a change to the Fire Protection Program where the impact is more than negligible a detailed review is required. The procedure’s detailed review form, Attachment 9.2, “DETAILED APPENDIX R OR BTP 9.5-1 FIRE PROTECTION PROGRAM REVIEW – FIRE PROTECTION,” specifically questions if the proposed activity impacts any portion of a fire detection, fire suppression, or fire resistive building feature, and further asks if the activity adversely affects the ability to achieve and maintain safe shutdown. If the answer to either questions was YES, then the procedure states that the activity cannot be performed, or regulatory review is required.

The inspectors questioned the licensee’s decision to declare the change as negligible and exit the procedure without performing a more detailed review. The licensee explained that this change was documented in the RBS Process Applicability Determination (PAD) form for the LBDCR 2021-13, “Elimination of Unit Shut down Actions from the Technical Requirements Manual.” The LBDCR described the proposed changes, in part, as eliminating TRM Actions that require a plant shutdown. The LBDCR also noted that the affected TRM Actions will require creation of a Condition Report in accordance with the Corrective Action Program. The Condition Report would then be used to determine the appropriate actions, in lieu of performing the previously approved shutdown activities. The LBDCR documented changes to six TR Actions, including TR 3.7.9.1 Fire Suppression Systems, Required Actions D.1 and D.2.

For the change to TR 3.7.9.1, the LBDCR noted that the EN-DC-128 evaluation concluded that the change to the FPP was acceptable, and a License Amendment was not required. The LBDCR further noted that “Section 9.5.1.5 “Fire Detection and Suppression” in both the SER dated May 1984 and Supplement 3 dated August 1985 address the NRC evaluation of the fire protection program for acceptability, and changes to the fire protection program, as implemented in this change, do not have an adverse effect on the NRC evaluation or FSAR,” and noted that “These changes are also acceptable because they do not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.” The inspectors disagreed with this conclusion, noting that a lack of fire suppression during a fire could severely impact Operations ability to achieve and maintain safe shutdown conditions.

The inspectors noted that the licensee’s LBDCR screening also referenced Generic Letter 88-12, “Removal of Fire Protection Requirements from Technical Specifications” as supporting the removal of the fire suppression system shutdown action requirement. The inspectors questioned this rationale and noted that Page 2 of Enclosure 1 to GL 88-12 states, in part, that “...all operational conditions, remedial actions, and test requirements presently included in the TS for these systems shall be incorporated into the Fire Protection Program. In this manner, the former TS requirements will become an integral part of the Fire Protection Program and changes subsequent to this amendment will be subject to the standard license condition. These remedial actions include shutdowns when an LCO and its associated Action Requirements cannot be met. An example of such a requirement is the shutdown required for the loss of the fire suppression water system and failure to establish a backup water supply within 24 hours.”



The enclosure also notes "...the shutdown requirement applies because a failure to establish a backup water supply within 24 hours after a loss of fire suppression water system is an example of a Fire Protection Program requirement that would be subject to the license condition and could be changed in accordance with the standard license condition. However, the staff believes that any change to the shutdown requirement would also require the implementation of extraordinary compensatory measures. Absent such extraordinary measures, changes to the requirement are likely to have an adverse effect on the ability to achieve and maintain safe shutdown in the event of a fire, and therefore, could not be made without prior Commission approval."

The inspectors discussed this content with the licensee and noted a disagreement over the meaning of "extraordinary compensatory measures." Licensee staff noted they had implemented "extraordinary compensatory measures" in part by implementing an Engineering Change which they explained could be used to justify the nonavailability of fire suppression systems for the time necessary to implement the measures, thus meeting the condition described in Generic Letter 88-12 and supporting the removal of the shutdown condition from the TRM. The licensee had modified the fire water system configuration to allow a backup pumping source to be connected to their system, aligning the fire water tanks as a suction source and discharging to the plant fire water system. The licensee had established a contract with the West Feliciana Parish fire department to provide additional fire water pumping capacity in the event RBS had inadequate pumping capacity due to inoperable station fire pumps. Further discussion with the licensee noted they considered this modification to their fire protection system coupled with the use of offsite pumping capacity to satisfy the "extraordinary compensatory measure" described in the generic letter.

The inspectors engaged the Office of Nuclear Reactor Regulation (NRR) fire protection technical staff for additional insight related to the guidance in Generic Letter 88-12 and the licensee's removal of the shutdown condition. Discussions with NRR technical staff noted that the licensee's modification to the fire water system coupled with the contracted offsite pumping source would not be considered as compensatory measures because they were required to have offsite support agreements in place as part of the fire protection program, and that the reliability and capability of non-RBS equipment would not satisfy licensing basis requirements for station fire protection equipment. Further, discussions with NRR technical staff concluded that the removal of the previously approved shutdown actions from a fire protection program requirement would have an adverse effect on the ability to achieve and maintain shutdown in the event of a fire and would require NRC review prior to implementation.

License Condition 2.C(10) states, in part, that the licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire. As a result, the inspectors concluded that the impact evaluation activity removing the shutdown actions did not maintain in effect all provisions of the approved FPP. Specifically, the basis for the change lacked supporting details and documents to justify the conclusion. The inspectors also considered the impact of the change as it would pertain to the suppression system availability/reliability and extraordinary compensatory measures. The inspectors determined that the licensee failed to evaluate and discuss these two areas in the impact evaluations which could have resulted in additional analysis and a different conclusion.

**Corrective Actions:** The licensee entered this performance deficiency into their correction action program and as an immediate short-term corrective action implemented Standing Order 369 that directed Operations to implement the previously approved reactor shutdown activities for TR 3.7.9.1 until the previous version can be reinstated. This action will restore the removed shutdown action requirement.

**Corrective Action References:** The finding was entered into the licensee's corrective action program as Condition Reports CR-RBS-2022-6028 and CR-RBS-2022-6354.

Performance Assessment:

**Performance Deficiency:** The removal of a previously approved shutdown action from the technical requirements manual for a condition in which the fire suppression water system was nonfunctional is a performance deficiency. Specifically, the licensee made a change to their Technical Requirements Manual (TRM) that removed a previously approved shutdown action for a condition in which the fire suppression water system was nonfunctional. This change had an adverse affect on the ability to achieve and maintain safe shutdown in the event of a fire and would require NRC review and/or approval prior to implementation.

**Screening:** The inspectors determined the performance deficiency was more than minor because it was associated with the Protection Against External Factors attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined the performance deficiency was more than minor because it was associated with the Protection Against External Factors (Fire) attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the removal of the shutdown requirements upon loss of all fire water suppression would severely challenge the capability to achieve shutdown of the plant in the event of a fire.

**Significance:** The inspectors assessed the significance of the finding using IMC 0609 Appendix F, "Fire Protection and Post - Fire Safe Shutdown SDP." The inspectors assessed the finding using Inspection Manual Chapter 0609, Attachment 04, "Initial Characterization of Findings" and determined the finding was associated with the Mitigating Systems cornerstone. The inspectors further assessed the finding significance using Appendix F, "Fire Protection Significance Determination Process," and Appendix F, Attachments 1 and 2. The inspectors determined the finding was associated with the Fire Water Supply fire finding category because gaseous suppression systems and portable extinguishers would be unaffected. The inspectors used Step 1.4.2, "Fire Water Supply" to determine that the finding was of very low safety significance (Green) because of the recently implemented engineering change to the fire main system designed to allow the use of backup pumping sources using the onsite fire water supply. This added capability would allow the licensee to establish a backup fire suppression water system as required by the TRM and could be accomplished within 24 hours.

Since the associated ROP aspect screened as more than minor and very low safety significance (Green) this violation is characterized as a SL-IV.

**Cross-Cutting Aspect:** H.8 - Procedure Adherence: Individuals follow processes, procedures, and work instructions. Specifically, the change to the fire protection program resulted in a

program that did not ensure the ability to achieve safe shutdown conditions and maintain those conditions in the event of a fire.

Enforcement: The ROP's significance determination process does not specifically consider the regulatory process impact in its assessment of licensee performance. Therefore, it is necessary to address this violation which impedes the NRC's ability to regulate using traditional enforcement to adequately deter non-compliance.

Severity: The finding was determined to be a Severity Level IV violation using the NRC Enforcement Policy dated January 14, 2022, Section 2.2.1.c "Failures to receive prior NRC approval for changes in licensed activities, when required," and similarity to Section 6.1.d.2 for SL IV violations for "Violations of 10 CFR 50.59 result in conditions evaluated as having very low safety significance (i.e., green) by the SDP." Licensees have a similar process to 10 CFR 50.59 for making changes to their approved fire protection program.

Violation: License Condition 2.C(10) states, in part, that EOI shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility, and as approved in the SER dated May 1984 and Supplement 3 dated August 1985 subject to the following provision: The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

Contrary to the above, from January 13, 2022, to November 2, 2022, the licensee failed to implement and maintain in effect all provisions of the approved FPP. Specifically, the removal of a previously approved shutdown action from the technical requirements manual for a condition in which the fire suppression water system was nonfunctional adversely affected the ability to achieve and maintain safe shutdown in the event of a fire.

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

Unresolved Item (Open)	Functional Testing of Fire-rated Dampers URI 05000458/2022010-02	71111.21 N.05
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Description: The inspectors have opened an Unresolved Item (URI) because the requirements for functional testing of fire-rated dampers in the licensing basis (as described by the licensee) do not appear to provide reasonable assurance these devices will remain functional at all times. This condition may exist as a generic issue. Additional information is needed to determine if a performance deficiency exists.

During the review of work orders associated with fire protection program Technical Requirement Manual (TRM) surveillances the inspectors noted that there were no functional tests being performed for fire-rated dampers. The licensee's fire protection staff explained that historically the NRC had required only visual inspections of dampers at RBS and this visual inspection-only requirement was a carry-over from before Entergy changed the RBS technical specifications (TS) to Improved BWR-6 Technical Specifications (NUREG-1434) under license amendment 81 in July 1995. The licensee contends that functional testing of fire dampers has never been part of the RBS licensing basis and the station is in compliance with the functional testing provisions of Technical Requirements Manual Surveillance Requirement (TSR) based, in part, on the historical TS requirements for visual examinations only.

The inspectors requested a copy of the TRM that resulted from the migration of the fire-rated assembly limited condition of operation (LCO) and surveillances. The licensee provided a copy of Revision 5 for TR 3.7.9.6, "Fire-Rated Assemblies," which clearly state, as part of TLCO 3.7.9.6 that all fire barrier assemblies shall be OPERABLE. The TLCO noted that fire barrier assemblies include fire dampers and that this TLCO was applicable at all times. The TLCO included nine TSRs with specific testing requirements for fire doors with automatic hold-open and release mechanisms, as well as visual inspection requirements for exposed surfaces of each fire rated assembly. The TSRs also included a specific visual inspection of each fire damper and associated hardware. The inspectors noted that in addition to these surveillance requirements, TSR 3.7.9.6.9 required performance of a functional test of fire-rated assemblies with automatic hold-open, release and closing mechanisms and latches every 18 months.

The inspectors compared the provided revision 5 of these requirements to the current revision 158 and noted they were essentially identical except for some periodicity requirement differences. Neither revision of the TSR specify to which specific fire-rated assemblies TSR 3.7.9.6.9 applies.

The inspectors requested a copy of the pre-License Amendment 81 TS to make a comparison with historical testing requirements for fire-rated assemblies. The licensee provided copies of the approved License Amendment 81 and accompanying Safety Evaluation Report related to the amendment as well as a copy of their license amendment request LAR 93-14, Revision 2, which implemented the amendment. The safety evaluation notes, in part, that the requirements for "Fire-Rated Assemblies," are relocated to the USAR and TS Bases. Relocating the details of these existing TS conforms to staff guidance in Generic Letter 86-10, "Implementation of Fire Protection Requirements" and Generic Letter 88-12, "Removal of Fire Protection Requirements from Technical Specifications" for removing unnecessary fire protection TS in four major areas: fire detection systems, fire suppression systems, fire barriers and fire brigade staffing requirements. The license amendment request included LCO TSRs for fire-rated assemblies included in the Improved Technical Specification template under section 3/4.7.7. The LCO states, in part, that all fire barrier assemblies shall be OPERABLE, and that the assemblies include fire dampers. The associated surveillance requirements under section 4.7.7.1 stated, in part, that required fire-rated assemblies shall be verified OPERABLE at least once per 18 months by performing a visual inspection. Surveillance requirement 4.7.7.2 stated, in part, that required fire doors shall be verified OPERABLE by inspection the automatic hold-open, release and closing mechanism and latches at least once per 6 months.

The inspectors noted the similarity in requirements between the historical technical specification surveillances and the TSRs. The inspectors also noted that over the 28-year period, numerous changes had been made to the TRM requirements such that the requirements were no longer exact matches.

Because of the original TS requirements and the licensee's position that visual examinations satisfied the functional testing requirements for fire dampers, the inspectors engaged with Office of Nuclear Reactor Regulation (NRR) fire protection technical staff to develop an understanding of the licensing bases for the functional testing of the fire dampers, and to determine if a visual examination was an acceptable substitute for functional testing. The NRR staff noted that the RBS fire protection licensing basis safety evaluation report, NUREG-0989, "Safety Evaluation Report related to the operation of River Bend Station," May 1984,

Section 9.5.1.4, "General Plant Guidelines," page-9-40, stated, in part, that the heating, ventilation, and air conditioning penetrations of fire-rated barriers are provided with UL-labeled fire damper assemblies that have ratings commensurate with the fire ratings of the walls in which they are installed. The report concluded that fire dampers were installed according to the manufacturer's directions and on the basis of its evaluation, the fire dampers were provided in accordance with BTP CMEB 9.5-1, Section C.5.a, and were, therefore, acceptable. As part of the manufacturer's directions for the RBS fire dampers, "Q020-0100, Quality Air Design Service Manual For Fire Dampers," maintenance activities were included which directed an annual functional test which would exercise the dampers. The licensee does not perform this part of the manufacturer's recommended testing.

The inspectors reviewed generic NRC communications addressing fire damper issues. NRC Information Notice (IN) 89-12, "Potential fire Damper Operational problems," recognized and documented operating experience associated with fire damper operational failures and offered guidelines for performing acceptable testing of fire dampers to ensure dampers will be capable of performing their intended functions as required for those systems and components important to safe shutdown. The notice also states "Licensees who have adequately addressed this issue have either (1) type tested "worse-case" air flow conditions of plant-specific fire damper configurations; (2) tested all dampers installed in required fire barriers; or (3) administratively shut down the ventilation systems to an area upon confirmation of a fire. The inspectors questioned the licensee about their review and implementation of the information in the IN. The licensee provided excerpts from procedures indicating that Operations staff should consider stopping ventilation in the event of a fire, but the information was guidance and not requirement.

NRR staff noted that industry guidance EPRI Report, TR-112170, "HVAC Fans and Dampers Maintenance Guide," recommends that dampers be typically tested for timed actuation response. The guidance also notes that dampers should be tested for ease of operation, and if the operation is not smooth, further investigation into other potential problems is necessary. The licensee was aware of this guidance.

After additional discussions with NRR fire protection technical staff and questions involving damper functional testing throughout the industry the Inspectors determined that a URI existed, and further clarification was necessary to determine if licensees are required to perform functional testing of fire-rated damper assemblies when historical NRC requirements did not include specific functional testing endorsements or requirements.

Planned Closure Actions: Additional information is needed from NRR fire protection staff to determine if the historical requirements for a visual examination, performed in lieu of functional testing provide reasonable assurance that fire-rated dampers will remain functional at all times as required by the licensing basis.

Licensee Actions: This issue has been entered into the licensee's corrective action program as CR-RBS-2022-06030 to note the concern that other sites perform functional test in addition to visual inspections. The licensee also documented in CR-RBS-2022-06356 that during the NRC Fire Protection Inspection exit meeting that the NRC originally proposed this issue as an NRC identified non-cited violation of Operating Licensing Condition 2.C.(10) for the failure to ensure defined fire rated assemblies will remain functional at all times as required by the Fire Protection Program.

Corrective Action References: CR-RBS-2022-06030 and CR-RBS-2022-06356

## **EXIT MEETINGS AND DEBRIEFS**

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

- On November 3, 2022, the inspectors presented the triennial fire protection inspection results to Mr. Bruce Chenard, General Manager - Plant Operations and other members of the licensee staff.

## DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.21N.05	Corrective Action Documents	CR-RBS-	2021-04365, 2021-06648, 2019-03671, WT-WTRBS-2022-0009, WT-WTHQN-2022-0015, 2017-04696, 2022-00400, 2022-00404, 2022-00460, WT-WTHQN-2022-00153, WT-WTRBS-2022-00099, 2021-03499, 2022-01142, 2022-04339, 2022-04481	
71111.21N.05	Corrective Action Documents Resulting from Inspection	CR-RBS-2022-	04085, 05978, 05982, 05991, 05995, 05996, 06014, 06030, 05978, 06354, 06356, 06357	
71111.21N.05	Drawings	0214.400-273-196	Sprinkler System AS-6B Partial Plan El. 98'-0" Control Bldg	C
71111.21N.05	Drawings	DD 5617-1, Sh. 2 (Cat. 1)	Fire Damper Schedule	U
71111.21N.05	Drawings	DD 5617-1, Sh. 3	Fire Damper Schedule	U
71111.21N.05	Drawings	EB-003AC	Fire Area Boundaries Plant Plan View Elevations 83'-0" to 106'-0"	6
71111.21N.05	Drawings	EB-003BC	Fire Protection Features Plant Plan View Elevations 83'-0" to 106'-0"	5
71111.21N.05	Drawings	PID-15-018	Engineering P & I Diagram System 251 Fire Protection - Water & Engine Pump	16
71111.21N.05	Drawings	PID-15-01C	Engineering P & I Diagram System 251 Fire Protection WTR & Eng Pump	14
71111.21N.05	Engineering Changes	0000014262	Evaluation of Long-Term Scaffold	00
71111.21N.05	Engineering Changes	0000020041	Evaluation Of Long-Term Scaffold in Auxiliary, Reactor, Fuel and Radwaste Buildings.	000
71111.21N.05	Engineering Changes	0000024385	Designated Storage Areas in seismic and Non-Seismic Buildings Outside RCS (LO-WTRBS-2010-00215 CA 6)	000
71111.21N.05	Engineering	0000064599	BACKUP FPW CONNECTIONS	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Changes			
71111.21N.05	Engineering Changes	240.201A Appendix C Table C-1	River Bend Appendix R Component Safe Shutdown Equipment List	6
71111.21N.05	Engineering Changes	72360	Replacement relays for the existing Safety Related Gould J11-Series with MDR Series Rotary Relays	0
71111.21N.05	Engineering Evaluations	240.201A	Post-Fire Safe Shutdown Analysis	6
71111.21N.05	Engineering Evaluations	SEA-95-001	Individual Plant Examination of External Plants (IPEEE)	0
71111.21N.05	Fire Plans	CB-098-120	CABLE TRAY AREA AND STAIRWAY #3 FIRE AREA C-16 AND C-29	3
71111.21N.05	Miscellaneous		Letter Of Agreement Between Entergy Operations, Inc. River Bend Station And The Fire Protection District #1 Of West Feliciana Parish, Louisiana	08/18/2020
71111.21N.05	Miscellaneous		Fire Brigade SCBA Training Roster	
71111.21N.05	Miscellaneous		Fire Brigade Required By Training Matrix	
71111.21N.05	Miscellaneous		Fire Impairment Log	07/13/2022
71111.21N.05	Miscellaneous	VTD-0020-0100	Vendor Manual Quality Air Design Services Manual for Fire Dampers [PUB.# IOM 5617-1 ].	0 or 11/7/95
71111.21N.05	Miscellaneous	1Q-2022	Program Health Report - Fire Protection	5/2/2022
71111.21N.05	Miscellaneous	214.400	Specification for Water Spray and Sprinkler Fire Protection System	3
71111.21N.05	Miscellaneous	4Q2021	Fire Protection Health Report	2/2/2022
71111.21N.05	Miscellaneous	Contract Number: 10661990	Entergy Systemwide Multipurpose Maintenance, Modification And Construction Stand-Alone Contract	02/07/2022
71111.21N.05	Miscellaneous	EEAR-89-0167	Engineering Evaluation of NRC IN Notice 89-52	7/5/89
71111.21N.05	Miscellaneous	EN-EE-S-040-R	Replacement of Safety Related J11-Series 120 Vac (Permanent Magnet Latching Relays) with TE Connectivity MDR Relays	00
71111.21N.05	Miscellaneous	ER-RB-2004-0275-000	Summarize all RBS NFPA Code Deviations	05/20/2004
71111.21N.05	Miscellaneous	IMS Item 41	41 - Guidance to secure ventilation	N/A



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71111.21N.05	Miscellaneous	ITS LAR	Excerpt from RBS Amendment Request to transition RBS Technical Specifications (TS) to Standard Tech Specs (STS)	10/1/1993
71111.21N.05	Miscellaneous	NFPA 90A	Standard for the Installation of Air conditioning and Ventilating Systems,1993 Edition	1993
71111.21N.05	Miscellaneous	NFPA 90A	Installation Of Air Conditioning and Ventilating System,1974	1974
71111.21N.05	Miscellaneous	NUREG-0989	Safety Evaluation Report, related to the operation of River Bend Station	5/1984
71111.21N.05	Miscellaneous	PO 10641405	RBS Fire Detection System Replacement Project	005
71111.21N.05	Miscellaneous	RBS SE TS Amendment 81	Excerpt from Amendment 81 NRC SE - RBS to ITS Safety Eval.	N/A
71111.21N.05	Miscellaneous	RBS White Paper	River Bend Station Fire Damper Testing White Paper	N/A
71111.21N.05	Miscellaneous	RBS-SA-18-00001	River Bend Station Time Critical Actions	2
71111.21N.05	Miscellaneous	RLP-FB-FBL-023	Training Presentation - Fire Brigade Leader Strategy and Tactics	001
71111.21N.05	Miscellaneous	RLP-FB-FBL020	Training Presentation - Fire Command Introduction	000
71111.21N.05	Miscellaneous	RLP-FB-FT003	Training Presentation - Pre-Fire Strategy	002
71111.21N.05	Miscellaneous	RLP-FB-FT032	Training Presentation - Structural Fire Fighting Protective Clothing	004
71111.21N.05	Miscellaneous	RLP-LO-STM-0200	Training Presentation - Remote Shutdown System	000
71111.21N.05	Miscellaneous	RLP-OPS-AOP0031	Training - Shutdown From Outside The Main Control Room	4
71111.21N.05	Miscellaneous	RSMS.OPS.0448	Simulator Training - Fire in the MCR Requiring Plant Shutdown and Control Room Evacuation	009
71111.21N.05	Miscellaneous	RWKT-NLOR-AOP31-22-05	AOP-0031 Tasks	0
71111.21N.05	Miscellaneous	SO369	Standard Order #369	0
71111.21N.05	Miscellaneous	T500-0102	New Manual for TE Connectivity MDR Series Rotary	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Relays	
71111.21N.05	Miscellaneous	T500-0102	Vendor Manual for MDR Series Rotary Relays	0
71111.21N.05	Miscellaneous	TRM	Technical Requirement Manual	164
71111.21N.05	Miscellaneous	USAR 9.5.1	Fire Protection System	27
71111.21N.05	Miscellaneous	USAR Section 9A.1	Fire Hazards Analysis	27
71111.21N.05	Procedures	240.201A	Post-Fire Safe Shutdown Analysis	06
71111.21N.05	Procedures	AOP-0031	Shutdown From Outside the Main Control Room	340
71111.21N.05	Procedures	AOP-0031	Shutdown From Outside The Main Control Room	339
71111.21N.05	Procedures	EN-DC-128	Fire Protection Impact Reviews	14
71111.21N.05	Procedures	EN-DC-161	Control of Combustibles	24
71111.21N.05	Procedures	EN-DC-330	Fire Protection Program	9
71111.21N.05	Procedures	EN-MA-133	Control of Scaffolding	025
71111.21N.05	Procedures	EN-OP-123	Time Critical Action Program Standard	6
71111.21N.05	Procedures	EN-OP-139	Fire Watch Program	006
71111.21N.05	Procedures	FPP-0101	Fire Suppression System Inspection	18
71111.21N.05	Procedures	FPP-0108	Fire Door Inspection	002
71111.21N.05	Procedures	FPP-4514	Spray & Sprinkler Water Flow And Automatic Valve Actuation Tests	008
71111.21N.05	Procedures	MCP-1018	Testing of Allen Bradley ITE J, AND MDR Series Auxiliary Relays	17
71111.21N.05	Procedures	OSP-0053	Emergency and Transient Response Support Procedure	053
71111.21N.05	Procedures	RBNP-001	Development, Control and Maintenance of RBS Procedures	050
71111.21N.05	Procedures	RBNP-001	Development, Control and Maintenance of RBS Procedures	051
71111.21N.05	Procedures	SEP-FPP-RBS-001	Fire Protection System Program	008
71111.21N.05	Procedures	SEP-FPP-RBS-006	Fire Protection System Impairment	005
71111.21N.05	Procedures	SOP-0027	Remote Shutdown System #200	308
71111.21N.05	Procedures	SOP-0037	Fire Protection Water System Operating Procedure	44

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			(SYS#251)	
71111.21N.05	Procedures	STP-000-3603	NON-Divisional Online Fire Damper Visual Inspection	020
71111.21N.05	Procedures	STP-000-3605	Automatic Hold-Open Fire Door Functional Test	303
71111.21N.05	Procedures	STP-200-0608	Remote Shutdown System Control Circuit Operability Test (Switches 43-1Switches 6043-1SWPA05, 43-1SWPA08, 43-1SWPN15 AND 43-1HVRA21)	012
71111.21N.05	Self-Assessments	LO-RLO-2021-00041	RBS Fire Protection Self-Assessment – Control of Combustibles, Outage RF-21 Preparation	03/09/2021
71111.21N.05	Self-Assessments	LO-RLO-2021-00084	Pre- NRC Triennial Fire Protection Inspection Focused Self-Assessment	5/29/2022
71111.21N.05	Work Orders	WO-	00042062, 00107005, 00186393, 0474962, 00487734, 00490016, 00503220, 052765901, 52805278, 52805277, 52886273, 52804377, 52805276, 52872343, 52881731, 52884960, 52904392, 52941889, 52951539, 52982957, 53003135	