



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

December 28, 2022

Mr. Ron Gaston  
Vice President, Regulatory  
Assurance Licensing  
Entergy Services, LLC  
M-ECH-29  
1340 Echelon Parkway  
Jackson, MS 39213

SUBJECT: GRAND GULF NUCLEAR STATION, UNIT 1 AND RIVER BEND STATION,  
UNIT 1 – ISSUANCE OF AMENDMENTS RE: ADOPTION TSTF-580,  
“PROVIDE EXCEPTION FROM ENTERING MODE 4 WITH NO OPERABLE  
RHR SHUTDOWN COOLING,” REVISION 1 (EPID L-2022-LLA-0080)

Dear Mr. Gaston:

The U.S. Nuclear Regulatory Commission has issued amendments consisting of changes to the Technical Specifications (TSs) in response to your application dated May 26, 2022. The following amendments are enclosed:

- Amendment No. 232 to Renewed Facility Operating License No. NPF-29 for Grand Gulf Nuclear Station, Unit 1 (Grand Gulf);
- Amendment No. 212 to Renewed Facility Operating License No. NPF-47 for River Bend Station, Unit 1 (River Bend);

The amendments would revise Grand Gulf and River Bend TS 3.4.9, “Residual Heat Removal (RHR) Shutdown Cooling System – Hot Shutdown,” in accordance with Technical Specifications Task Force (TSTF) Traveler TSTF-580, Revision 1, “Provide Exception from Entering Mode 4 With No Operable RHR Shutdown Cooling.” Specifically, the proposed changes provide a TS exception to entering Mode 4 if both RHR shutdown cooling subsystems are inoperable.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's *Federal Register* notice.

Sincerely,

***/RA/***

Jason J. Drake, Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-416 and 50-458

Enclosures:

1. Amendment No. 232 to NPF-29
2. Amendment No. 212 to NPF-47
3. Safety Evaluation
4. Notices and Environmental Findings

cc: Listserv



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

ENERGY OPERATIONS, INC.

SYSTEM ENERGY RESOURCES, INC.

COOPERATIVE ENERGY, A MISSISSIPPI ELECTRIC COOPERATIVE

ENERGY MISSISSIPPI, LLC

DOCKET NO. 50-416

GRAND GULF NUCLEAR STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 232  
Renewed License No. NPF-29

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Entergy Operations, Inc. (the licensee), dated May 26, 2022, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-29 is hereby amended to read as follows:

- (2) Technical Specifications

- The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 232 are hereby incorporated into this renewed license. Entergy Operations, Inc. shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 90 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Jennifer L. Dixon-Herrity, Chief  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to Renewed Facility  
Operating License No. NPF-29 and  
the Technical Specifications

Date of Issuance: December 28, 2022

ATTACHMENT TO LICENSE AMENDMENT NO. 232

RENEWED FACILITY OPERATING LICENSE NO. NPF-29

GRAND GULF NUCLEAR STATION, UNIT 1

DOCKET NO. 50-416

Replace the following page of Renewed Facility Operating License No. NPF-29 and the Appendix A, Technical Specifications, with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Facility Operating License

REMOVE

-4-

INSERT

-4-

Technical Specifications

REMOVE

3.4-21

3.4-22

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INSERT

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3.4-22

3.4-22A

amended, are fully applicable to the lessors and any successors in interest to those lessors, as long as the renewed license of GGNS Unit 1 remains in effect.

- (b) SERI is required to notify the NRC in writing prior to any change in (i) the terms or conditions of any new or existing sale or lease agreements executed as part of the above authorized financial transactions, (ii) the GGNS Unit 1 operating agreement, (iii) the existing property insurance coverage for GGNS Unit 1 that would materially alter the representations and conditions set forth in the Staff's Safety Evaluation Report dated December 19, 1988 attached to Amendment No. 54. In addition, SERI is required to notify the NRC of any action by a lessor or other successor in interest to SERI that may have an effect on the operation of the facility.

- C. The renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

- (1) Maximum Power Level

Entergy Operations, Inc. is authorized to operate the facility at reactor core power levels not in excess of 4408 megawatts thermal (100 percent power) in accordance with the conditions specified herein.

- (2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 232 are hereby incorporated into this renewed license. Entergy Operations, Inc. shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

During Cycle 19, GGNS will conduct monitoring of the Oscillation Power Range Monitor (OPRM). During this time, the OPRM Upscale function (Function 2.f of Technical Specification Table 3.3.1.1-1) will be disabled and operated in an "indicate only" mode and technical specification requirements will not apply to this function. During such time, Backup Stability Protection measures will be implemented via GGNS procedures to provide an alternate method to detect and suppress reactor core thermal hydraulic instability oscillations. Once monitoring has been successfully completed, the OPRM Upscale function will be enabled and technical specification requirements will be applied to the function; no further operating with this function in an "indicate only" mode will be conducted.

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.9 Residual Heat Removal (RHR) Shutdown Cooling System — Hot Shutdown

LCO 3.4.9 Two RHR shutdown cooling subsystems shall be OPERABLE, and, with no recirculation pump in operation, at least one RHR shutdown cooling subsystem shall be in operation.

-----NOTES-----

1. Both RHR shutdown cooling subsystems and recirculation pumps may not be in operation for up to 2 hours per 8 hour period.
  2. One RHR shutdown cooling subsystem may be inoperable for up to 2 hours for performance of Surveillances.
- 

APPLICABILITY: MODE 3 with reactor steam dome pressure less than the RHR cut in permissive pressure.

ACTIONS

-----NOTE-----

Separate Condition entry is allowed for each RHR shutdown cooling subsystem.

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CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One RHR shutdown cooling subsystem inoperable.	A.1 Verify an alternate method of decay heat removal is available.	1 hour <u>AND</u> Once per 24 hours thereafter

(continued)

ACTIONS

CONDITION		REQUIRED ACTION	COMPLETION TIME
B.	Required Action and associated Completion Time of Condition A not met.	B.1 Initiate action to restore RHR shutdown cooling subsystem to OPERABLE status.	Immediately
C.	Two RHR shutdown cooling subsystems inoperable.	C.1 Verify an alternate method of decay heat removal is available for each inoperable RHR shutdown cooling subsystem.	1 hour <u>AND</u> Once per 24 hours thereafter
D.	Required Action and associated Completion Time of Condition C not met.	<p>-----NOTE-----                      LCO 3.0.3 and all other LCO Required Actions requiring a MODE change to MODE 4 may be suspended until one RHR shutdown cooling subsystem is restored to OPERABLE status.                      -----</p> <p>D.1 Initiate action to restore one RHR shutdown cooling subsystem to OPERABLE status.</p>	Immediately

(continued)



ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. No RHR shutdown cooling subsystem in operation.</p> <p><u>AND</u></p> <p>No recirculation pump in operation.</p>	<p>E.1 Initiate action to restore one RHR shutdown cooling subsystem or one recirculation pump to operation.</p>	<p>Immediately</p>
	<p><u>AND</u></p> <p>E.2 Verify reactor coolant circulation by an alternate method.</p>	<p>1 hour from discovery of no reactor coolant circulation</p> <p><u>AND</u></p> <p>Once per 12 hours thereafter</p>
	<p><u>AND</u></p> <p>E.3 Monitor reactor coolant temperature and pressure.</p>	<p>Once per hour</p>



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

ENTERGY LOUISIANA, LLC

AND

ENTERGY OPERATIONS, INC.

DOCKET NO. 50-458

RIVER BEND STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 212  
Renewed License No. NPF-47

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Entergy Operations, Inc. (EOI, the licensee), dated May 26, 2022, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-47 is hereby amended to read as follows:

- (2) Technical Specifications and Environmental Protection Plan

- The Technical Specifications contained in Appendix A, as revised through Amendment No. 212 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. EOI shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance and shall be implemented within 90 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Jennifer L. Dixon-Herrity, Chief  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to Renewed Facility Operating  
License No. NPF-47 and the  
Technical Specifications

Date of Issuance: December 28, 2022

ATTACHMENT TO LICENSE AMENDMENT NO. 212

RENEWED FACILITY OPERATING LICENSE NO. NPF-47

RIVER BEND STATION, UNIT 1

DOCKET NO. 50-458

Replace the following pages of Renewed Facility Operating License No. NPF-47 and the Appendix A, Technical Specifications, with the attached revised pages. The revised pages are identified by Amendment number and contain marginal lines indicating the areas of change.

Facility Operating License

Remove

-3-

Insert

-3-

Technical Specifications

Remove

3.4-22

3.4-23

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Insert

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3.4-23

3.4-23A

- (2) EOI, pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use and operate the facility at the above designated location in accordance with the procedures and limitations set forth in this renewed license;
- (3) EOI, pursuant to Section 103 of the Act and 10 CFR Part 70, to receive, possess and to use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (4) EOI, pursuant to Section 103 of the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (5) EOI, pursuant to Section 103 of the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (6) EOI, pursuant to Section 103 of the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- (7) EOI, pursuant to the Act and 10 CFR Part 30, 40, and 70 to receive, possess and use, in amounts as required, such byproduct and special nuclear materials as may be produced by the operation of Arkansas Nuclear One, Units 1 and 2, Grand Gulf Nuclear Station, Unit 1, River Bend Station, Unit 1, and Waterford Steam Electric Station, Unit 3, without restriction to chemical or physical form for the purposes of sample analysis, equipment calibration, or equipment repair.

C. This renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and the rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

EOI is authorized to operate the facility at reactor core power levels not in excess of 3091 megawatts thermal (100% rated power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 212 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. EOI shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.9 Residual Heat Removal (RHR) Shutdown Cooling System–Hot Shutdown

LCO 3.4.9 Two RHR shutdown cooling subsystems shall be OPERABLE, and, with no recirculation pump in operation, at least one RHR shutdown cooling subsystem shall be in operation.

-----NOTES-----

1. Both RHR shutdown cooling subsystems and recirculation pumps may be removed from operation for up to 2 hours per 8 hour period.
  2. One RHR shutdown cooling subsystem may be inoperable for up to 2 hours for performance of Surveillances.
- 

APPLICABILITY: MODE 3 with reactor steam dome pressure less than the RHR cut in permissive pressure.

ACTIONS

-----NOTE-----

Separate Condition entry is allowed for each RHR shutdown cooling subsystem.

-----

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One RHR shutdown cooling subsystem inoperable.	A.1 Verify an alternate method of decay heat removal is available.	1 hour <u>AND</u> Once per 24 hours thereafter

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required Action and associated Completion Time of Condition A not met.	B.1 Initiate action to restore RHR shutdown cooling subsystem to OPERABLE status.	Immediately
C. Two RHR shutdown cooling subsystems inoperable.	C.1 Verify an alternate method of decay heat removal is available for each inoperable RHR shutdown cooling subsystem.	1 hour <u>AND</u> Once per 24 hours thereafter
D. Required Action and associated Completion Time of Condition C not met.	<p>-----NOTE-----                      LCO 3.0.3 and all other LCO Required Actions requiring a MODE change to MODE 4 may be suspended until one RHR shutdown cooling subsystem is restored to OPERABLE status.                      -----</p> <p>D.1 Initiate action to restore one RHR shutdown cooling subsystem to OPERABLE status.</p>	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. No RHR shutdown cooling subsystem in operation.</p> <p><u>AND</u></p> <p>No recirculation pump in operation.</p>	<p>E.1 Initiate action to restore one RHR shutdown cooling subsystem or one recirculation pump to operation.</p> <p><u>AND</u></p>	<p>Immediately</p>
	<p>E.2 Verify reactor coolant circulation by an alternate method.</p> <p><u>AND</u></p>	<p>1 hour from discovery of no reactor coolant circulation</p> <p><u>AND</u></p> <p>Once per 12 hours thereafter</p>
	<p>E.3 Monitor reactor coolant temperature and pressure.</p>	<p>Once per hour</p>





**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO  
AMENDMENT NO. 232 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-29  
AND AMENDMENT NO. 212 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-47  
ENTERGY OPERATIONS, INC.  
GRAND GULF NUCLEAR STATION, UNIT 1  
RIVER BEND STATION, UNIT 1  
DOCKET NOS. 50-416 AND 50-458

<u>Application (i.e., initial and supplements)</u> <ul style="list-style-type: none"> <li>• May 26, 2022, ML22146A189</li> </ul>	<u>Safety Evaluation Date</u> December 28, 2022 <hr/> <u>Principal Contributors to Safety Evaluation</u> <ul style="list-style-type: none"> <li>• Ravi Grover, NRR/DSS/STSB</li> </ul>
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1.0 PROPOSED CHANGES

Entergy Operations, Inc. (Entergy, the licensee) requested changes to the technical specifications (TSs) for Grand Gulf Nuclear Station, Unit 1 (Grand Gulf) and River Bend Station, Unit 1 (River Bend) by license amendment request (LAR, application) dated May 26, 2022. In its application, the licensee requested that the U.S. Nuclear Regulatory Commission (NRC, the Commission) process the proposed amendments under the Consolidated Line Item Improvement Process (CLIIP). The proposed changes would revise the “Residual Heat Removal (RHR) Shutdown Cooling System – Hot Shutdown,” TS based on Technical Specifications Task Force (TSTF) Traveler TSTF-580, Revision 1, “Provide Exception from Entering Mode 4 With No Operable RHR Shutdown Cooling” (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21025A232), and the associated NRC staff safety evaluation (SE) for TSTF-580 (ML21188A227).

Irradiated fuel in the shutdown reactor core generates heat during the decay of fission products and increases the temperature of the reactor coolant. This decay heat must be removed to reduce the temperature of the reactor coolant to less than or equal to 212 degrees Fahrenheit. This decay heat is removed by the RHR shutdown cooling system in preparation for performing refueling or maintenance operations, or for keeping the reactor in the hot shutdown condition or cold shutdown condition.

The reactor coolant system design for Grand Gulf and River Bend consists of two redundant, manually controlled shutdown cooling subsystems of the RHR system to provide decay heat removal. Each loop consists of motor-driven pumps, a heat exchanger, and associated piping

and valves. The RHR heat exchangers transfer heat to the RHR service water system. Some piping and heat exchangers that are passive components may be common to both subsystems.

The Grand Gulf and River Bend TS 3.4.9, "Residual Heat Removal (RHR) Shutdown Cooling System – Hot Shutdown," is applicable in Mode 3, with the reactor steam dome pressure less than the RHR shutdown cooling isolation pressure. The limiting condition for operation (LCO) requires two operable RHR shutdown cooling subsystems and, if no recirculation pump is in operation, then at least one RHR shutdown cooling subsystem needs to be in operation.

### 1.1 Proposed TS Changes to Adopt TSTF-580

In accordance with NRC staff approved TSTF-580, the licensee proposed changes that would revise TS 3.4.9, for Grand Gulf and River Bend. Specifically, the licensee proposed the following changes to adopt TSTF-580:

- Condition A is changed to be limited to a single inoperable subsystem by revising it to state: "One RHR shutdown cooling subsystem inoperable" with a Required Action to "Verify an alternate method of decay heat removal is available."
- Condition B addresses situations when Required Action A.1 and associated completion time (CT) are not met. The plural "(s)" is deleted in Required Action B.1 as a conforming change to Condition A, which now addresses a single inoperable RHR shutdown cooling subsystem.
- A new Condition C is added, which addresses two RHR shutdown cooling subsystems inoperable with a Required Action C.1 to verify an alternate method of decay heat removal is available for each inoperable RHR shutdown cooling subsystem. The new Condition C Required Action has a CT of 1 hour and once per 24 hours thereafter.
- A new Condition D is added to address situations when new Required Action C.1 and associated CT are not met. New Required Action D.1 requires action be initiated to restore one RHR shutdown cooling subsystem to operable status immediately. Required Action D.1 is modified by a note that states that LCO 3.0.3 and all other LCO Required Actions requiring a mode change to Mode 4 may be suspended until one RHR shutdown cooling subsystem is restored to operable status.
- Existing Condition C and associated Required Actions are renumbered as Condition E due to the new Conditions C and D.

### 1.2 Additional Proposed TS Changes

The application states that Entergy is not proposing any variations from the TS changes described in TSTF-580 or the applicable parts of the NRC SE dated July 11, 2021.

## 2.0 REGULATORY EVALUATION

The regulation at paragraph 50.36(c)(2) of Title 10 of the *Code of Federal Regulations* (10 CFR) requires that TSs include LCOs. Per 10 CFR 50.36(c)(2)(i), LCOs "are the lowest functional capability or performance levels of equipment required for safe operation of the facility." The regulation also requires that when an LCO of a nuclear reactor is not met, the licensee shall

shut down the reactor or follow any remedial action permitted by the TSs until the condition can be met.

The NRC staff's guidance for the review of TSs is in Chapter 16.0, "Technical Specifications," of NUREG-0800, Revision 3, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR [Light-Water Reactor] Edition" (SRP), March 2010 (ADAMS Accession No. ML100351425). As described therein, as part of the regulatory standardization effort, the NRC staff has prepared Standard TSs (STs) for each of the LWR nuclear designs. Accordingly, the NRC staff's review includes consideration of whether the proposed changes are consistent with the STs, as modified by NRC approved travelers.

Traveler TSTF-580 revised the STs related to RHR shutdown cooling system. The NRC approved TSTF-580 under the CLIIP on July 11, 2021 (ADAMS Package Accession No. ML21188A283).

### 3.0 TECHNICAL EVALUATION

#### 3.1 Proposed TS Changes to Adopt TSTF-580

The NRC staff compared the licensee's proposed TS changes in section 1.1 of this SE against the changes approved in TSTF-580. In accordance with the SRP, chapter 16.0, the NRC staff determined that the STS changes approved in TSTF-580 are applicable because the Grand Gulf and River Bend units are boiling-water reactor (BWR) design plants, and the NRC staff approved the TSTF-580 changes for BWR designs. The NRC staff finds that the licensee's proposed changes to the Grand Gulf and River Bend TSs in section 1.1 of this SE are consistent with those found acceptable in TSTF-580.

In the SE of TSTF-580, the NRC staff concluded that TSTF-580 changes to STS 3.4.9, "Residual Heat Removal (RHR) Shutdown Cooling System – Hot Shutdown," Condition A, Required Actions A.1 and B.1, and new Condition C, Required Action C.1 and associated CTs were acceptable because these changes preserve the existing requirements and do not alter the way the TSs are implemented. Therefore, the NRC staff finds these continue to meet the requirements of 10 CFR 50.36(c)(2)(i) by providing remedial actions for when the LCO is not met.

The NRC staff also concluded that the TSTF-580 proposed addition of new Condition D to STS 3.4.9 is acceptable, because, without an operable RHR shutdown cooling subsystem and in a period of high decay heat load, it may not be possible to reduce the RCS temperature to the Mode 4 entry condition within the CT. Under this condition, remaining in Mode 3 allows fission product decay heat and other residual heat from the reactor core to be transferred at a rate such that specified acceptable fuel design limits and the design conditions of the reactor coolant pressure boundary will not be exceeded. The CT reflects the importance of restoring a normal path for heat removal. The NRC staff finds that proposed new Condition D and associated Required Action D.1 and the CT, are acceptable because they provide appropriate remedial actions if the LCO is not met and, therefore, continue to meet the requirements of 10 CFR 50.36(c)(2)(i).

#### 3.2 Conclusion

The NRC staff finds that the proposed changes to Grand Gulf and River Bend TS LCO 3.4.9 are acceptable because the remedial actions continue to be required when the LCO is not met and

provide adequate protection of the health and safety of the public. Thus, the proposed changes continue to meet the requirements of 10 CFR 50.36(c)(2)(i) as discussed in section 3.0 of the NRC staff's SE for TSTF-580.

### 3.3 TS Change Consistency

The NRC staff reviewed the proposed TS changes for technical clarity and consistency with the existing requirements for customary terminology and formatting. The NRC staff finds that the proposed changes are consistent with Chapter 16.0 of the SRP and are therefore acceptable.

### 4.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

NOTICES AND ENVIRONMENTAL FINDINGS  
RELATED TO  
AMENDMENT NO. 232 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-29  
AND AMENDMENT NO. 212 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-47  
ENTERGY OPERATIONS, INC.  
GRAND GULF NUCLEAR STATION, UNIT 1  
RIVER BEND STATION, UNIT 1  
DOCKET NOS. 50-416 AND 50-458

<u>Application (i.e., initial and supplements)</u> <ul style="list-style-type: none"> <li>May 26, 2022, ML22146A189</li> </ul>	<u>Safety Evaluation Date</u> December 28, 2022
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1.0 INTRODUCTION

Entergy Operations, Inc. (Entergy, the licensee) requested changes to the technical specifications (TSs) for Grand Gulf Nuclear Station, Unit 1 (Grand Gulf) and River Bend Station, Unit 1 (River Bend) by license amendment request (LAR, application), dated May 26, 2022. In its application, the licensee requested that the U.S. Nuclear Regulatory Commission (NRC, the Commission) process the proposed amendments under the Consolidated Line Item Improvement Process (CLIIP). The proposed changes would revise the “Residual Heat Removal (RHR) Shutdown Cooling System – Hot Shutdown,” TS based on Technical Specifications Task Force (TSTF) Traveler TSTF-580, Revision 1, “Provide Exception from Entering Mode 4 With No Operable RHR Shutdown Cooling” (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21025A232), and the associated NRC staff safety evaluation (SE) for TSTF-580 (ML21188A227).

2.0 STATE CONSULTATION

In accordance with the Commission’s regulations, State officials for Mississippi and Louisiana were notified of the proposed issuance of the amendment on December 22, 2022. The State officials had no comments.

3.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change

in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, published in the *Federal Register* on July 15, 2022 (87 FR 42509), and there has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

SUBJECT: GRAND GULF NUCLEAR STATION, UNIT 1 AND RIVER BEND STATION,  
 UNIT 1 – ISSUANCE OF AMENDMENTS RE: ADOPTION TSTF-580,  
 “PROVIDE EXCEPTION FROM ENTERING MODE 4 WITH NO OPERABLE  
 RHR SHUTDOWN COOLING,” REVISION 1 (EPID L-2022-LLA-0080)  
 DATED DECEMBER 28, 2022

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**ADAMS Accession No. ML22342B280**

**\*by email**

OFFICE	NRR/DORL/LPL4/PM*	NRR/DORL/LPL4/LA*	NRR/DSS/STSB/BC*	OGC*
NAME	JDrake	PBlechman	VCusumano	STurk
DATE	12/1/22	12/8/22	10/31/22	12/14/22
OFFICE	NRR/DORL/LPL4/BC*	NRR/DORL/LPL/PM*		
NAME	JDixon-Herrity (WOrders for)	JDrake		
DATE	12/28/22	12/28/22		

**OFFICIAL RECORD COPY**