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RBG-48267

10 CFR 2.201

December 7, 2023

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Reply to a Notice of Violation, NRC Inspection Report 05000458/2023003

River Bend Station, Unit 1
NRC Docket No. 50-458
Renewed Facility Operating License No. NPF-47

Reference: NRC letter to Entergy, "River Bend Station – Integrated Inspection Report 05000458/2023003 and Notice of Violation," (ADAMS Accession No. ML23310A032), dated November 13, 2023.

In accordance with 10 CFR 2.201, Entergy Operations, Inc. (Entergy) hereby submits the Reply to Notice of Violation, EA-23-065, for River Bend Station. As requested, the Enclosure contains the following: (1) the reason for the violation; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken; and (4) the date when full compliance will be achieved.

Should you have any questions concerning this issue, please contact Randy Crawford, Manager, Regulatory Assurance, at 225-381-4177.

Respectfully,

A handwritten signature in black ink, appearing to read 'Phil Hansett', with a long horizontal flourish extending to the right.

Phil Hansett

PH/twf

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cc: NRC Regional Administrator – Region IV
NRC Senior Resident Inspector – River Bend Station
NRC Document Control Desk
R4Enforcement@nrc.gov

Enclosure

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Reply to Notice of Violation; EA-23-065

**Reply to Notice of Violation
EA-23-065**

In the U.S. Nuclear Regulatory Commission (NRC) letter to Entergy Operations, Inc. (Entergy), "River Bend Station – Integrated Inspection Report 05000458/2023003 and Notice of Violation," (ADAMS Accession No. ML23310A032), dated November 13, 2023, the NRC issued Notice of Violation EA-23-065 to Entergy's River Bend Station (RBS) as restated below:

10 CFR 50.59(c)(2)(ii) requires, in part, that a licensee shall obtain a license amendment pursuant to 10 CFR 50.90 prior to implementing a proposed change if the change would result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important-to-safety previously evaluated in the final safety analysis report (as updated).

Contrary to the above, from October 27, 2011, to September 30, 2023, the licensee failed to obtain a license amendment pursuant to 10 CFR 50.90 prior to implementing a proposed change, test, or experiment if this activity would result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important-to-safety previously evaluated in the final safety analysis report (as updated). Specifically, the licensee changed the design basis of the ultimate heat sink inventory requirements from providing a 30-day cooling water supply without the need for makeup to providing a less than 30-day cooling water supply with makeup capability, without obtaining a license amendment. The licensee implemented temporary compensatory measures that would ensure a 30-day ultimate heat sink cooling water supply.

Pursuant to the provisions of 10 CFR 2.201, this Enclosure provides Entergy's Reply to Notice of Violation, EA-23-065.

1) Reason for the Violation

RBS failed to restore compliance to NCV 05000458/2011008-06 because a License Amendment Request was not submitted for a change to the licensing basis for the Ultimate Heat Sink (UHS) that required prior NRC approval.

In the NRC letter to Entergy, "River Bend Station – NRC Component Design Bases Inspection – Inspection Report 05000458/2011008," (ADAMS Accession No. ML113400127), dated December 6, 2011, the NRC issued Non-Cited Violation 05000458/2011008-06 to RBS as restated below:

The team identified a Severity Level IV, noncited violation of 10 CFR 50.59, "Changes, Tests, and Experiments," because the licensee failed to obtain a license amendment, pursuant to 10 CFR 50.90, prior to implementing a change to the ultimate heat sink inventory requirements. Specifically, the licensee changed the design basis of the ultimate heat sink inventory requirements from providing a 30-day cooling water supply without makeup capability to providing a less than 30-day cooling water supply with makeup capability without obtaining a license amendment.

Following the issuance of NCV 05000458/2011008-06 in 2011, RBS intended to correct the condition by submitting a License Amendment Request that would credit makeup to the UHS in less than 30 days to account for system leakage and operation with more than one division of

standby service water in operation; however, the request was later withdrawn on July 7, 2014, due to NRC concerns.

The 2014 Component Design Basis NRC inspection reviewed the corrective actions to address NCV 05000458/2011008-06 and issued another NCV against 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions," for failure to take prompt corrective actions to restore compliance following the 2011 violation.

As part of corrective actions from the 2011 and 2014 NCVs, RBS revised the Updated Safety Analysis Report (USAR), Section 9.2.5, to remove the following sentence describing the licensing basis of the UHS:

"Additional makeup is required for system leakage under licensing basis condition and when operating two divisions with system leakage."

While removal of this sentence addressed a portion of the USAR changes that caused the 10 CFR 50.59 NCV issued in 2011, the NRC determined that additional portions of the RBS licensing basis still rely on the use of make-up to meet the 30-day requirement for the UHS and that RBS had still not received NRC approval for this change. Specifically, USAR Section 9.2.5.1.2 states that, "the capacity of the UHS water storage basin is designed to provide necessary cooling for the period of time (30 days) needed to evaluate the situation, to take corrective action to mitigate the consequences of an accident, and if required to take any necessary measures to permit water replenishment." This is different than the approved section from the Safety Evaluation Report that stated the UHS had more than a 30-day supply with no makeup required.

The original RBS license basis stated that the UHS will last 30 days assuming a single active failure with no makeup required. The allowance for makeup to the UHS was done without prior NRC approval, contrary to 10 CFR 50.59.

The License Amendment Request was not submitted to the NRC because RBS understood the original UHS licensing basis for the active single failure to be considered was that of the Division II Emergency Diesel Generator. This understanding was based on the originally submitted FSAR. From a plant response perspective, that continues to be the case and, assuming the failure of one Emergency Diesel Generator, the heat load on the UHS continues to allow the UHS to meet the 30-day supply with no makeup requirement. However, considering the heat load on the UHS without the failure of an Emergency Diesel Generator, the UHS would not be able to meet the 30-day supply with no makeup. As a result of this recognition, compensatory measures have been established to ensure a 30-day UHS cooling water supply and a License Amendment Request will be submitted to change the licensing basis. As of the date of this letter, the License Amendment Request has not been submitted.

2) Corrective Steps That Have Been Taken and the Results Achieved

On June 1, 2023, Compensatory Measures were implemented that ensure a 30-day Ultimate Heat Sink (UHS) cooling water supply.

- Minimum Standby Cooling Tower (SBCT) level was raised.
- Alternate methods to provide make up water to SBCT were established.
- Unnecessary heat load on the SBCT was reduced or eliminated.

3) Corrective Steps That Will Be Taken

A License Amendment Request will be submitted to the NRC to revise the RBS licensing basis. The licensing basis will be revised in accordance with Reg Guide 1.27 to credit an alternate makeup source to the SBCT and reduce SBCT inventory requirements from 30 days to approximately 20 days.

4) Date When Full Compliance Will Be Achieved

Compliance with Compensatory Measures was achieved on June 1, 2023, when the Compensatory Measures described in section 2 above were implemented. Full compliance with no Compensatory Measures will be achieved when the NRC-approved License Amendment is implemented. The License Amendment is scheduled to be submitted to the NRC by September 30, 2024.