

CNRO2022-00026

10 CFR 50.55a(z)(1)

December 6, 2022

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

Subject: Request to Update ASME Code Relief Request Safety Evaluations with
NRC-Approved Revision of BWRVIP Guidelines (GG-ISI-020, and
RBS-ISI-019)

Grand Gulf Nuclear Station, Unit 1
NRC Docket No. 50-416
Renewed Facility Operating License No. NPF-29

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

In accordance with 10 CFR 50.55a(z)(1), Entergy Operations, Inc. (Entergy) is requesting a revision to U.S. Nuclear Regulatory Commission (NRC) Safety Evaluations (SEs) for Grand Gulf Nuclear Station, Unit 1 (GGNS) Relief Request GG-ISI-020 (Reference 1) and River Bend Station, Unit 1 (RBS) Relief Request RBS-ISI-019 (Reference 2) concerning the use of the Boiling Water Reactor Vessel and Internals Project (BWRVIP) Guidelines in lieu of specific ASME Code requirements on Reactor Pressure Vessel internals and components inspection.

After the issuance of the References 1 and 2 NRC SEs, the BWRVIP has issued a revision to BWRVIP Guidelines. Specifically, BWRVIP-48, Revision 2, "BWR Vessel and Internals Project BWR Vessel ID Attachment Weld Inspection and Flaw Evaluation Guidelines," has been issued. This revision has been evaluated in accordance with NEI 03-08, "Guideline for the Management of Materials Issues," Revision 4, Appendix C, "Document Screening."

Entergy is requesting the previously approved NRC SEs for GGNS relief request GG-ISI-020 and RBS relief request RBS-ISI-019 be revised to include the updated BWRVIP Guideline revision. The Enclosure to this letter provides a description and assessment of the proposed changes.

In Reference 3, the NRC approved a similar request to revise NRC SEs issued to Entergy concerning the use of the BWRVIP Guidelines in lieu of specific ASME Code requirements on Reactor Pressure Vessel internals and components inspection.

This letter contains no new regulatory commitments.

Entergy requests approval of the proposed request by January 6, 2024.

Should you have any questions or require additional information, please contact me at (601) 368-5102.

Respectfully,

Phil Couture

PLC/gpn

Enclosure: Revision to NRC Safety Evaluations for Relief Requests GG-ISI-020 and RBS-ISI-019 Associated with the Use of the BWRVIP Guidelines in lieu of Specific ASME Code Requirements in Accordance with 10 CFR 50.55a(z)(1)

- References:
- 1) Letter from U.S. Nuclear Regulatory Commission (NRC) to Entergy Operations, Inc. (Entergy), "Grand Gulf Nuclear Station, Unit 1 - Relief Request GG-ISI-020 Proposing an Alternative for the Fourth 10-year Inservice Inspection Program by Using Boiling Water Reactor Vessel and Internals Project Guidelines In lieu of Specific American Society of Mechanical Engineers Code Requirements (CAC No. MF9460; EPID L-2017-LLR-0017)" (ML18003B126), dated January 23, 2018
 - 2) Letter from NRC to Entergy, "River Bend Station, Unit 1 – Relief from the Requirements of American Society of Mechanical Engineers Boiler and Pressure Vessel Code to Use Boiling Water Reactor Vessel and Internals Project Guidelines as an Alternative (EPID L-2018-LLR-0008)" (ML18310A013), dated November 16, 2018
 - 3) Letter from NRC to Entergy Operations Inc, "Grand Gulf Nuclear Station, unit 1 and River Bend Station, Unit 1 – Request to update American Society of Mechanical Engineers Code Relief Request Safety Evaluations with NRC-approved Revision of Boiling Water Reactor Vessel and Internals Project Guidelines (EPID L-2020-LLR 0079)" (ML21258A408), dated September 21, 2021

cc: NRC Region IV Regional Administrator
NRC Senior Resident Inspector – Grand Gulf Nuclear Station, Unit 1
NRC Senior Resident Inspector – River Bend Station, Unit 1
NRC Project Manager – Grand Gulf Nuclear Station, Unit 1
NRC Project Manager - River Bend Station, Unit 1

Enclosure

CNRO2022-00026

**Revision to NRC Safety Evaluations for Relief Requests GG-ISI-020 and
RBS- ISI-019 Associated with the Use of the BWRVIP Guidelines in lieu of
Specific ASME Code Requirements in Accordance with 10 CFR 50.55a(z)(1)**

1.0 REASON FOR REQUEST

In accordance with 10 CFR 50.55a(z)(1), Entergy Operations, Inc. (Entergy) is requesting a revision to U.S. Nuclear Regulatory Commission (NRC) Safety Evaluations (SEs) for Grand Gulf Nuclear Station, Unit 1 (GGNS) Relief Request GG-ISI-020 (Reference 1) and River Bend Station, Unit 1 (RBS) Relief Request RBS-ISI-019 (Reference 2), concerning the use of Boiling Water Reactor Vessel and Internals Project (BWRVIP) Guidelines in lieu of specific ASME Code requirements on Reactor Pressure Vessel internals and components inspection.

After the issuance of the SEs, a revision to a BWRVIP Guideline document has been issued and evaluated in accordance with NEI 03-08, "Guideline for the Management of Materials Issues," Revision 4, Appendix C, "Document Screening." The applicable NRC SEs, the currently listed BWRVIP Guideline revision, and the requested BWRVIP Guideline revision for GGNS Relief Request GG-ISI-020 and RBS relief request RBS-ISI-019 are listed in Table 1. Specifically, the following BWRVIP Guideline document revision has been evaluated in accordance with NEI 03-08, Appendix C. The results of that screening evaluation indicate that the revised document may be generically released for implementation by BWRVIP members, without NRC review and approval:

- BWRVIP-48, Revision 2, "BWR Vessel and Internals Project BWR Vessel ID Attachment Weld Inspection and Flaw Evaluation Guidelines," (Reference 3).

Entergy is requesting approval to use this latest BWRVIP Guideline revision for the specified GGNS and RBS relief requests, in place of the document revisions cited in the listed NRC SEs on the basis that these revised and approved BWRVIP documents provide an acceptable level of quality and safety.

The BWRVIP Guidelines recommend aggressive specific inspection by BWR operators to identify material condition issues with BWR components. A wealth of inspection data has been gathered during these inspections across the BWR industry. These guidelines focus on specific and susceptible components & materials, specify appropriate inspection methods capable of identifying anticipated degradation mechanisms, and require re-examination at conservative intervals. In contrast, the code inspection requirements were prepared before the BWRVIP initiative and have not evolved with BWR inspection experience.

2.0 PROPOSED REVISION

In References 4 and 5, Entergy submitted relief requests for GGNS and RBS that proposed the use of BWRVIP guidelines as an alternative to the requirements of Section XI of the ASME Code for the ISI of the Reactor Pressure Vessel (RPV) interior surfaces, attachments, and core support structures. In the SEs that approved these relief requests, the NRC cited specific revisions of the applicable BWRVIP documents. In References 4 and 5, Entergy also submitted a request to include several recent BWRVIP document revisions in the respective SEs. In the time since the NRC approval for Reference 6, the BWRVIP document listed in Table 1 has been revised by the BWRVIP, and evaluated in accordance with NEI 03-08, Appendix C. Entergy requests that the

latest revision of BWRVIP-48 be used as an alternative to the revision currently listed in the respective SEs.

Table 1
Plants with Updated BWRVIP Document Revisions

| | Unit Relief Request No. | |
|--|------------------------------------|------------------------------|
| | GGNS (GG-ISI-020) | RBS (RBS-ISI-019) |
| Last Relief Request Safety Evaluation ADAMS Accession No. | ML21258A408 | ML21258A408 |
| Listed BWRVIP-48 Revision | 1 | 1 |
| Requested BWRVIP-48 Revision | 2 | 2 |

3.0 REFERENCES

1. Letter from U.S. Nuclear Regulatory Commission (NRC) to Entergy Operations, Inc. (Entergy), "Grand Gulf Nuclear Station, Unit 1 - Relief Request GG-ISI-020 Proposing an Alternative for the Fourth 10-year Inservice Inspection Program by Using Boiling Water Reactor Vessel and Internals Project Guidelines In lieu of Specific American Society of Mechanical Engineers Code Requirements (CAC No. MF9460; EPID L-2017-LLR-0017)" (ML18003B126), dated January 23, 2018
2. Letter from NRC to Entergy, "River Bend Station, Unit 1 – Relief from the Requirements of American Society of Mechanical Engineers Boiler and Pressure Vessel Code to Use Boiling Water Reactor Vessel and Internals Project Guidelines as an Alternative (EPID L-2018-LLR-0008)" (ML18310A013), dated November 16, 2018
3. BWRVIP-48, Revision 2, "BWR Vessel and Internals Project BWR Vessel ID Attachment Weld Inspection and Flaw Evaluation Guidelines"
4. Letter from Entergy to NRC, "Grand Gulf Nuclear Station, Unit 1 - Request for Relief GG-ISI-020, " Proposed Alternative with 10 CFR 50.55a (z) (1), Use of Boiling Water Reactor Vessel and Internals Project (BWRVIP) Guidelines at Grand Gulf Nuclear Station," (ML17074A625), dated March 15, 2017

5. Letter from Entergy to NRC, "Request for Alternative in Accordance with 10 CFR 50.55a(z)(1) Use of Boiling Water Reactor Vessel and Internals Project (BWRVIP) Guidelines in Lieu of Specific ASME Code Requirements (RR- RBS-ISI-019)," (ML18045A151), dated February 13, 2018
6. Letter from NRC to Entergy Operations Inc, "Grand Gulf Nuclear Station, Unit 1 and River Bend Station, Unit 1 – Request to update American Society of Mechanical Engineers Code Relief Request Safety Evaluations with NRC-approved Revision of Boiling Water Reactor Vessel and Internals Project Guidelines (EPID L-2020-LLR 0079)" (ML21258A408), dated September 21, 2021