



Entergy Operations, Inc.
1340 Echelon Parkway
Jackson, MS 39213
Tel 601-368-5138

Phil Couture
Senior Manager, Fleet Regulatory
Assurance

RBG-48075

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

Subject: Notification of Deviation from BWRVIP Guidelines

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

The purpose of this letter is to notify the U.S. Nuclear Regulatory Commission (NRC) of a deviation from the inspection schedule outlined in Boiling Water Reactor Vessel and Internals Project (BWRVIP) guidelines for the Entergy Operations, Inc. (Entergy) River Bend Station, Unit 1 (RBS).

Entergy has elected to defer all BWRVIP inspections at RBS from the twenty first refueling outage in Spring 2021 (i.e., RF-21) to RF-22 in Spring 2023. As such, certain vessel internals component inspections will not be performed within their required respective BWRVIP-recommended re-inspection frequencies specified in References 1 through 7. The proposed deviation defers the required BWRVIP inspections for one 2-year fuel cycle.

The scope of the components that will be deviating from the BWRVIP re-inspection frequencies are:

- Core Spray piping welds
- Low Pressure Core Injection (LPCI) Coupling Assembly welds
- Jet Pump Riser Brace Pad attachment welds
- Core Shroud off-axis inspections
- Top Guide cells and the 0° & 180° rim welds

The BWRVIP program implementation guidelines (Reference 8) provide guidance to ensure consistent application by members. In accordance with Reference 8, Entergy evaluated the acceptability of these exam deferrals, and documented and approved the deferrals in a deviation disposition. As required by Reference 8, Entergy is notifying the NRC within 45 days of deviation disposition approval. This notification is for information only and no action on the part of the NRC is requested.

The deferral of the Core Spray piping (CSP) weld inspections is a deviation from the inspection guidance provided by Reference 1. These deferrals are justified by the component inspection history and the industry performance of L-grade CSP components. Core spray weld inspections selected for deferral have previously been examined and have no discoveries of relevant indications. The primary degradation mechanism of the CPS is intergranular stress corrosion cracking (IGSCC), an example leakage calculation due to IGSCC demonstrates that the leakage from a very conservatively postulated through-wall crack would be relatively inconsequential.

The deferral of the LPCI Coupling Assembly weld inspections is a deviation from the guidance provided by Reference 2. These deferrals are justified by the component inspection history and the industry operating experience demonstrating no applicable LPCI coupling flaws have been identified. LPCI Assembly weld inspections selected for deferral have previously been examined and have no discoveries of relevant indications.

The deferral of the Jet Pump Riser Brace Pad attachment welds is a deviation from the inspection guidance provided by Reference 3. These deferrals are justified by the component inspection history, the industry operating experience and by the mitigation provided by hydrogen water chemistry in accordance with Reference 4. Jet Pump Riser Brace Pad attachment inspections selected for deferral have previously been examined and have no discoveries of relevant indications.

The deferral of the Core Shroud off-axis inspections is a deviation from the inspection guidance provided by Reference 5. These deferrals are justified by the application of the guidance provided in References 5 and 6.

The deferral of the Top Guide cell and rim weld inspections is a deviation from the guidance provided by Reference 7. These deferrals are justified by the component inspection history, as well as the flaw tolerant design of the BWR/6 Top Guide. Top Guide 0° & 180° rim welds inspections selected for deferral have previously been examined and have no discoveries of relevant indications.

This letter does not contain any new commitments.

If you require additional information, please contact Mr. Tim Schenk at (225) 381-4177 or tschenk@entergy.com.

Respectfully,

Phil Couture

PC/baj

- References:
- 1) BWRVIP-18, Revision 2-A, "BWR Vessel and Internals Project, BWR Core Spray Internals Inspection and Flaw Evaluation Guidelines," August 2016
 - 2) BWRVIP-42, Revision 1-A, "BWR Vessel and Internals Project, Low Pressure Coolant Injection (LPCI) Coupling Inspection and Flaw Evaluation Guidelines," November 2017
 - 3) BWRVIP-48, Revision 1, "BWR Vessel and Internals Project, Vessel ID Attachment Weld Inspection and Flaw Evaluation Guidelines," June 2019
 - 4) BWRVIP-62, Revision A, "BWR Vessel and Internals Project, Technical Basis Inspection Relief for BWR Component with Hydrogen Water Chemistry Injection," November 2018
 - 5) BWRVIP 2016-030, "Core Shroud Off-Axis Cracking Interim Inspection & Flaw Evaluation Guidance," April 2016
 - 6) BWRVIP-76, Revision 1-A, "BWR Vessel and Internals Project, BWR Core Shroud Inspection and Flaw Evaluation Guidelines," April 2015
 - 7) BWRVIP-183-A, "BWR Vessel and Internals Project, Top Guide Grid Beam Inspection and Flaw Evaluation Guidelines," November 2017
 - 8) BWRVIP-94, Revision 4, "BWR Vessel and Internals Project, Program Implementation Guide, EPRI Technical Report 3002019689," November 2020

cc: NRC Regional Administrator - Region IV
NRC Project Manager - River Bend Station
NRC Senior Resident Inspector - River Bend Station
Louisiana Department of Environmental Quality