From:	ELLIOTT Gayle (Framatome)
To:	Hoc, HOO X
Subject:	[External_Sender] 10 CFR 21 Notification of Defect - Public
Date:	Saturday, June 22, 2024 8:39:57 AM
Attachments:	image003.png Notice of 10 CFR 21 Defect - June 2024 FINAL.docx
Sensitivity:	Confidential

Attached is a Framatome Inc. Notification of Defect.

Thank you,

Gayle Elliott
Director, Licensing & Regulatory Affairs
Framatome Inc.

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framatome

Notice of 10 CFR 21 Defect

Subject:

Notification of 10 CFR 21 Defect

Name and Address of Individual Informing the Commission:

Gayle Elliott
Director, Licensing & Regulatory Affairs
Framatome Inc.
3315 Old Forest Road
Lynchburg, Va. 24501

Title:

Burnable Poison Rod Assembly Misload

Identification of Basic Activity:

Burnable Poison Rod Assembly

Basic Activity Supplied By:

Framatome Inc.

Nature of Defect:

Framatome Inc. (Framatome) was notified by Duke Energy Carolinas regarding unexpected high reactor peaking factor readings seen during start-up testing at Oconee Unit 3, Cycle 33 in a core location (H-5) that had a fresh fuel assembly of type 35A (UDPK01), fresh Burnable Poison Rod Assembly (BPRA) (BGAA), and a new incore detector. It was determined that the unexpected high readings resulted from incorrect boron concentration of Al2O3-B4C pellets in two of the BPRAs. A second BPRA (BGA9) was located in core location (D-7). During the fabrication process of the BPRAs, 0.2% boron concentration Al2O3-B4C pellets were inadvertently combined with the intended 2.0% boron concentration Al2O3-B4C pellets, which were then placed back into inventory labeled as 2.0%.

The BPRA concentration is a critical characteristic of a core design. This non-conformance affects the safety function of these two BPRAs and could contribute to exceeding a reactor core safety limit, as defined in the technical specifications of the licensee, were it to remain uncorrected.

Defect Determination Date:

This issue was determined to be a 10 CFR 21 Defect on June 21, 2024.

Number and Location of Basic Components:

The identified defect is isolated to only one reactor, Oconee Unit 3 and only in Cycle 33. Two BPRAs were affected.

Corrective Actions to Date:

- Framatome Inc. replaced the two affected BPRAs with BPRAs fabricated correctly.
- A Root Cause Analysis has been initiated by Framatome Inc. and is scheduled for completion by July 31, 2024.

Advice related to the Defect:

Framatome replaced the two affected BPRAs and informed Oconee Unit 3 of the initiation of a Root Cause Analysis.