

September 02, 2026

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Chief Financial Officer
Washington, DC 20555-0001

Serial No.: 26-165
NRA/NDM.: R0
Docket No.: 50-423
License No.: NPF-49

DOMINION ENERGY NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3
REQUEST FOR FEE EXEMPTION FOR NRC REVIEW FEES FOR SPENT FUEL
POOL CRITICALITY LICENSE AMENDMENT REQUEST INVOLVING 24-MONTH
FUEL CYCLES

On August 27, 2026 (ADAMS Accession No. ML26239A117), Dominion Energy Nuclear Connecticut, Inc. (DENC) submitted a license amendment request (LAR) for Millstone Power Station Unit 3 (MPS3) to revise the spent fuel pool (SFP) criticality analysis to support implementation of high-burnup (HBU) LEU+ (fuel enriched between 5-10 U-235 weight percent enrichment) fuel enriched up to 6.5 weight percent (wt%) U-235 and transition to 24-month fuel cycles. DENC plans to submit the remainder of the LARs involving 24-month fuel cycles for MPS3 by Quarter 4 of 2026, with the first 24-month fuel cycle beginning in the Spring of 2028. MPS3 will be the lead plant to utilize the first full batch of HBU LEU+ fuel assemblies beyond the 5.0 U-235 wt% limit set in 10 CFR 50.68(b)(7).

DENC originally presented the proposed SFP criticality analysis LAR to the Nuclear Regulatory Commission (NRC) staff on July 17, 2025 (ADAMS Accession No. ML25231A302). During that meeting, DENC and the NRC discussed several technical topics related to implementation of LEU+ fuel, including application of current regulatory guidance to LEU+ fuel and computer code uncertainties associated with LEU+.

On May 20, 2026 (ADAMS Accession No. ML26222A057), DENC and the NRC held a public pre-submittal meeting to discuss the licensing actions to support the transition to 24-month fuel cycles for MPS3. A potential fee waiver associated with the SFP criticality analysis LAR supporting 24-month fuel cycles at MPS3 with the implementation of LEU+ fuel was also discussed during this meeting.

Pursuant to 10 CFR 170.11(b), DENC requests an exemption from review fees associated with the MPS3 SFP criticality analysis LAR, including meetings for MPS3 involving SFP criticality analysis to support the implementation of HBU LEU+ fuel. The exemption is authorized by law and is in the public's interest because the NRC staff's review will provide benefits beyond this MPS3-specific application. The LAR supports implementation of the first full batch of LEU+ fuel at enrichments above the current 5.0 wt% U-235 limit in 10 CFR 50.68(b)(7), representing a first-of-a-kind application for an operating plant.

The LAR applies existing regulatory guidance and established analytical methods to fuel enrichments beyond the range historically addressed in operating-reactor SFP criticality licensing applications, including Nuclear Energy Institute (NEI) 12-16 "Guidance for Performing Criticality Analyses of Fuel Storage at Light-Water Reactor Power Plants." As noted in Regulatory Guide (RG) 1.240, "Fresh and Spent Fuel Pool Criticality Analyses," Exception "o", advanced or non-standard fuel designs may require additional justification of modeling assumptions and treatment of uncertainties. This analysis addresses many of those considerations for higher enrichment fuel in a licensed plant configuration.

The NRC staff's review will provide insight into how existing guidance can be applied to LEU+ fuel and will inform similar future submittals. Because other licensees are expected to pursue higher enrichment fuel and longer fuel cycles, the results are expected to support more consistent and efficient reviews.

Accordingly, the NRC staff's review of this LAR will contribute to the development of a regulatory basis applicable to a broader set of licensees and therefore meets the criteria for a fee exemption under 10 CFR 170.11(b) as being in the public interest.

Should you have any questions or require any additional information, please contact Nick Maynard at (804) 273-3910.

Respectfully,


James E. Holloway (Sep 2, 2026 10:15:23 PDT)

James E. Holloway
Vice President – Nuclear Engineering and Fleet Support

Commitments contained in this letter: None.

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