



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

July 3, 2025

**LICENSEE:** PSEG NUCLEAR LLC

**FACILITIES:** SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2

**SUBJECT:** SUMMARY OF JUNE 25, 2025, CLOSED MEETING WITH PSEG NUCLEAR, LLC REGARDING COBALT-60 PRODUCTION AT SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2 (EPID L-2025-LRM-0060)

On June 25, 2025, a closed preapplication meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff and representatives for PSEG Nuclear LLC (the licensee), Westinghouse Electric Company (Westinghouse), and Nordion (Canada) Inc. The purpose of the meeting was to discuss a planned license amendment request involving the loading of fuel inserts containing Cobalt-59 as a means to breed Cobalt-60 for eventual use in medical sterilization applications.

The meeting notice and agenda are available in Agencywide Documents Access and Management System (ADAMS) under Accession No. ML25140A029. A list of attendees is enclosed. Proprietary presentation slides and the associated affidavit were provided on June 18, 2025. The publicly available version of the affidavit and slides is accessible at ML25169A318, and the non-public proprietary slides are available at ML25169A319.

The discussion covered the design characteristics of the Cobalt Burnable Absorber (COBA) fuel inserts, digital serialization, and the final development and testing activities conducted by Westinghouse.

The licensee provided an overview of the Co-60 program scope, including the planned contents of the license amendment request, dose consequence evaluation, decay heat assessment, spent fuel pool criticality, digital serialization, and final development and testing activities performed by Westinghouse.

The NRC staff made the following suggestions:

1. Include a discussion regarding the pathways modeled in the loss-of-coolant accident (LOCA) dose consequence evaluation.
2. Include a discussion on the net decay heat of the COBA assemblies.
3. Address the design basis emergency core cooling system LOCA and rationale for expecting no release from the COBA rodlets for this event.
4. Address the integrity and margin to failure for the Cobalt-60 slugs during non-LOCA accidents and transients, particularly loss of flow events that may involve a sudden, temporary reduction in cooling.
5. Summarize the tests and benchmark comparisons done to validate the computational fluid dynamics model for COBA rodlet cooling flow, including the scope of the testing,

consideration of normal vs. transient conditions, and the technical basis for extending any steady-state comparisons to transient conditions.

The licensee stated during the meeting that they would be updating the dose consequence analysis for steam generator tube rupture (SGTR). However, in an email exchange post-meeting, the licensee indicated that in reviewing the current draft of the Westinghouse site-specific attachment, justification is provided as to why the SGTR event does not need to be updated due to its insignificant contribution during the time frame of the release.

Please direct any inquiries to me at [Shawn.Williams@nrc.gov](mailto:Shawn.Williams@nrc.gov).

Sincerely,

**/RA/**

Shawn Williams, Senior Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-272 and 50-311

Enclosure:  
List of Attendees

cc: Listserv

LIST OF ATTENDEES

JUNE 25, 2025, MEETING WITH PSEG NUCLEAR LLC

<b>Name</b>	<b>Affiliation</b>
Shawn Williams	U.S. Nuclear Regulatory Commission (NRC)
Hipo González	NRC
Kent Wood	NRC
David Garmon	NRC
Jack Vande Polder	NRC
Steve Wyman	NRC
John Lehning	NRC
Richard Fu	NRC
Elijah Dickson	NRC
Ekaterina Lenning	NRC
John Parillo	NRC
Shane Jurek	PSEG Nuclear LLC (PSEG)
Michael Wiwel	PSEG
James Richter	PSEG
Jim Stavely	PSEG
Jerrold Ewing	Westinghouse Electric Company LLC (Westinghouse)
Kalee Fenker	Westinghouse
Kristofor Paserba	Westinghouse
James Smith	Westinghouse
Michael Wenner	Westinghouse
Virgina Lynch	Westinghouse
Eric Benacquista	Westinghouse
Daniel Wise	Westinghouse
Robert Jakub	Westinghouse
Thomas Loebig	Westinghouse
Michael Conner	Westinghouse
Sean Kinnas	Westinghouse
Mark Smith	Westinghouse
Sreela Ferguson	Westinghouse
Michael Winegardner	Westinghouse
Jim Laird	Westinghouse
Lisa Dudas	Westinghouse
Nicholas MacPherson	Nordion
Michael Aube	Nordion

Enclosure

SUBJECT: SUMMARY OF JUNE 25, 2025, CLOSED MEETING WITH PSEG NUCLEAR,  
LLC REGARDING COBALT-60 PRODUCTION AT SALEM NUCLEAR  
GENERATING STATION, UNIT NOS. 1 AND 2 (EPID L-2025-LRM-0060)  
DATED JULY 3, 2025

**DISTRIBUTION:**

PUBLIC

RidsNrrDorl Resource

RidsNrrDorlLpl1 Resource

RidsRgn1MailCenter Resource

RidsNrrLAKEntz Resource

RidsAcrc\_MailCTR Resource

RidsNrrPMSalem Resource

RidsNrrDraArcb Resource

RidsNrrDssSfnb Resource

BPurnell, NRR

DGarmon-Candelaria, NRR

JParillo, NRR

KWood, NRR

JLehningIII, NRR

JVandePolder, NRR

NAmiri, NRR

SWyman, NRR

**ADAMS Accession No.: ML25171A176**

**\*via eConcurrence**

**NRC-001**

OFFICE	NRR/DORL/LPL2-1/PM	NRR/DORL/LPL1/LA	NRR/DSS/SFNB/BC
NAME	SWilliams	KEntz	SKrepel
DATE	6/25/2025	7/3/2025	7/2/2025
OFFICE	NRR/DORL/LPL1/BC	NRR/DORL/LPL2-1/PM	
NAME	HGonzález	SWilliams	
DATE	7/3/2025	7/3/2025	

**OFFICIAL RECORD COPY**