

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 9, 2025

MEMORANDUM TO: Mahmoud Jardaneh, Chief

New Reactor Licensing Branch

Division of New and Renewed Licenses Office of Nuclear Reactor Regulation

FROM: Victoria V. Huckabay, Senior Project Manager /RA/

Licensing and Regulatory Infrastructure Branch

Division of New and Renewed Licenses Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE JUNE 26, 2025, PUBLIC MEETING WITH SMR,

LLC (A HOLTEC INTERNATIONAL COMPANY) TO DISCUSS

SMR-300 COMBUSTIBLE GAS CONTROL CONSIDERATIONS FOR

THE IN-CONTAINMENT SPENT FUEL POOL

Meeting Information:

Vendor: SMR, LLC (SMR), A Holtec International Company (Holtec)

Docket No.: 99902049

Meeting Title: SMR-300 Combustible Gas Control Considerations for the In-Containment Spent

Fuel Pool

Meeting Date: June 26, 2025

Meeting Type: Partially Closed

Public Meeting Notice Agencywide Documents Access and Management System (ADAMS)

Accession No.: ML25176A104

Meeting Attendees: See Enclosure 1 for list of meeting attendees

Enclosure 2 to this letter contains Proprietary Information. When separated from Enclosure 2, this letter is DECONTROLLED.

CONTACT: Victoria V. Huckabay, NRR/DNRL/NLIB (301) 415-5183

Meeting Summary:

The U.S. Nuclear Regulatory Commission (NRC) staff conducted the meeting in accordance with NRC Management Directive 3.5, "Attendance at NRC Staff-Sponsored Meetings" (ML21180A271). SMR (Holtec) provided an overview of the regulatory requirements and guidance for combustible gas control considerations and highlighted unique design features of SMR-300, which include a spent fuel pool (SFP) located inside the containment.

During the open portion of the meeting, SMR (Holtec) stated that there is no regulatory requirement or guidance for combustible gas control for the SFP (ML25167A330). The NRC staff pointed out that the regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.44 require that the applicant consider all spent fuel located inside the containment rather than just fuel that is located in the reactor core. SMR (Holtec) explained that it has evaluated the risk of SFP uncovery that would lead to hydrogen generation and determined that it would be negligible. SMR (Holtec) also suggested that it may consider other options, such as requesting an exemption from certain provisions of 10 CFR 50.44.

SMR (Holtec) asked the NRC staff if 10 CFR 55.44(c) is the correct section of the regulations that would be applicable to SMR-300. The NRC staff responded affirmatively and added that other paragraphs in the regulations at 10 CFR 50.44 would also apply. Following the conclusion of the meeting, the NRC staff offered the following clarification: either 10 CFR 50.44(c) or 10 CFR 50.44(d) would apply to SMR-300, depending on the type and quantity of cladding materials used for the reactor fuel.

At the end of the open portion of the meeting, members of the public were invited to provide comments or ask the NRC staff questions pertaining to the scope of the meeting. One member of the public provided several comments, one of which was considered within the scope of the meeting. The commenter expressed a concern with potentially high humidity inside the containment in the event of a boil-off. In response to the comment, the NRC staff stated that the potential issue with humidity would be reviewed by the staff during the accident analysis evaluation.

Enclosures:

- 1. List of Attendees
- Meeting Minutes Closed Portion (non-public)

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(A HOLTEC INTERNATIONAL COMPANY) TO DISCUSS SMR-300 COMBUSTIBLE GAS CONTROL CONSIDERATIONS FOR THE IN-

CONTAINMENT SPENT FUEL POOL

DATED: SEPTEMBER 9, 2025

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ADAMS Accession Nos.: Package: ML25223A157 Memo: ML25223A160

Enclosure 2: ML25223A161 via email NRC-001

OFFICE	NRR/DNRL/NLIB:PM	NRR/DNRL/NLIB:LA*	NRR/DNRL/NRLB BC*	NRR/DNRL/NLIB:PM
NAME	VHuckabay	SGreen	MJardaneh	VHuckabay
DATE	08/11/2025	08/11/2025	08/20/2025	09/09/2025

OFFICIAL RECORD COPY

June 26, 2025, Public Meeting with SMR (Holtec) to Discuss SMR-300 Combustible Gas Control Considerations for the In-Containment Spent Fuel Pool

Meeting Attendees

Name	Organization	
Victoria Huckabay	U.S. Nuclear Regulatory Commission (NRC)	
Milton Valentin	NRC	
Jobin Binu Daniel	NRC	
Raul Hernandez	NRC	
Hanry Wagage	NRC	
Steven Alferink	NRC	
Brian Lee	NRC	
Benjamin Rothberg	NRC	
Emmanuel Sayoc	NRC	
Rob Atienza	NRC	
Cade Gertsen	SMR (Holtec)	
Jake Dolecki	SMR (Holtec)	
Clark Shurtleff	SMR (Holtec)	
Monica Haneman	SMR (Holtec)	
Rick Rosas	SMR (Holtec)	
Hovhannes Hovhannisyan	SMR (Holtec)	
Sarah Horacek	SMR (Holtec)	
Henry Kohn		
Rod Cook		
Michael Keegan		
Spencer Toohill		
Daniela Serrano Diaz		