



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

February 6, 2026

MEMORANDUM TO: Michelle W. Hayes, Chief
Licensing and Regulatory Infrastructure Branch
Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation

FROM: Victoria V. Huckabay, Senior Project Manager
Licensing and Regulatory Infrastructure Branch
Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation

A handwritten signature in blue ink that reads "V. Huckabay".

Signed by Huckabay
on 02/06/26

SUBJECT: AUDIT PLAN FOR THE REGULATORY AUDIT OF "SMR-300
CONCRETE STRENGTHENED STEEL STRUCTURES DESIGN AND
ANALYSIS METHODOLOGY LICENSING TOPICAL REPORT"

By letter dated December 2, 2025, SMR, LLC, a Holtec International Company (SMR (Holtec)), submitted Licensing Topical Report (LTR) HI-2251825, Revision 0, "SMR-300 Concrete Strengthened Steel Structures Design and Analysis Methodology Licensing Topical Report."^{1,2} The U.S. Nuclear Regulatory Commission (NRC) staff accepted the LTR for review on January 27, 2026.³

As part of the LTR review, the NRC staff will conduct an audit to better understand the information submitted by SMR (Holtec). The audit will be conducted in SMR (Holtec)'s online portal from February 11, 2026, through July 31, 2026 (date approximate). There will be an entrance meeting to discuss the audit process and an exit meeting to summarize the activities and status of each item. In-person meetings may be added to facilitate discussions during the audit, as necessary. The NRC staff will issue an audit summary within approximately 90 days following the exit meeting. The audit plan is provided as Enclosure 1, and initial detailed information required for the regulatory audit is provided in Enclosure 2 (ML26033A014, proprietary).

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

¹ Letter from P. Lashley to NRC, "SMR-300 Concrete Strengthened Steel Structures Design and Analysis Methodology Licensing Topical Report," dated December 2, 2025 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML25336A061, part of package ML25336A060).

² Letter from P. Lashley to NRC. Enclosure 2, "SMR-300 Concrete Strengthened Steel Structures Design and Analysis Methodology Licensing Topical Report," dated December 2, 2025 (ML25336A063, part of package ML25336A060).

³ Email from NRC to P. Lashley, "Topical Report Completeness Determination for Report Number HI-2251825 Revision 0," dated January 27, 2026 (ML26007A004, part of package ML26007A003).

This audit will be conducted in accordance with the guidance provided in Office Instruction LIC-111, Revision 2, "Regulatory Audits."⁴

Docket No. 99902049

Enclosures:
As stated

⁴ U.S. NRC, LIC-111, Revision 2, "Regulatory Audits," dated December 19, 2024 (ML24309A281).

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DATE: FEBRUARY 6, 2026

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ADAMS Accession No.:

Pkg: ML26033A011

Memo: ML26033A013

Encl 2: ML26033A014 (Non-Public) via* e-concurrence NRR-106

OFFICE	NRR/DNRL/NLIB: PM	NRR/DNRL/NLIB::BC	NRR/DNRL/NLIB:PM
NAME	VHuckabay	MHayes	VHuckabay
DATE	02/04/2026	02/05/2026	2/6/26

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UNITED STATES NUCLEAR REGULATORY COMMISSION

**AUDIT PLAN FOR THE “SMR-300 CONCRETE STRENGTHENED STEEL STRUCTURES
DESIGN AND ANALYSIS METHODOLOGY LICENSING TOPICAL REPORT”
(CAC/EPID: 002060/ L-2025-TOP-0039)**

Docket No. 99902049

AUDIT PLAN

APPLICANT: SMR (Holtec)

CONTACTS: Victoria Huckabay

DURATION: February 11 to July 31, 2026 (Approximate Audit Exit)

AUDIT TEAM: Michelle Hayes – Branch Chief (Office of Nuclear Reactor Regulation (NRR))
Ian Tseng – Branch Chief (NRR)
Christopher Cook – Branch Chief (NRR)
Victoria Huckabay – Senior Project Manager (NRR)
George Thomas – Technical Reviewer (lead) (NRR)
Patrick Koch – Technical Reviewer (NRR)
Sarah Tabatabai – Technical Reviewer (NRR)

Additional audit team members may be included as needed.

Observers from the United Kingdom Office for Nuclear Regulation may be invited to observe audit activities.

I. BACKGROUND AND AUDIT BASIS

By letter dated December 2, 2025, SMR, LLC, a Holtec International Company (SMR (Holtec)), submitted Licensing Topical Report (LTR) HI-2251825, Revision 0, “SMR-300 Concrete Strengthened Steel Structures Design and Analysis Methodology Licensing Topical Report.” The NRC staff accepted the LTR for review on January 27, 2026.

This audit will be conducted in accordance with the guidance provided in the Office Instruction LIC-111, Revision 2, “Regulatory Audits.”

II. OBJECTIVES

The NRC staff will seek clarification, gain understanding, and verify information related to the subject LTR. The audit will identify if additional information is needed to support a regulatory finding so it can be placed on the docket. Additionally, review and discussion of the audit material will help focus on any subsequent requests for additional information.

III. REGULATORY AUDIT SCOPE

The audit team will examine supporting documentation provided by SMR (Holtec) in the online portal and will hold discussions during audit meetings. Audit topics include the initial information needs described below and any additional items identified during the audit.

IV. INFORMATION AND OTHER MATERIAL NECESSARY FOR THE REGULATORY AUDIT

The initial audit information needs include the issues/topics below. The audit team may identify additional questions and/or information needs that will be communicated to SMR (Holtec) throughout the audit. Refer to Enclosure 2 (ML26033A014, proprietary) for additional information regarding the issues/topics listed below.

- 1) Provide the following documents included as supporting references in the LTR Section 14.0: References [1], [31], [32], [34], [35], [36], [44], [45], [46], and [47].
- 2) Provide documentation that contains evidence of the prototype tests, results, and conclusions intended to confirm the design and analysis approaches as discussed in Section 13.0, "Experimental Evaluations." The NRC staff also requests an opportunity to observe one of the future planned Concrete-Strengthened Steel Module (CSSM) tests, if feasible.
- 3) Provide clarification regarding footnote 1 in Section 1.4.2 of the LTR. Footnote 1 does not appear to have been addressed in the LTR, steel-plate composite standard or other existing literature, nor does it appear to have been included in the planned in the SMR-300 large-scale experimental evaluations in Section 13.0.
- 4) Provide information addressing requirements for pre-service structural integrity testing of the prototype CSSM-steel hybrid containment in accordance with applicable provisions of Article CC-6000 of the adapted American Society of Mechanical Engineers (ASME) Code, Section III, Division 2. The LTR should address structural integrity testing requirements for the prototype CSSM hybrid containment.
- 5) LTR Section 11.0 appears to lack clarity and detail in distinguishing between fabrication, construction testing, and examination requirements between containment and non-containment applications of CSSM. Also, the LTR does not appear to provide any details of inservice inspection of CSSM portion of containment. Furthermore, there are apparent inconsistencies in the use of appropriate codes and standards that are endorsed in regulatory guidance for containment and non-containment safety-related (seismic Category I) structures. For example, for concrete in non-containment structures, ACI 349 is the appropriate standard and for containment application, the appropriate standard is ASME Section III, Division 2. Also, ACI 349-23 is referenced in the LTR for which the parent code is ACI 318-14, and not ACI 318-25. Likewise, for concrete materials in containment application, the appropriate code is ASME Section III, Division 2 and not ACI 318-25. The NRC staff requests clarification regarding these issues.
- 6) LTR Section 2.1.8, "10 CFR Part 50, Appendix S - Earthquake Engineering Criteria for Nuclear Power Plants," addresses the safe shutdown earthquake. However, the LTR makes no mention of how operating basis earthquake (OBE) requirements, with respect to required plant shutdown and applicability of OBE load combinations, will be met.

The NRC staff requests information regarding how these requirements would be addressed.

- 7) LTR Section 2.2, "U.S. NRC Regulatory Guides," does not identify Regulatory Guide (RG) 1.136, Revision 4, which endorses with regulatory guidance positions the 2019 edition of the ASME Section III, Division 2, for concrete containments. Sections 4.0 and 6.3 of the LTR reference the 2023 edition of ASME Code, Section III, Division 2 for the below grade portion of containment design using CSSMs. The NRC staff requests information regarding whether SMR (Holtec) considered if the adapted construction code in the LTR methodology needs to be supplemented with the regulatory guidance in RG 1.136 (e.g., design, ultimate capacity, combustible gas loading conditions, concrete material) to the extent applicable to CSSM steel-concrete composite vessel without rebar or tendons.
- 8) LTR Section 1.3, "Overview of SMR-300 Structures," states SMR-300 features a dual unit configuration with the Reactor Auxiliary Building shared by both units. The NRC staff requests clarification regarding whether SMR (Holtec) considered addressing General Design Criterion 5, "Sharing of structures, systems and components," in the design, from structures point of view.

V. SPECIAL REQUESTS

The NRC staffs requests that SMR (Holtec) provide subject matter expert(s), if necessary, to discuss the details of the audit material.

VI. LOGISTICS AND DELIVERABLES

Entrance Meeting: February 11, 2026
Exit Meeting: July 31, 2026 (date approximate)

The audit team will hold audit calls and/or meetings with SMR (Holtec), as necessary, to understand audit material. The team will inform SMR (Holtec) of any emerging information needs.

An audit summary will be issued within 90 days following the exit meeting. The NRC point of contact for this audit is Victoria Huckabay at Victoria.Huckabay@nrc.gov.