



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

September 3, 2025

Prakash Narayanan
Chief Technical Officer
TN Americas LLC
7135 Minstrel Way, Suite 300
Columbia, MD 21045

SUBJECT: AMENDMENT NO. 4 TO CERTIFICATE OF COMPLIANCE NO. 1042 FOR THE
NUHOMS® EOS SYSTEM (DOCKET NO. 72-1042, CAC NO. 001028,
ENTERPRISE PROJECT IDENTIFIER L-2022-LLA-0017)

Dear Mr. Narayanan:

As requested by your application dated September 29, 2022 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML22272A575), as supplemented in letters dated March 30, 2023 (ML23089A175), June 28, 2023 (ML23179A120), April 22, 2024 (ML24113A307), November 6, 2024 (ML24311A209), and February 12, 2025 (ML25043A122), enclosed is Amendment No. 4 to Certificate of Compliance (CoC) No. 1042 for the NUHOMS® EOS System. The amended certificate constitutes the U.S. Nuclear Regulatory Commission's (NRC's) approval for use of the NUHOMS® EOS System for storage of spent nuclear fuel under the general licensing provisions of Title 10 of the *Code of Federal Regulations* Part 72, Subparts K and L, subject to the conditions in the amended certificate. This amendment revises the CoC for the NUHOMS® EOS System to include the following changes:

Change No. 1:

For the EOS-37PTH, incorporate the maximum allowable heat load configuration (MHLC), a method to determine new loading patterns based on the maximum allowable heat load per dry shielded canister (DSC). Two new heat load zone configurations are applicable to this MHLC for EOS-37PTH transferred in the transfer cask EOS-TC125 and stored in the EOS-HSM (horizontal storage module).

Change No. 2:

Introduce a steel-plate composite (SC) option of EOS HSM, EOS-HSM-SC, which allows for the HSM components to be constructed from concrete-filled integrated steel wall forms.

Change No. 3:

Introduce the use of MAVRIC software for a confirmatory run of the HSM-MX (NUHOMS® MATRIX HSM) dose rates.

Change No. 4:

Technical Specification (TS) changes for consistency among DSC types and terminology clarification.

Change No. 5:

Various editorial corrections to updated final safety analysis report (UFSAR) for consistency and clarification.

Change No. 6:

Add measured exposures from past loading campaigns to highlight that measured exposures are significantly less than calculated exposures.

Additional Scope Change No. 1:

Allow the use of a blended Portland cement that would be certified to the requirements of American Society for Testing and Materials C595. Update and provide clarifying languages in UFSAR.

Additional Scope Change No. 6:

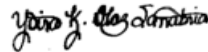
Address the use of the Matrix Loading Crane for the 61BTH Type 2 DSCs in UFSAR.

Additional Scope Change No. 8:

Clarify the scenarios under which the maximum heat loads can be reduced for EOS-37PTH, and update UFSAR and TS.

As stated in the *Federal Register* (90 FR 35589, July 29, 2025), the effective date of this CoC is October 14, 2025. The NRC safety evaluation report for this amended CoC (including the CoC itself and TS) is enclosed. If you have any questions regarding this amended certificate, please contact Yen-Ju Chen at (301) 415-1018.

Sincerely,



Signed by Diaz-Sanabria, Yaira
on 09/03/25

Yaira Diaz-Sanabria, Chief
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No.: 72-1042
CAC No.: 001028
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Enclosures:

1. Final CoC No. 1042, Amendment No. 4
2. Final Technical Specifications
3. Final Safety Evaluation Report

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DATED: September 3, 2025

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| DATE: | 8/1/2025 | 8/1/2025 | 9/3/2025 |

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