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

July 15, 2025

Mr. Timothy J. Tate, Manager
Environmental, Health, Safety and Licensing
Framatome, Inc.
2101 Horn Rapids Road
Richland, WA 99354

SUBJECT: AMENDMENT REQUEST FOR THE CERTIFICATE OF COMPLIANCE NO. 9319, MODEL NO. MAP-12, MAP-13 PACKAGES, REQUEST FOR ADDITIONAL INFORMATION

Dear Mr. Timothy Tate:

By letter dated March 7, 2025, (Agencywide Documents Access and Management System Accession No. ML25066A133), as supplemented on May 30, 2025 (ML25150A381), Framatome, Inc, submitted an application for a revision of the Certificate of Compliance No. 9319 for the Model No. MAP-12, MAP-13 package. The U.S. Nuclear Regulatory Commission (NRC) staff performed an acceptance review of your amendment request and determined it contains sufficient technical information in scope and depth to allow the staff to complete a detailed technical review. The staff has determined that the following request for additional information (RAI) is needed to continue its review.

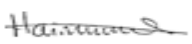
In order to schedule our technical review, we request that you provide responses to the RAI enclosed within 30 days of the issuance of this letter. If unable to meet this response date, please notify us, at least 1 week prior to the due date, of your new submittal date and the reasons for the delay. If you are not able to respond within this timeframe or the RAI responses do not provide sufficient information, our review may be delayed.

In accordance with Title 10 of the *Code of Federal Regulation*s Part 2, “Agency Rules of Practice and Procedure,” a copy of this letter will be available electronically for public inspection in the NRC Public Document Room (PDR) or from the Publicly Available Records component of the NRC’s ADAMS. ADAMS is accessible from the NRC website at http://www.nrc.gov/reading-rm/adams.html. The PDR is open by appointment. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

Please reference Docket No. 71-9319 and Enterprise Project Identifier Number L-2024-LLA-0084 in future correspondence related to this request. If you have any questions regarding this matter, I may be contacted via email at Haimanot Yilma at haimanot.yilma@nrc.gov or at 301-415-5286.

The staff is available to clarify the question, and, if necessary, to meet and discuss your proposed responses.

Sincerely,



Signed by Yilma, Haimanot
on 07/15/25

Haimanot Yilma, Project Manager
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9319
CAC: 1029
EPID L-2024-LLA-0084

Enclosure:
1. Request for Additional Information

SUBJECT: AMENDMENT REQUEST FOR THE CERTIFICATE OF COMPLIANCE NO. 9319, MODEL NO. MAP-12, MAP-13 PACKAGES, REQUEST FOR ADDITIONAL INFORMATION DATED: July 15, 2025

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ADAMS Accession No.: ML25182A353

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DATE	07/01/2025	07/02/2025	07/07/2025	07/14/2025	07/14/2025
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NAME	HYilma				
DATE	07/15/2025				

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Request for Additional Information
for Framatome Map 12 and 13 Transportation Cask
Certificate of Compliance No. 9319
Docket No. 71-9319
Revision 15

This request for additional information (RAI) identifies information needed by the staff in connection with its review of the Framatome, Inc. Model No. Map 12 and 13 transportation packages.

Chapter 6: Criticality Evaluation for 14x14 through 17x17 Fuel Arrays Up to 8.0 wt. % U-235

Cr 1: Provide a detailed justification of the current gadolinium (Gd) rod placement assumptions.

Title 10 of the *Code of Federal Regulations* (10 CFR) 71.55(e)(1) requires that to determine subcriticality under hypothetical conditions the fissile material is in the most reactive credible configuration consistent with the damaged condition of the package and the chemical and physical form of the contents.

While performing confirmatory calculations, the U.S. Nuclear Regulatory Commission staff observed a possibly more reactive configuration of Gd rod placement within some single package models. For example, figure 6-14: “Type 15.1a Fuel Assembly with 14 Gd Rods, Design Basis” displays a model used to determine criticality safety. The Gd rod placement of each fuel assembly is the same, translated from one assembly to the other. Through confirmatory calculations, the reactivity of the system may be greater with a mirrored, instead of transposed, Gd rod placement. The possibility of this type of Gd rod loading is not addressed within the rules described in section 6.4.2.1.2 “Gd-Rod Loading.” The Gd rod placement rules described address assembly reactivity while the mirroring of rod placement would be total package reactivity.

At higher enrichments, because many of the criticality evaluations are close to the upper safety limit, a small change in “k_{safe}” may necessitate different Gd rod requirements.

This information is needed to ensure that the package design meets the criticality safety requirements for packages under 10 CFR Part 71.