



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

June 19, 2018

Framatome Inc.
Attn: Timothy J. Tate
2101 Horn Rapids Road
Richland, WA 99354

SUBJECT: REVISION NO. 10 OF CERTIFICATE OF COMPLIANCE NO. 9319, FOR THE
MODEL NOS. MAP-12 AND MAP-13 TRANSPORTATION PACKAGES

Dear Mr. Tate:

As requested by your letter dated June 12, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18166A180), enclosed is Certificate of Compliance No. 9319, Revision No. 10, for the Model Nos. MAP-12 and MAP-13 transportation packages. Changes made to the enclosed certificate are indicated by vertical lines in the margin. The staff's safety evaluation report is also enclosed.

Framatome Inc. is now registered as the certificate holder for this package. The approval constitutes authority to use the package for shipment of radioactive material and for the package to be shipped in accordance with the provisions of Title 49 of the *Code of Federal Regulations* (49 CFR) 173.471. Those on the attached list have been registered as users of the package under the general license provisions of 10 CFR 71.17 or 49 CFR 173.471.

If you have any questions regarding this certificate, please contact me or Bernard White of my staff at (301) 415-6577.

Sincerely,

/RA/

John McKirgan, Chief
Spent Fuel Licensing Branch
Division of Spent Fuel Management
Office of Nuclear Material Safety
and Safeguards

**Enclosure 3 transmitted herewith
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this document is uncontrolled.**

Docket No. 71-9319
EPID No. L-2018-LLA-0164

Enclosures: 1. Certificate of Compliance No. 9319, Rev. No. 10
2. Safety Evaluation Report
3. Registered Users

cc w/encls 1 & 2: R. Boyle, DOT
J. Shuler, DOE-SRNL c/o L.F. Gelder
Registered Users

~~OFFICIAL USE ONLY – SECURITY RELATED INFORMATION~~

SUBJECT: REVISION NO. 10 OF CERTIFICATE OF COMPLIANCE NO. 9319, FOR THE MODEL NOS. MAP-12 AND MAP-13 TRANSPORTATION PACKAGES, DOCUMENT DATE: June 19, 2018

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Closes EPID No. L-2018-LLA-0164

ADAMS PKG: ML18172A052 Ltr&SER: ML18172A048

Encl. 1: ML18172A047

Encl. 3: ML18172A049

OFC	DSFM	DSFM	DSFM	DSFM	DSFM
NAME	BWhite	SFiguroa via email	VWilson via email	TAhn via email	DTang via email
DATE	6/15/2018	6/18/2018	6/18/2018	6/18/2018	6/18/2018
OFC	DSFM	DSFM	DSFM	DSFM	
NAME	TTate via email	CMarkley for HGonzalez via email	YDiaz-Sanabria via email	JMcKirgan	
DATE	6/18/2018	6/18/2018	6/19/2018	6/19/2018	

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SAFETY EVALUATION REPORT
Docket No. 71-9319
Model Nos. MAP-12 and MAP-13
Certificate of Compliance No. 9319
Revision No. 10

SUMMARY

By letter dated June 12, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18166A180), Framatome Inc., (or the applicant) requested changes to the drawings so that as-built packages will meet the drawings listed in the certificate of compliance. The applicant requested 39 different changes to drawings. The changes can be grouped into three distinct type of changes: fabrication tolerance mismatch on the nylon in the flux trap, revision to weld symbols, and typographical errors in the drawings. NRC reviewed the changes, as discussed below and determined that the changes do not affect the ability of the packages to meet the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 71. The certificate has been updated to Revision No. 10.

EVALUATION

Attachment A of the amendment request provides a summary and justification for the 39 drawing changes. These changes are documented in the 8 revised drawings as listed in Section 1.3.1, Package Drawings, located in Appendix D to the amendment request. The staff reviewed the justifications provided for the individual changes against the drawings and the package performance and noted that many of the changes are primarily editorial or administrative for documenting the as-built condition of the test units and production units.

Specifically, the staff reviewed the as-built conditions dealing with changes in size and material grade of the parts called out in the bill of materials and determined that they would incur minute differences in the structural performance of the packaging. Similarly, because of multiple redundancies of the load carrying paths associated the welds, the as-built welds would not adversely affect the effectiveness of the packaging structural performance.

The new Note 26 on Drawing No. 9045393, Rev. 7, specifies that the minimum thickness of the nylon may be up to 0.03 inches (0.762 mm) less than the dimensions shown in the bill of materials on the drawing. In Section 6.5.4.1.3 of the safety analysis report dated November 8, 2017 (ADAMS Accession No. ML17317A756), the applicant reduced the nylon thickness in the criticality model by 2 mm (0.787 inches) smaller than the dimensions shown in Drawing No. 9045393, Rev. 6. In addition TN Americas LLC (the previous certificate holder) performed a sensitivity study on the nylon density from full density nylon to 0 percent density. The sensitivity study shows that the nylon density would have to be reduced to greater than 20 percent before the maximum k_{eff} of the array of packages increased above the upper subcritical limit of 0.94. Given these results, reducing the minimum thickness of the nylon by 0.03 inches does not affect the ability of the package to meet the criticality requirement in 10 CFR Part 71.

CONDITIONS

The following changes were made to the certificate of compliance:

The description of the packaging was revised to delete the specific thicknesses of the outer shell and the stainless steel shell between the two middle stiffeners.

The drawing revisions were incremented by one and the company name on the drawings was changed from AREVA NP, Inc., to Framatome Inc.

The references section was updated to include request.

CONCLUSION

Based on the statements and representations in the application, the staff finds that these changes do not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9319, Revision No. 10,
on 6/19/18.