

**CERTIFICATE OF COMPLIANCE  
FOR RADIOACTIVE MATERIAL PACKAGES**

1. a. CERTIFICATE NUMBER <b>9305</b>	b. REVISION NUMBER <b>10</b>	c. DOCKET NUMBER <b>71-9305</b>	d. PACKAGE IDENTIFICATION <b>USA/9305/B(U)F-96</b>	PAGE <b>1</b>	PAGES <b>OF 4</b>
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2. PREAMBLE

- a. This certificate is issued to certify that the package (packaging and contents) described in Item 5 below meets the applicable safety standards set forth in Title 10, Code of Federal Regulations, Part 71, "Packaging and Transportation of Radioactive Material."
- b. This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be transported.

3. THIS CERTIFICATE IS ISSUED ON THE BASIS OF A SAFETY ANALYSIS REPORT OF THE PACKAGE DESIGN OR APPLICATION

- a. ISSUED TO (*Name and Address*)  
**Orano Federal Services LLC  
505 South 336<sup>th</sup> Street, Suite 400  
Federal Way, WA 98003**
- b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION  
**AREVA Federal Services LLC  
application dated August 19, 2013, as supplemented.**

4. CONDITIONS

This certificate is conditional upon fulfilling the requirements of 10 CFR Part 71, as applicable, and the conditions specified below.

5.

(a) Packaging

- (1) Model No.: TRUPACT-III Package
- (2) Description

A package used to transport transuranic waste contained in a Standard Large Box 2 (SLB2) primarily by highway trucks. The packaging body is a rectangular box with an external width of 2,500 mm (98.4 inches), external height of 2,650 mm (104.3 inches), and an external length of 4,288 mm (168.8 inches). The internal cavity dimensions are 1,840 mm (72.4 inches) wide, 2,000 mm (78.7 inches) tall, and 2,790 mm (109.8 inches) long.

The TRUPACT-III packaging is comprised of the containment structural assembly (CSA) made from 8-mm inner and outer stainless-steel plates with 4-mm thick V-shaped stiffeners in between. A debris shield receptacle is located all around the open end of the CSA inner cavity. The receptacle is a 26-mm x 38-mm cross section bar with a 15-mm wide by 20-mm deep groove cut along its length. The 109 - 120-mm polyurethane foam, 10-mm thick puncture resistant stainless steel plate, 60-mm balsa wood layer, and the 6-mm stainless steel skin form the integral energy-absorbing overpack structure. A 409-mm deep octagonal recess in the bottom end with 6-mm thick stainless steel plate, a 60-mm thick balsa wood layer, a 15-mm or 16-mm thick puncture-resistant stainless steel plate, and a 120-mm thick foam layer protect the bottom end of the packaging during drops or punctures.

A rectangular closure lid made from 4-mm thick V-shaped stiffeners sandwiched between an inner and an outer 12-mm thick stainless steel plate is attached to the packaging body

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5.(a) Packaging (continued)

by 44 socket head cap screws and contains two elastomer O-ring face seals. A sampling/vent port with elastomer O-ring seals is recessed into the closure lid. The inner stainless steel plates of the closure lid and the body along with the inner elastomer O-ring seal, the sampling/vent port insert, and the sampling/vent port inner elastomer O-ring seal form the single containment boundary.

An overpack cover is designed to protect the closure lid. The outer face of the overpack cover contains an octagonal recess 393 mm deep. The cover structure consists of a 6-mm thick stainless steel cover sheet plate encasing a 60-mm thick layer of balsa wood, a 15-mm or 16-mm thick puncture resistant stainless steel plate, a 120-mm thick layer of polyurethane foam, and a 6-mm thick inner stainless steel cover plate. The edges of the overpack cover consist of an inner 6-mm stainless steel plate, a 42-mm thick layer of calcium silicate insulation, a 15-mm or 16-mm thick puncture-resistant stainless steel plate, a 380-mm thickness of 0.48 kg/dm<sup>3</sup> polyurethane foam, a 6-mm thick puncture-resistant stainless steel plate, a 140-mm thick layer of 0.16 kg/dm<sup>3</sup> polyurethane foam, and an 8-mm thick external stainless steel plate.

The approximate dimensions and weights of the package are as follows:

Overall package outside dimensions	
Width	2,500 mm (98.4 inches)
Length	4,288 mm (168.8 inches)
Height	2,650 mm (104.3 inches)
Maximum content weight	5,210 kg (11,486 lbs)
Maximum package weight (Including contents)	25,000 kg (55,116 lbs)

(3) Drawings

The packaging is constructed in accordance with AREVA Federal Services LLC, Drawing No. 51199-SAR, Rev. 15, sheets 1 through 21.

(b) Contents

(1) Type and form of material

Dewatered, solid or solidified transuranic contaminated materials and wastes, any particle size, large objects, and bulky objects are directly loaded into an SLB2 to be placed in a TRUPACT-III packaging, in accordance with TRUPACT-III TRAMPAC, Revision 2.

(2) Maximum quantity of material per package

The TRUPACT-III packaging is designed to transport contact-handled transuranic (CH-TRU) waste and other authorized payloads that do not exceed 10<sup>5</sup> A<sub>2</sub> quantities. No more than

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5.(b) Contents (continued)

325 grams of Pu-239 fissile gram equivalent (FGE) is generally allowed per TRUPACT-III package. Per the TRUPACT-III TRAMPAC, Revision 2, the FGE limit per TRUPACT-III package may be increased if the payload is documented to contain Pu-240. A TRUPACT-III payload shall not contain greater than 1 percent by weight beryllium and/or beryllium oxide nor machine compacted waste. Only one SLB2 may be loaded in a TRUPACT-III package at a time.

(3) Maximum decay heat per package not to exceed 80 watts.

5.(c) Criticality Safety Index (CSI):

0

6. The package is for transport of the CH-TRU materials and other authorized payloads that are limited in form to solid or solidified material. Materials must be restricted to prohibit explosives, corrosives, nonradioactive pyrophorics, and pressurized containers. Within a payload container, radioactive pyrophorics must not exceed 1 percent by weight, and residual liquid volumes greater than 1 percent are prohibited.
7. Limits for physical, nuclear, chemical, and gas generation properties shall be as defined in the TRUPACT-III TRAMPAC, Revision 2.
8. Hydrogen must be limited to a molar quantity that would be no more than 5% by the volume of the innermost layer of confinement during transport.
9. Each payload shipping container must be assigned to a shipping category in accordance with TRUPACT-III TRAMPAC, Revision 2, Section 5.0.
10. The gas generated in the payload and released into the cavity shall be controlled to maintain the pressure within the containment vessel below the acceptable Maximum Normal Operating Pressure of 25 psig.
11. Venting and aspiration are required to the TRUPACT-III containers stored in an unvented condition prior to transport, to ensure equilibration of gases that may have accumulated in the closed container in accordance with TRUPACT-III TRAMPAC, Revision 2, Section 5.3.
12. In addition to the requirements of Subpart G of 10 CFR Part 71:
  - (a) Each package shall be operated and prepared for shipment in accordance with Chapter 7 of the application, as supplemented.
  - (b) Each package shall be acceptance tested and maintained in accordance with Chapter 8 of the application, as supplemented.

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- 13. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.17.
- 14. Transport by air of fissile material is not authorized.
- 15. Expiration date: July 31, 2020.

REFERENCES

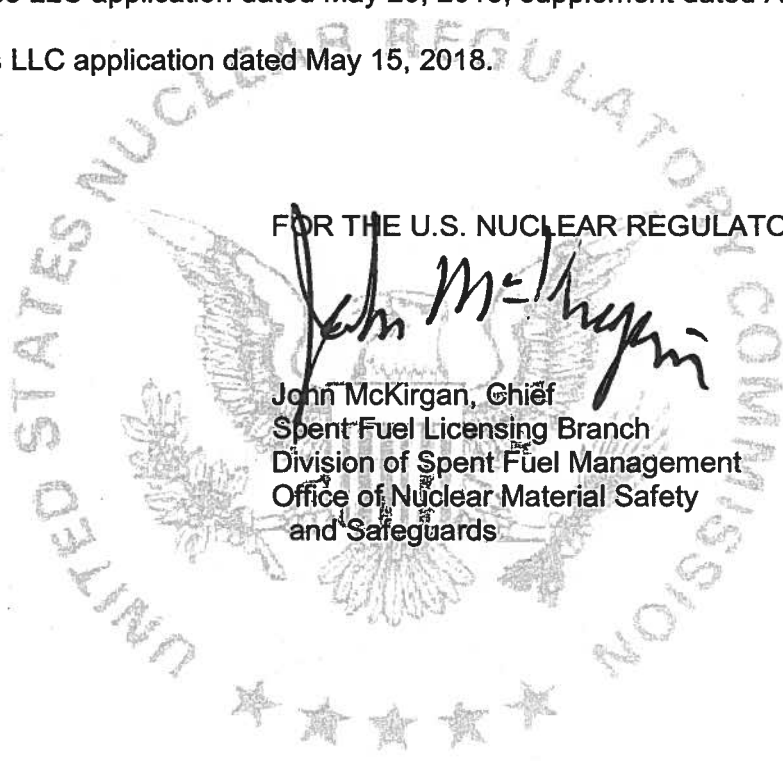
AREVA Federal Services LLC application dated May 20, 2015, supplement dated August 19, 2013.

Orano Federal Services LLC application dated May 15, 2018.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

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

Date: 6/19/2018





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

**SAFETY EVALUATION REPORT**  
**Docket No. 71-9305**  
**Model No. TRUPACT-III Package**  
**Certificate of Compliance No. 9305**  
**Revision No. 10**

**SUMMARY**

By application dated May 15, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18145A102), Orano Federal Services LLC requested the U.S. Nuclear Regulatory Commission (NRC) to reissue the Certificate of Compliance (CoC) No. 9305, for the Model No. TRUPACT-III package, by revising its legal name from AREVA Federal Services LLC (AREVA) to Orano Federal Services LLC (Orano). Orano did not request any changes to the package design or its authorized contents. The certificate has been reissued reflecting the new Corporate name.

**EVALUATION**

The staff considered the Corporate name change from AREVA to Orano as administrative in nature. On May 8, 2018 (ADAMS Accession No. ML18130A605), Orano submitted a revision to its Quality Assurance Program Description for NRC approval, and included this new Corporate name change. The Corporate name change did not affect the ability of the package to meet the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 71. Therefore, the NRC staff found the name change to be acceptable, and reissued the CoC.

**CONDITIONS**

The following changes have been made to the CoC:

Item 3.a, was revised to change the name from AREVA Federal Services LLC to Orano Federal Services LLC.

The references section was updated to include the letter requesting the new Corporate name.

**CONCLUSION**

The certificate has been reissued reflecting the Corporate name change. Based on the statements contained in the application, and the condition listed above, the staff concludes that the change indicated does not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9305, Revision No. 10,  
on June 19, 2018.