NRC FORM 618
(8-2000)
10 CFR 71

U.S. NUCLEAR REGULATORY COMMISSION

CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIAL PACKAGES

a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE		PAGES
9184	13	71-9184	USA/9184/B(U)	1	OF	3

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
32125 32nd Ave S Suite 220
Federal Way, WA 98003

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION

Nuclear Packaging, Inc., consolidated application dated March 31, 1989, 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.: PAS-1

(2) Description

The packaging consists of a primary containment vessel (20.5" OD x 23.4" OH) enclosed inside a secondary containment vessel and radiation shield (32.5" OD x 39.0" OH). The 15 milliliter water sample is contained within a undefined sample cask. Additionally, four iodine collection cartridges and four offgas vials are maintained inside the foam shoring above the sample cask. Loose vermiculite surrounds the perimeter of the sample cask to absorb the water sample should leakage occur. Completely surrounding the secondary containment vessel and radiation shield is a foam filled steel encased overpack (48.0" OD x 66.0" OH) which provides impact and thermal protection.

The primary containment vessel, which is constructed of 304 stainless steel varying in thickness from 3/4" to 1.25", is provided with double Viton O-ring seals and a sealed test port between the seals for leak testing. The assembly is secured with eight, 3/8"-16 UNC x 8" long screws.

The secondary containment vessel and radiation shield provides 0.75" thick steel and 5.1" thick lead shielding in the radial direction, 2.0" thick steel and 5.1" thick lead shielding on the bottom, and 3.5" thick steel and 4.8" thick lead shielding on the top. The lid is secured with eight, 1.0"-8 UNC x 3.0 long bolts. The lid is sealed with two Viton O-rings with a sealed test port between the seals for leak testing.

5.(a) Packaging Continued

(2) Description continued

The overpack provides about 7.25" thick foam on the sides and about 13" on the top and bottom. The two halves of the overpack are held together by eight, 3/4"-10 UNC x 1.5" long bolts. A Neoprene gasket prevents rain water from entering the overpack.
The weight of the package including a maximum sample cask weight of 1,375 pounds, is about 12,800 pounds.

(3) Drawings

The package is constructed in accordance with Nuclear Packaging, Inc. Drawing No. X-20-218D, Sheets 1 and 2, Rev. C.

(b) Contents

(1) Type and form of material

(i) Radioactive material in form of liquid or gaseous samples in sample casks, cartridges and vials.

(ii) Byproduct and activation materials as solids and process solids or resins, either dewatered, solid, or solidified in secondary containers.

(2) Maximum quantity of material per package

50 Ci of mixed fission and activation products, 15 milliliters of liquid, one sample cask or secondary container and four cartridges and four vials.

6. In addition to the requirements of Subpart G of 10 CFR Part 71, each package prior to first use must meet the acceptance tests and criteria specified in Section 8.1, must be maintained in accordance with Section 8.2, and must be prepared for shipment in accordance with Chapter 7.0 of the application, and the supplement dated July 8, 1994.

7. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.17, provided the fabrication of the packaging was satisfactorily completed by April 1, 1999.

8. Transport by air of fissile material is not authorized.

9. Expiration date: July 31, 2029.

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REFERENCES

Nuclear Packaging, Inc., consolidated application dated March 31, 1989.

VECTRA Technologies, Inc., supplement dated: July 8, 1994.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Signed by Diaz-Sanabria, Yoira
on 06/27/24

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

Date: June 27, 2024

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

SAFETY EVALUATION REPORT
Docket No. 71-9184
Model No. PAS-1 Package
Certificate of Compliance No. 9184
Revision No. 13

SUMMARY

By application dated April 30, 2024 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML24122C649), Orano Federal Services, LLC requested renewal of the Certificate of Compliance No. 9184, for the Model No. PAS-1 package. Orano Federal Services, LLC did not request any changes to the package design or its authorized contents. The certificate has been renewed for a five-year term.

EVALUATION

The staff reviewed the documents referenced in the certificate and determined that the documentation was available and complete. (ML20248H034, ML20070J474)

CONDITIONS

Item No. 3.a was revised with the new address of the certificate holder.

Condition No. 9 has been updated to reflect the new expiration date.

The references section of the certificate was revised to remove the Nuclear Packaging, Inc supplement dated April 7, 1989, superseded with Quality Assurance Program Approval No. 0938 (ML21351A226). Remove past ownership transfers and CoC timely renewals: VECTRA Technologies, Inc., supplement dated: January 30, 1998, Transnuclear, Inc., supplement dated January 30, 1998, Packaging Technology, Inc., supplements dated: April 30, 1999, March 16, 2004, and November 26, 2007, AREVA Federal Systems, LLC, supplements dated: June 12, 2009, October 31, 2011, and May 21, 2014. Orano Federal Services, LLC application dated May 15, 2018. These removed references do not change the package design or its authorized contents.

CONCLUSION

The certificate has been renewed for a 5-year term, which expires on July 31, 2029. Based on the statements contained in the application, and the conditions listed above, the staff concludes that the changes indicated do not affect the ability of the package to meet the requirements of Title 10 of the *Code of Federal Regulations* Part 71.

Issued with Certificate of Compliance No. 9184, Revision No. 13.