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
9187	13	71-9187	USA/9187/B(U)-96	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)*

QSA Global, Inc.
40 North Avenue
Burlington, MA 01803

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION

QSA Global, Inc. application dated April 10, 2023, 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.: 865

(2) Description

A steel encased, uranium shielded radiographic exposure device 5" OD x 12.25" long. The device is provided with a handle and two triangular shaped legs. Primary components consist of an outer steel shell, internal bracing, depleted uranium shield, and a source tube. The contents are securely positioned in the source tube by a source holder assembly and actuator and locking assembly. Tamper-indicating seals are provided on the packaging and a 0.12-inch thick steel outer cover is bolted over the source actuator and locking assembly for additional protection during transport. The maximum total weight of the package is 60 pounds.

(3) Drawings

The packaging is constructed in accordance with QSA Global Drawing No. R86590, Sheets 1 through 7, Rev. M.

The package user should reference QSA Global, Inc., Drawing No. R865-User, Revision B, sheets 1-2.

5.(b) Contents

(1) Type and form of material:

Iridium-192 as sealed source must meet the requirements of special form radioactive material.

(2) Maximum quantity of material per package:

240 curies (8.9 TBq) (output)

Output curies are determined by measuring the source output at 1 meter and expressing its activity in curies derived from the following: 0.48 R/(h-Ci) Iridium-192 at 1 meter, (Ref: American National Standard N432-1980, "Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography").

6. In addition to the requirements of Subpart G of 10 CFR Part 71:

(a) The package shall be prepared for shipment and operated in accordance with the Operating Procedures in Section 7 of the application, as supplemented.

(b) Each packaging shall be maintained in accordance with the Maintenance Program in Section 8 of the application, as supplemented.

7. The packaging authorized by this certificate is hereby approved for use under the general license provision of 10 CFR 71.17.

8. Revision No. 12 of this certificate may be used until March 31, 2024.

9. Expiration date: March 31, 2029.

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REFERENCES

QSA Global, Inc., application dated April 10, 2023.

Supplement(s) dated:

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Signed by Diaz-Sanabria, Yoira
on 08/15/23

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

Date: August 15, 2023

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

SAFETY EVALUATION REPORT

Docket No. 71-9187
Model No. 865
Certificate of Compliance No. 9187
Revision No. 13

SUMMARY

By application dated April 10, 2023 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML23102A041), QSA Global, Inc. (QSA) requested renewal of Certificate of Compliance (CoC) No. 9187 for the Model No. 865 shipping package. In addition, QSA requested the package description in condition No. 5(a)(2) of the certificate of compliance be modified. The U.S. Nuclear Regulatory Commission staff reviewed the application using the guidance in NUREG-2216, “Standard Review Plan for Transportation Packages for Spent Fuel and Radioactive Material." Based on the statements and representations in the application, as supplemented, the staff agrees that these changes do not affect the ability of the package to meet the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 71. The certificate has been renewed for a five-year term.

STAFF EVALUATION

The applicant did not request any changes to the package design or authorized contents. However, the applicant made changes to every safety analysis report chapter and provided a table identifying the changes made with the application. The applicant stated that these changes are minor formatting, editorial or clarification revisions which have no significant impact on the package performance or continued compliance for type B transport. The staff reviewed the changes. The staff determined that the changes are editorial, e.g., correcting erroneous numbers in calculations, formatting, e.g., using upper case letters in figures and tables versus lower case letters, and clarification, e.g., adding American National Standards Institute/International Standardization Organization special form capsule performance test information. Therefore, the staff finds the changes acceptable.

The applicant updated the package drawings and provided a table identifying the changes made with the application. After reviewing these changes, the staff determined that the changes are either editorial or formatting in nature, e.g., moving fractional tolerances from the “Notes” into the "UNLESS OTHERWISE SPECIFIED" portion of the drawing block on sheets 1, 3 and 7 of package drawing R86590 and renumbered the notes as necessary. Therefore, the staff finds them acceptable.

The applicant requested that section 5(a)(2) of the CoC be revised to remove the dimensions associated with the package handle and the package legs. The applicant stated that these values are not specified on the approved package drawing R86590 revision L. The staff reviewed the package drawings submitted with the application as well as the package drawings in revision 13 of the SAR. The staff confirmed that package drawing R86590 identifies neither the handle dimensions nor the leg dimensions. Because the purpose of section 5(a)(2) is to provide a general description of the package, the staff determined that these dimensions are not required to understand the package configuration. Therefore, the staff finds this change acceptable.

The applicant requested that section 5(a)(2) of the CoC also be revised to state that the package weight is (maximum) versus the current description of "approximately 59 pounds." The applicant asserted that the CoC should be revised to be consistent with note 1 on sheet 1 of the approved drawing R86590, revision L which identifies the maximum package weight as 60 pounds. In reviewing the SAR, the staff identified multiple locations that stated the maximum package weight is 60 pounds. In addition, the staff determined that the applicant applied a 649 pound compression load to two packages, or approximately 324 pounds per package, to demonstrate compliance with 10 CFR 71.71(c)(9). Since the regulations in 10 CFR 71.71(c)(9) require a compressive load greater than 5 times the weight of the package, the staff finds reasonable assurance that increasing the package weight specified in section 5(a)(2) is acceptable.

The staff reviewed the documents referenced in the certificate and determined that the documentation was available and complete. The staff also reviewed the operating and maintenance procedures for the package and found them to be adequate. In addition, the CoC is revised to update the revision number, remove unnecessary change bars, and make editorial changes.

CONDITIONS

The CoC includes the following condition(s) of approval:

Condition 3(b) was revised to identify the application date.

Condition 5(a)(2) was revised to modify the package description.

Condition 5(a)(3) was revised to identify the latest drawing revision.

Condition 8 was revised to identify the length of time that revision 12 can be utilized.

Condition 9 was revised to identify the new expiration date.

The references section has been updated to include this request.

CONCLUSION

The certificate has been renewed for a five-year term that expires on March 31, 2029. This change does not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with CoC No. 9187, revision No. 13 on August 15, 2023