

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



August 13, 2015

Ms. Lori Podolak
Regulatory Affairs Department
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803

SUBJECT: REVISION NO. 6 OF CERTIFICATE OF COMPLIANCE NO. 9314 FOR THE
MODEL NO. 976 SERIES TRANSPORTATION PACKAGES

Dear Ms. Podolak:

As requested by your application dated July 29, 2015, enclosed is Certificate of Compliance No. 9314, Revision No. 6, for the Model No. 976 Series 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.

This 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 10 CFR 71.17 or 49 CFR 173.471.

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

Sincerely,

/RA/

Michele Sampson, Chief
Spent Fuel Licensing Branch
Division of Spent Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9314
TAC No. L25042

Upon removal of Enclosure 3,
this document is uncontrolled.

Enclosures: 1. Certificate of Compliance
No. 9314, Rev. No. 6
2. Safety Evaluation Report
3. Registered Users

cc w/encls: R. Boyle, Department of Transportation
J. Shuler, Department of Energy, c/o L. F. Gelder

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ADAMS Package No.: ML15226A501 LTR: ML15226A521 CoC: ML15226A527
Enclosure 3: ML15226A528

OFC:	DSFM	DSFM	DSFM	DSFM	DSFM	DSFM	DSFM
NAME:	BWhite	MDeBose via email	DTang via email	DTarantino via email	ACsontos via email	CAraguas via email	MSampson
DATE:	8/10/15	8/ 11 /15	8/10/15	8/11/15	8/11/15	8/11/15	8/13/15

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**SAFETY EVALUATION REPORT
Docket No. 71-9314
Model No. 976 Series
Certificate of Compliance No. 9314
Revision No. 6**

SUMMARY

By application dated July 29, 2015, QSA Global, Inc. (QSA), requested an amendment to Certificate of Compliance No. 9314, for the Model No. 976 Series transportation packages. QSA requested the certificate be revised to include updated drawings to ensure that as-built packages conform to the drawings referenced in the certificate of compliance or for added drawing clarity and accuracy. Note that a condition of the general license in Title 10 of the Code of Federal Regulations (10 CFR) 71.71 is that the general licensee must comply with the terms and conditions of the certificate, which include ensuring that the package is fabricated in accordance with the drawings referenced in the certificate of compliance.

1.0 GENERAL INFORMATION

QSA, requested revision of Certificate of Compliance No. 9314, for the Model No. 976 Series transportation packages. The applicant submitted four revised drawings and one new drawing. Drawing Nos. R1911 Revision G, R97608 Revision J, R85590 Revision H, and R3056 Revision G were revised. New Drawing No. R97600 Revision B consolidated drawings R976A, R976C, R976F, R97615, R97615-I, R97615-2, R97616, R97623, R97623A and R97637 into a single drawing. Staff reviewed Drawing No. R97600 Revision B to ensure that it accurately consolidates the drawings into one. Additionally Drawing No. R97600 Revision B contains changes as described in the letter from QSA.

2.0 STRUCTURAL EVALUATION

The objective of the structural evaluation is to verify that the structural performance of the package, with the changes provided in the application, will not be compromised under the normal conditions of transport and hypothetical accident conditions.

As noted in the summary table of changes to Model No. 976 Series drawings, for all proposed changes, QSA listed change locations, evaluated impact of the changes on the units previously or currently in use under this certificate, and made determinations whether the changes were made for either increased drawing clarity and accuracy or to ensure that as-built packages conform to the drawings in the certificate. The changes that affected the structural review primarily dealt with weld design.

The staff reviewed the impacts of the weld design changes on the package by examining the structural strength demand of the welds being revised and their materials. The staff noted that those welds were either sized with large safety margins or not located in the load path, such as the fillet welds introduced to the 3056 Shield Unit Top Hat, in resisting inertia loads in the free drop testing for hypothetical accident conditions. Therefore, the staff has reasonable assurance to conclude that the weld revisions shown on the drawings have no adverse effects on the structural

performance of the Model No. 976 Series packages for meeting the requirements of Title 10 of the Code of Federal Regulations (10 CFR) Part 71.

The staff finds that the changes requested by the amendment meets the regulatory requirements in 10 CFR Part 71 for mitigating galvanic or chemical reactions, is unaffected by cold temperatures, and is constructed with materials and processes in accordance with acceptable industry codes and standards.

Based on review of the statements and representations in the application, the staff concludes that the structural design has been adequately described and evaluated and that the package has adequate structural integrity to meet the requirements of 10 CFR Part 71.

CONDITIONS

Condition No. 5(a)(3) has been revised to delete Drawing Nos. R976A, R976C, R976F, R97615, R97615-I, R97615-2, R97616, R97623, R97623A and R97637 which were consolidated into Drawing No. R97600, Rev. B, sheets 1 – 4. The following drawings were revised:

R97608, Rev. J, sheet 1	20 Gallon Drum Model 976
RCLM009, Rev. C, sheet 1	Clamp, Band
R85590, Rev. H, sheets 1-6	Model 855 Source Changer
R3056, Rev. G, sheets 1-4	Model 3056 Shield Container Top Level Assy
R1911, Rev. G, sheets 1-6	Model 1911 Shield

The following drawing was added.

R97600, Rev. B, sheets 1 – 4 Model No. 976 Transport Package

Condition No. 8 has been updated to allow continued use of the previous revision for up to 1 year.

The references section has been updated to include this application.

CONCLUSION

Based on the statements and representations in the application, as supplemented, and with the conditions listed above, the staff agrees that with these changes, the package continues to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9314, Revision No. 6,
on August 13, 2015.