

~~OFFICIAL USE ONLY – SECURITY RELATED INFORMATION~~
UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001



June 19, 2014

Mr. Michael Fuller
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803

SUBJECT: CERTIFICATE OF COMPLIANCE NO. 6613, REVISION NO. 17, FOR THE
MODEL NO. 702 TRANSPORTATION PACKAGE

Dear Mr. Fuller:

As requested by your application dated June 11, 2014, enclosed is Certificate of Compliance No. 6613, Revision No. 17, for the Model No. 702 transportation package. Changes made to the enclosed certificate are indicated by vertical lines in the margin. The staff's safety evaluation report is also enclosed.

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 John Vera of my staff at (301) 287-9165.

Sincerely,

/RA/

Timothy Lupold, Acting Chief
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-6613
TAC No. L24927

Enclosures: 1. Certificate of Compliance
No. 6613, Rev. No. 17
2. Safety Evaluation Report
3. Registered Users

Upon removal of Enclosure 3, this
document is uncontrolled

cc w/encls 1&2: R. Boyle, Department of Transportation
J. Shuler, Department of Energy

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ADAMS P8 Package No.:14170B118

Letter No.: ML14170B128

OFC	SFST	SFST	SFST	SFST	SFST
NAME	JVera	MDeBose	RTorres	ACsontos	TLupold
DATE	6/13/14	6/13/14	6/18/14	6/19/14	6/19/14

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**UNITED STATES
NUCLEAR REGULATORY COMMISSION
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**SAFETY EVALUATION REPORT
Docket No. 71-6613
Model No. 702 Transportation Package
Certificate of Compliance No. 6613
Revision No. 17**

SUMMARY

By application dated June 11, 2014, QSA Global, Inc. (QSA) requested a minor amendment to Certificate of Compliance (CoC) No. 6613, for the Model No. 702 transportation package. QSA submitted this amendment to allow an additional material specification for the carbon steel tubing used for the cage frame described in Drawing No. R70290.

EVALUATION

By application dated June 11, 2014, QSA Global, Inc. (QSA) requested a minor amendment to Certificate of Compliance (CoC) No. 6613, for the Model No. 702 transportation package. QSA submitted this amendment to allow an additional material specification for the carbon steel tubing used for the cage frame described in Drawing No. R70290.

The material currently specified on Drawing No. R70290, Revision W, is steel tubing 1-1/4 square with 0.120 wall made per ASTM A513-08a, Type 1b or 2. Contrary to this requirement, QSA Global, Inc.'s, supplier has been providing material certified to ASTM A513 AWHR.

Staff reviewed the mechanical properties of ASTM A513-08a Type 1a and Type 1b and finds they are the same for a given carbon steel. As such, the structural capability and performance under regulatory normal conditions of transport and hypothetical accident conditions would have been the same with either Type 1a or 1b. Type 1b is more corrosion resistant since it is: (1) descaled and (2) pickled and oiled. The small particles of the mill scale (Type 1a) can enhance galvanic (localized) corrosion, since the mill scale is cathodic to the steel. However, the applicant states the tubing is painted prior to shipment, which serves to minimize the oxidizing environment.

In addition to this change, the staff is correcting an error in the certificate of compliance, Section 5.(b)(2), which states the maximum quantity of material as "Output Activity." By a previous application dated December 12, 2013, and subsequent interactions with NRC staff, QSA has indicated that these amounts should be "Content Activity," for all contents except Ir-192. QSA requested in that application to allow 6,500 Ci of Ir-192, to be specified as output activity. While the review of that application is not currently complete, the staff is revising the amount of Ir-192 to 6,500 Ci as output activity, with the conditions that the sources will be cylindrical in geometry with dimensions not to exceed 4 mm height and 4 mm diameter with optional steel encapsulation that does not exceed 0.5 mm, since the staff finds that such sources are bounded by the analyses and information so far provided by QSA.

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

CONDITIONS

The conditions specified in the certificate of compliance have been revised to incorporate several changes as indicated below:

Condition 5.(a)(3) updates Drawing No. R70290 to Revision X.

Condition 5.(b)(2) has been updated to correct the maximum quantity of material per package specified as "Content Activity" for all isotopes except Ir-192, which has been updated to allow 6,500 Ci as output activity for certain geometries.

The References section has been updated to include this amendment request, as well as previous supplements dated December 12, 2013, and April 24, 2014.

CONCLUSION

Based on the statements and representations in the application, as supplemented, and the conditions listed above, the staff concludes that the changes do not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 6613, Revision No. 17.