

December 15, 2005

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

SUBJECT: CERTIFICATE OF COMPLIANCE NO. 9314 FOR THE MODEL NO. 976
SERIES PACKAGE

Dear Ms. Podolak:

As requested by letter dated December 6, 2005, as supplemented December 13 and December 15, 2005, enclosed is Certificate of Compliance No. 9314, Revision No. 2, for the Model No. 976 Series package. Changes made to the enclosed certificate are indicated by vertical lines in the margin. The staff's Safety Evaluation Report is also enclosed.

QSA Global, Inc., is registered as the certificate holder for this package. 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 49 CFR 173.471.

If you have any questions regarding this certificate, please contact me or Shawn Williams of my staff at (301) 415-8500.

Sincerely,

/RA/

Robert A. Nelson, Chief
Licensing Section
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9314
TAC No. L23932

Enclosures: 1. Certificate of Compliance
No. 9314, Rev. No. 2
2. Safety Evaluation Report

cc w/encls: R. Boyle, Department of Transportation
J. Shuler, Department of Energy
RAMCERTS

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SAFETY EVALUATION REPORT

Docket No. 71-9314
Model No. 976 Series Package
Certificate of Compliance No. 9314
Revision No. 2

SUMMARY

By letter dated December 6, 2005, as supplemented December 13 and December 15, 2005, QSA Global, Inc., (QSA) requested a revision to Certificate of Compliance (CoC) No. 9314 for the Model No. 976 Series package. Specifically, QSA requested to increase the maximum package weights for the Model Nos. 976B, 976C, 976D, and 976E. The applicant also submitted a consolidated application for the package.

EVALUATION

By application dated December 6, 2005, as supplemented, QSA requested a revision to CoC No. 9314 to increase the maximum package weights for the:

- (1) Model No. 976B from 180 lbs to 190 lbs.
- (2) Model No. 976C from 180 lbs to 190 lbs.
- (3) Model No. 976D from 180 lbs to 190 lbs.
- (4) Model No. 976E from 212 lbs to 226 lbs.

No design changes were requested. QSA states that the requested increase in weights are necessary because they did not adequately account for component weight tolerance stack ups during fabrication in their maximum package weight assessments. Therefore, the requested increased maximum weights are based on actual component weight measurements.

The approval for the 976 series of packages were based on both physical testing (30 ft and puncture tests) and analysis. The physical testing was performed on the heavier models, Model No. 976A and 976F at gross weights ranging from 278 lbs to 300 lbs. None of the tested shield containers experience any damage from the drop testing which adversely affected the source containment. In all cases the source securing mechanisms were not observably changed after testing and the shield containers were protected from any external damage by the cushioning provided by the cork drum liners. The testing on the heavier models represented worst case extremes, therefore, it was reasonable to assess that damage induced to the shield containers for the heavier models would be more extensive than would be produced for the lighter shield containers (Model Nos. B, C, D, and E).

Based on the results of the Normal and Hypothetical accident physical testing performed on the heaviest worst case specimens in combination with no design changes, staff concludes that the small increase in the maximum weights requested does not affect the ability of the package to meet the requirements of 10 CFR Part 71.

The staff also reviewed the consolidated application and concluded that the application incorporated the previous references to the SAR.

The following changes were made to the Certificate:

Condition No. 3.a. has been revised to reflect the Certificate Holder's new name from AEA Technology/QSA, Inc., to QSA Global, Inc.

Condition No. 3.b. has been revised to reflect the consolidated application submittal.

Condition No. 5.(a)(2) has been revised to reflect the increase in maximum package weights.

Condition No. 5.(a)(3) has been revised to reflect the revised drawings that specified the maximum allowable package weights.

Condition No. 5.(b)(2) has been revised to clarify the derivation of the maximum quantity of Iridium-192 in terms of output curies, and to include the corresponding radioactivity in units of terabecquerel.

Condition No. 11. was added to authorize use of the previous revision of the certificate for a period of approximately one year.

The Reference Section has been revised to include the consolidated application and additional supplements.

CONCLUSION

For the reasons stated in this Safety Evaluation Report, the staff concludes that the proposed changes do not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9314, Revision No. 2 on
December 15, 2005.