March 17, 2010

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR REVIEW OF THE MODEL NO. 680-OP PACKAGE

Dear Ms. Podolak:

By letter dated February 22, 2010, QSA Global, Inc. (QSA) submitted a renewal request for the Model No. 680-OP package with a consolidated Safety Analysis Report including changes related to staff's 10 CFR 71.95 evaluation report dated October 28, 2009. QSA requested that the package review include consideration of NUREG-1886, "Joint Canada – United States Guide for Approval of Type B(U) and Fissile Material Transportation Packages."

In connection with the staff's review, we need the information identified in the enclosure to this letter. We request that you provide this information by April 15, 2010. Please inform us at your earliest convenience, but no later than April 2, 2010, if you are not able to provide the information by that date. To assist us in re-scheduling your review, you should include a new proposed submittal date and the reasons for the delay.

Please reference Docket No. 71-9035 and TAC Nos. L24423 and L24425 in future correspondence related to this request. The staff is available to meet to discuss your proposed responses. If you have any questions regarding this matter, I may be contacted at (301) 492-3408.

Sincerely,

/RA/

Pierre Saverot, Project Manager
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9035
TAC Nos. L24423, L24425

Enclosure: Request for Additional Information

cc w/encl: E. Redmond, NEI

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR REVIEW OF THE MODEL NO. 680-OP PACKAGE

Dear Ms. Podolak:

By letter dated February 22, 2010, QSA Global, Inc. (QSA) submitted a renewal request for the Model No. 680-OP package with a consolidated Safety Analysis Report including changes related to staff's 10 CFR 71.95 evaluation report dated October 28, 2009. QSA requested that the package review include consideration of NUREG-188, "Joint Canada – United States Guide for Approval of Type B(U) and Fissile Material Transportation Packages."6

In connection with the staff's review, we need the information identified in the enclosure to this letter. We request that you provide this information by April 15, 2010. Please inform us at your earliest convenience, but no later than April 2, 2010, if you are not able to provide the information by that date. To assist us in re-scheduling your review, you should include a new proposed submittal date and the reasons for the delay.

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Request for Additional Information
QSA Global, Inc.
Docket No. 71-9035
Certificate of Compliance No. 9035
Model No. 680-OP

By letter dated February 22, 2010, QSA Global, Inc. (QSA) submitted a renewal request for the Model No. 680-OP package with a consolidated Safety Analysis Report including changes related to staff's 10 CFR 71.95 evaluation report dated October 28, 2009, further to a September 21, 2009, notification by QSA.

This request for additional information (RAI) identifies information needed by the U.S. Nuclear Regulatory Commission staff in connection with its review of the Model No. 680-OP package to determine whether the applicant has demonstrated compliance with 10 CFR Part 71 and the International Atomic Energy Agency, "Regulations for the Safe Transport of Radioactive Material," TS-R-1, 1996 Edition (as amended 2003). NUREG-1609, "Standard Review Plan for Transportation Packages for Radioactive Material," and NUREG-1886, "Joint Canada – United States Guide for Approval of Type B(U) and Fissile Material Transportation Packages," were used by the staff in its review of the application.

1-1 Remove the reference to the American Society for Testing and Materials (ASTM) A1018 Type C carbon steel from sheet 2 of licensing drawing R680-OP.

ASTM A1018 Type C carbon steel does not exist.

This information is needed to determine compliance with 10 CFR 71.33(a)(5)(iii) and 10 CFR 71.73(c)(1).

1-2 Justify why the steel brackets on sheet 5 and the "Plain Steel" hinge on sheet 7 of licensing drawing R680-OP on the overpack are not important to safety (NITS) on the package.

The steel brackets and hinges appear to keep the lid of the overpack attached, and would help prevent the projector from falling out of the overpack during an accident.

This information is needed to determine compliance with 10 CFR 71.33(a)(5)(iii).

1-3 Clarify what American Welding Society (AWS) welding codes are being referenced in note 3 on sheet 1 of licensing drawing R68090.

In the past the staff has accepted language such as, "All personnel, and welding qualifications, welding, examination, and repair will be conducted in accordance with AWS D1.1, AWS D1.3, and AWS D1.6, as applicable. Non-destructive examination of welds (other than visual inspection) will be called out on the licensing drawings."

Please note that this RAI was not included on the RAIs for the Model No. 741-OP projector, because that projector will no longer be fabricated.

This information is needed to determine compliance and 10 CFR 71.73(c)(1).

1-4 Clarify the non-destructive examination methods used to examine the welds on the Model No. 680-OP overpack and projector.

Depending on the importance of the weld, an inspection technique other than visual inspection may be required.

This information is needed to determine compliance with 10 CFR 71.33(a)(5)(iii).

1-5 Specify the minimum properties of A1008, A1011, and A1018 steel, as listed on sheet 2 of licensing drawing R680-OP.

The A1008, A1011, and A1018 steel specifications do not list mandatory minimum mechanical properties. QSA Inc., requires minimum mechanical properties for these steels, as stated on the 10 CFR 71.95 report dated September 21, 2009, for the Model No. 680-OP. Since A1008, A1011, and A1018 do not require these minimum properties, the minimum yield strength, tensile strength, elongation, and maximum carbon content should be stated in a way which is incorporated in the Certificate of Compliance by reference.

The staff understands that, in the past, these minimum properties were controlled by QSA's internal quality control program, however, one of the reasons industrial codes are specified on the licensing drawings is so that minimum mechanical properties are mandated, and cannot be reduced without NRC approval.

This information is needed to determine compliance with 10 CFR 71.33(a)(5)(iii) and 10 CFR 71.73(c)(1).

1-6 Clarify or specify a widely recognized industry standard for the structural steel components on the projector (e.g., the retaining bar on sheet 5 of licensing drawing R68090).

It is not clear from the licensing drawings if the structural steel components used to construct the projector meet the requirements of A1008, A1011, A1018, or any widely recognized industry standard,

A widely recognized industry standard should mandate the characteristics for all safety-related structural components on the projector.

This information is needed to determine compliance with 10 CFR 71.33(a)(5)(iii) and 10 CFR 71.73(c)(1).

1-7 Specify an industrial specification, such as the American Society for Testing and Materials (ASTM) for the fasteners listed on sheet 2 of licensing drawing R68090 for the new projectors.

The fasteners shown on sheet 2 of licensing drawing R68090 are important to safety, but do not have an industrial specification associated with them.

This information is needed to determine compliance with 10 CFR 71.73(c)(1).

1-8 As part of the maintenance program for the Model No. 680-OP overpack and projector, fasteners which are important to the safety and require replacement should be replaced by fasteners which meet a widely accepted industry standard (e.g., American Society for Testing and Materials).

The replacement fasteners should have mechanical properties that are superior or equal to the nominal properties of the fasteners currently in service.

This information is needed to determine compliance with 10 CFR 71.31(c).

1-9 Clarify the Safety Classification of the steel and stainless components used to fabricate the Posilock style lock assembly shown on sheets 6 and 7 of licensing drawing R68090. Alternatively, specify industrial standards (e.g., American Society for Testing and Materials) associated for these components. The Safety classification or industrial standard should be specified on the licensing drawings.

The Posilock assembly is important to safety, but there is no description of Safety Class or mention of industrial standard associated with these components.

This information is needed to determine compliance with 10 CFR 71.33(a)(5)(iii) and 10 CFR 71.73(c)(1).