QSA GLOBAL

QSA Global, Inc.
40 North Avenue
Burlington, MA 01803
Telephone: (781) 272-2000
Toll Free: (800) 815-1383
Facsimile: (781) 273-2216

14 July 2008

ATTN: Document Control Desk
Spent Fuel Project Office
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
One White Flint
Rockville, MD 20852

RE: USA/9187/B(U)-96 (Current Revision 7)

Dear Director:

This letter requests renewal of USA/9187/B(U)-96 for the Model 865 Type B package. The current certificate for this package expires on 31 December 2008.

A review of the current Type B certificate revealed a few minor variances in the description of the package under Section 5(a)(2) when compared against the currently approved package drawing referenced in Section 5(a)(3). For consistency we suggest the following modifications to the description in Section (a)(2) when the certificate is renewed:

1. Section 5(a)(2) currently describes the package as "approximately 59 lbs". Drawing R86590 Rev G (and the enclosed Rev H) accurately lists the package weight as a "maximum 60 lbs". We suggest the certificate description be revised to state "The maximum weight of the package is 60 lbs."

2. Section 5(a)(2) currently describes the package as "5" OD". Drawing R86590 Rev G (and the enclosed Rev H) accurately lists the package OD as 5 ¼" We suggest the certificate description be revised to state the package OD as 5 ¼".

3. Section 5(a)(2) currently describes the handle dimension as "9.25" long". Drawing R86590 Rev G (and the enclosed Rev H) accurately specifies the handle dimension as "9 ½" long". We suggest the certificate description be revised to state handle dimension as 9 ½" long.

4. Section 5(a)(2) currently describes the package feet dimensions as "1.38" x 5.5"". Drawing R86590 Rev G (and the enclosed Rev H) accurately describes the package feet as "2 ¼" x 5 ¾" long". We suggest the certificate description be revised to state package feet dimensions as 2 ¼" x 5 ¾" long.

Prior to this renewal request, we performed a comparison of the approval documentation for the Model 865 package against the production documentation for this container. This review identified some minor discrepancies in the referenced drawing which were evaluated and found to have no significant adverse affect on the safety or integrity of the package. This discrepancies have been corrected in the enclosed Revision H of drawing R86590 and their review and impact assessment are included in the enclosed comparison table.

NMSS01

This amendment will make no change to the tested construction of these components and will comply with all assemblies manufactured since the original approval of this Type B certificate. This amendment is submitted for clarification purposes only and will only more accurately describe the construction of these components on Type B(U) containers currently in use under this certificate.

Since this is technically an alteration to the current drawings reference under this certificate, we are submitting this amendment request to also serve as compliance with the reporting requirements of 10 CFR 71.95. Amendment to the referenced Type B(U) certificate will complete correction of the typographical discrepancies noted and accurately document all historical fabrication of the 865 container assemblies by users of the package. There is no resulting safety significance associated with these corrections. We are investigating the root cause(s) which allowed submission of the original discrepancy and are taking appropriate comprehensive corrective and preventive actions to prevent recurrence of similar issues.

Since this correction has no safety significance on the package operation or use by registered users of the CoC, no action has been taken or is recommended by QSA for routine users of this package related to this change. Control and inspection of this package is controlled under the production drawings for the 865 package under QSA Global's NRC QA Program 71-0040.

At this time there are no further changes or modifications necessary to this Type B approval. Should you have any additional questions or wish to discuss this submission after receipt please contact me.

Sincerely,

Lori Podolak

Lori Podolak
Senior Regulatory Affairs Specialist
RA/QA Department
Ph: (781) 505-8241
Fax: (781) 359-9191
Email: Lori.Podolak@qsa-global.com

C. Rogers — RA/QA Approval — 14 Jul 08 — Date

Dan K. — Engineering Approval — 14 Jul 08 — Date

Enclosure: R86590 Rev H
Drawing Change Review Table R86590 Rev G to Rev H

cc:

Mr. Eric Benner, Chief
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
11555 Rockville Pike, Mailstop: EBB-3D-02M
Rockville, MD 20852

Summary Table of Changes to Drawing R86590 Rev G to Rev H

Change Location	Summary Change	Change Reported Pursuant to 71.95	Impact of Change on Units Previously or Currently in Use under the Certificate	Action Taken By QSA Regarding Affected Units[1]
All Sheets where Applicable	Removed notations on weld specifications referencing "VT" inspection. This requirement is covered for all weld symbols on this drawing under Note 2 on Sheet 1 of Rev H.	No	No change to package construction or design. Notation change added for clarity only.	None. Not applicable.
Sheet 1	Revised the format of Note 2 to incorporate the current standardized format for describing welding requirement references.	No	No change to package construction or design. Detail added for completeness and clarity only.	None. Not applicable.
Sheet 1	The material for the pop rivets used to attach the name plate to the package was incorrectly specified on Revision G of the drawing. Revision G states the pop rivets are made from 304 stainless steel. In actuality, pop rivets are not obtainable from standard suppliers in the 304 grade of stainless steel. Procurement of these pop rivets has only ever required the material to be "stainless steel".	Yes	Test specimens and subsequent production units were manufactured using stainless steel pop rivets. The pop rivets are important to the package to ensure the name plate remains attached to the package after undergoing the Hypothetical Accident condition Thermal test in 10 CFR 71.73(c)(4). Pop rivets manufactured of any grade of obtainable stainless steel will meet this criteria.	No action has been taken or is recommended by QSA for routine users of this package related to this correction.
Sheet 2	Added weld specification of the actuator base to the upper shield collar. This weld has always been present on the Model 865 package, but its details had not been shown previously on the drawing submitted for the Type B approval.	No	No change to package construction or design. Test specimens and subsequent production units were manufactured to this specification. Detail added for completeness and clarity only.	None. Not applicable.

Summary Table of Changes to Drawing R86590 Rev G to Rev H

Change Location	Summary Change	Change Reported Pursuant to 71.95	Impact of Change on Units Previously or Currently in Use under the Certificate	Action Taken By QSA Regarding Affected Units[1]
Sheet 2	Added 1/16 fillet weld specification of the lock holder to the upper shield collar. This weld has always been present on the Model 865 package, but its details had not been shown previously on the drawing submitted for the Type B approval.	No	No change to package construction or design. Test specimens and subsequent production units were manufactured to this specification. Detail added for completeness and clarity only.	None. Not applicable.
Sheet 2	Revised the 1/8 fillet weld symbol to show flag on the correct side. Prior specification was in error.	No	No change to package construction or design. Test specimens and subsequent production units were manufactured to this specification. Detail added for completeness and clarity only.	None. Not applicable.
Sheet 4	Added material and dimensions for the source tube for this package. The source tube material and specifications had not been described previously on this drawing.	No	No change to package construction or design. Detail added for completeness and clarity only. Test specimens used to demonstrate compliance to the normal and hypothetical accident transport conditions, and subsequent production units, were manufactured compliant to these criteria.	None. Not applicable.
Sheet 4	Added silver solder attachment of the source tube to the actuator base and silver solder of the source tube end cap to the source tube. These fabrication requirements had not been described previously on this drawing.	No	No change to package construction or design. Detail added for completeness and clarity only. Test specimens used to demonstrate compliance to the normal and hypothetical accident transport conditions, and subsequent production units, were manufactured compliant to these criteria.	None. Not applicable.

Summary Table of Changes to Drawing R86590 Rev G to Rev H

Change Location	Summary Change	Change Reported Pursuant to 71.95	Impact of Change on Units Previously or Currently in Use under the Certificate	Action Taken By QSA Regarding Affected Units[1]
Sheet 4	Added notation regarding welding of set screw on actuator base assembly after installation. This weld has always been present on the Model 865 package, but its details had not been shown previously on the drawing submitted for the Type B approval.	No	No change to package construction or design. Test specimens and subsequent production units were manufactured to this specification. Detail added for completeness and clarity only.	None. Not applicable.
Sheet 4	Added reference to loctite on bill of material and indicated its use on the socket head screw on the lock. This material has always been used on the lock assembly and its reference is added for completeness	No	No change to package construction or design. Detail added for clarity only.	No new change/no impact. No action necessary.
Sheet 4	Added reference to vibratite on bill of material and indicated its use on the source engagement plate screws. This material has always been used on these screws and its reference is added for completeness	No	No change to package construction or design. Detail added for clarity only.	No new change/no impact. No action necessary.
Sheet 4	The 0.781 dim on section B-B of the lock holder/actuator base has been revised to specify this dimension as 0.78 inches. This dimension is not critical to the design requiring accuracy to three decimal places.	No	No change to package construction in use, modification to reflect importance of dimensional specification only. Previous fabrication will comply with new dimensional specification.	None. Not applicable.
Sheet 4	Added detail for 3/8 drill, ¼ deep on one side to the 2nd view (Section B-B) of the lock holder/actuator base depiction. This feature has always been on this part and its specification is added for completeness.	No	No change to package construction or design. Detail added for clarity only.	No new change/no impact. No action necessary.

Summary Table of Changes to Drawing R86590 Rev G to Rev H

Change Location	Summary Change	Change Reported Pursuant to 71.95	Impact of Change on Units Previously or Currently in Use under the Certificate	Action Taken By QSA Regarding Affected Units[1]
Sheet 4	The material for the compression spring used in the actuator body assembly was incorrectly specified on Revision G of the drawing. Revision G states the compression spring is made from 304 stainless steel. Procurement of this spring has only ever required the material to be "stainless steel".	Yes	Test specimens and subsequent production units were manufactured using stainless steel pop rivets. The compression spring serves no package integrity function during transport as the source rod is maintained in the shielded/secured position by the locking rod. The compression spring impacts the operation of the Model 865 as a radiography exposure device. It has no safety reliant impact on the Model 865 as a Type B(U) transport container.	No action has been taken or is recommended by QSA for routine users of this package related to this correction.
Sheet 4	The material for the 6-32 x ½ long screws used on the source engagement plate were incorrectly specified on Revision G of the drawing. Revision G states these screws are made from 304 stainless steel. Procurement of these screws has only ever required the material to be "stainless steel".	Yes	Test specimens and subsequent production units were manufactured using stainless steel screws. The 6-32 screws serve no package integrity function during transport as the source rod is maintained in the shielded/secured position by the locking rod. The screws impact the operation of the Model 865 as a radiography exposure device. It has no safety reliant impact on the Model 865 as a Type B(U) transport container.	No action has been taken or is recommended by QSA for routine users of this package related to this correction.
Sheet 4	Section B-B view of lock holder/actuator base shows an 82°counter sink on the 0.312 diameter. This counter sink for device fabrication has always been 60°.	Yes	Test specimens and subsequent production units were manufactured with the 60 ° counter sink.	No action has been taken or is recommended by QSA for routine users of this package related to this correction.

Summary Table of Changes to Drawing R86590 Rev G to Rev H

Change Location	Summary Change	Change Reported Pursuant to 71.95	Impact of Change on Units Previously or Currently in Use under the Certificate	Action Taken By QSA Regarding Affected Units[1]
Sheet 4	The material for the socket head screw used to attach the end stop to the locking rod were incorrectly specified on Revision G of the drawing. Revision G states these screws are made from 304 stainless steel. Earlier revisions of the descriptive drawing for the Model 865 identified this screw as made from stainless steel. Since the screw's function is to attach the end stop to the locking rod, specification of this part as stainless steel is adequate to ensure package integrity. Procurement of these screws has only ever required the material to be "stainless steel"	Yes	Test specimens and subsequent production units were manufactured using stainless steel screws. The socket head screw serves no package integrity function during transport as the source rod is maintained in the shielded/secured position by the locking rod. The screw impacts the operation of the Model 865 as a radiography exposure device. It has no safety reliant impact on the Model 865 as a Type B(U) transport container.	No action has been taken or is recommended by QSA for routine users of this package related to this correction.
Sheet 4	The material for the actuator body plug has been revised from 304 stainless steel to 300 Series stainless steel. The plug's function is to attach the air hoses to the device in operation. This component is an off-the shelf item and is typically manufactured to 300 Series stainless steel, not specifically to 304 stainless steel. This change is to more accurately reflect the material requirements for this part as previously used in fabrication and testing.	Yes	Test specimens and subsequent production units were manufactured using 300 Series stainless steel plugs. The plug serves no package integrity function during transport as the source rod is maintained in the shielded/secured position by the locking rod and the actuator assembly is protected by the shipping cover and actuator guard. The plug impacts the operation of the Model 865 as a radiography exposure device. It has no safety reliant impact on the Model 865 as a Type B(U) transport container.	No action has been taken or is recommended by QSA for routine users of this package related to this correction.
Sheet 5	1/8-27 UNF change to 1/8-27NPTF since this is the proper specification for a pipe thread	No	No change to package construction or design. Detail added for clarity and accuracy only.	No new change/no impact. No action necessary.

Summary Table of Changes to Drawing R86590 Rev G to Rev H

Change Location	Summary Change	Change Reported Pursuant to 71.95	Impact of Change on Units Previously or Currently in Use under the Certificate	Action Taken By QSA Regarding Affected Units[1]
Sheet 5	Weld corrected from 1/16 fillet to 3/16 fillet weld to more accurately reflect construction of this weld for packages under the approval.	Yes	No change to package construction or design. Test specimens and subsequent production units were manufactured to this specification. Detail added for completeness and clarity only. The actuator body weld shown serves no package integrity function during transport it has no impact on the source securement and provides no significant support to the package in drop orientations. The actuator assembly is protected by the shipping cover and actuator guard. The attachment welded to the actuator body cylinder impacts the operation of the Model 865 as a radiography exposure device by allowing attachment of air hoses to the device for operation. It has no safety reliant impact on the Model 865 as a Type B(U) transport container	None. Not applicable.
Sheet 6	The 1/8 dimension on the shield is revised to 3/16 to more accurately reflect construction of this dimension under the approval. Current production drawings for the shield comply with drawing R86590 Rev G for this dimension, but for consistency of specification, drawing R86590 Rev H has been revised to 3/16.	No	The change in this dimension will have not impact on the package integrity since all devices manufactured under the Type B approval require 100% radiation profiles to demonstrate shielding efficiency. Though this minor variation is not expected to have any impact on the shielding compliance of any future fabrication, any adverse impact would be identified during the final radiation profile of the device prior to acceptance for use as a Type B(U) container.	Implementation of this change will not occur until after amendment of the Type B CoC is received. This requested for future fabrication.

Summary Table of Changes to Drawing R86590 Rev G to Rev H

Change Location	Summary Change	Change Reported Pursuant to 71.95	Impact of Change on Units Previously or Currently in Use under the Certificate	Action Taken By QSA Regarding Affected Units[1]
Sheet 6	The specification for the depleted uranium shield weight modified from 40 ± 2 lbs to specify Maximum weight of 42 lbs.	No	The change in this specification will have not impact on the package integrity since all devices manufactured under the Type B approval require 100% radiation profiles to demonstrate shielding efficiency. A minimum shield weight is not applicable so long as the maximum shield weight is not exceeded and the final device radiation profile meets the acceptance criteria for use as a Type B(U) container. Any container that could not comply with the package dose rate requirements would be rejected under the QSA Global QA system.	Implementation of this change will not occur until after amendment of the Type B CoC is received. This requested for future fabrication.
Sheet 7	The 1/4 dimension on Section H-H of the shipping cover is revised to 9/32 to more accurately reflect construction of this dimension under the approval.	Yes	Test specimens and subsequent production units were manufactured to the 9/32 dimension. This change on the descriptive assembly drawing is for correction purposes only.	No action has been taken or is recommended by QSA for routine users of this package related to this correction.
Sheet 7	The 3/8 dimension on the actuator guard is revised to 13/32 to more accurately reflect construction of this dimension under the approval.	Yes	Test specimens and subsequent production units were manufactured to the 13/32 dimension. This change on the descriptive assembly drawing is for correction purposes only.	No action has been taken or is recommended by QSA for routine users of this package related to this correction.
Sheet 7	Bill of material added to this sheet to reflect material specifications for the shipping cover, actuator guard and actuator guard end plate.	No	No change to package construction or design. Detail added for clarity only.	No new change/no impact. No action necessary.

Summary Table of Changes to Drawing R86590 Rev G to Rev H

[1]QSA Global Inc. is currently pursuing additional internal investigations to enhance review/evaluation consistency and to augment our assessment and dedication processes for overall program improvement. These actions are also intended to prevent recurrence of similar issues for all packages approved under a CoC.

The corrections noted either have no safety significance on the package operation or use by registered users of CoC or will have no adverse impact on the package ability to continue to meet the Type B containment and transportation requirements. In all cases, no action has been taken or is recommended by QSA for routine users of this package since the changes have no significant safety impact on the package operation or use by registered users of CoC.

Figure Withheld Under 10 CFR 2.390

QSA GLOBAL 40 NORTH AVE, BURLINGTON, MA 01803		DESCRIPTIVE DRAWING
TITLE	MODEL 865 TYPE B PROJECTOR DESCRIPTIVE ASSEMBLY	
SIZE B	DWG. NO. R86590	REV H
	SCALE: NONE	SHEET 1 OF 8

Figure Withheld Under 10 CFR 2.390

QSA GLOBAL 40 NORTH AVE, BURLINGTON, MA 01803		DESCRIPTIVE DRAWING
TITLE	MODEL 865 TYPE B PROJECTOR DESCRIPTIVE ASSEMBLY	
SIZE B	DWG. NO. R86590	REV H
	SCALE: NONE	SHEET 2 OF 8

Figure Withheld Under 10 CFR 2.390

QSA GLOBAL 40 NORTH AVE, BURLINGTON, MA 01803		DESCRIPTIVE DRAWING	
TITLE	MODEL 865 TYPE B PROJECTOR DESCRIPTIVE ASSEMBLY		
SIZE B	DWG. NO. R86590		REV H
	SCALE: NONE	SHEET 3 OF 8	

Figure Withheld Under 10 CFR 2.390

QSA GLOBAL 40 NORTH AVE, BURLINGTON, MA 01803		DESCRIPTIVE DRAWING	
TITLE	MODEL 865 TYPE B PROJECTOR DESCRIPTIVE ASSEMBLY		
SIZE B	DWG. NO: R86590		REV H
	SCALE: NONE	SHEET 4 OF 8	

Figure Withheld Under 10 CFR 2.390

AEA TECHNOLOGY QSA 40 NORTH AVE, BURLINGTON, MA 01803		DESCRIPTIVE DRAWING	
TITLE	MODEL 865 TYPE B PROJECTOR DESCRIPTIVE ASSEMBLY		
SIZE B	DWG. NO. R86590		REV H
	SCALE: NONE	SHEET 5 OF 8	

Figure Withheld Under 10 CFR 2.390

AEA TECHNOLOGY QSA 40 NORTH AVE, BURLINGTON, MA 01803		DESCRIPTIVE DRAWING	
TITLE	MODEL 865 TYPE B PROJECTOR DESCRIPTIVE ASSEMBLY		
SIZE B	DWG. NO. R86590		REV H
	SCALE: NONE	SHEET 6 OF 8	

Figure Withheld Under 10 CFR 2.390

AEATECHNOLOGY QSA 40 NORTH AVE, BURLINGTON, MA 01803		DESCRIPTIVE DRAWING	
TITLE	MODEL 865 TYPE B PROJECTOR DESCRIPTIVE ASSEMBLY		
SIZE B	DWG. NO. R86590		REV H
	SCALE: NONE	SHEET 7 OF 8	

Figure Withheld Under 10 CFR 2.390

AEATECHNOLOGY QSA 40 NORTH AVE, BURLINGTON, MA 01803	DESCRIPTIVE DRAWING	
TITLE	MODEL 865 TYPE B PROJECTOR DESCRIPTIVE ASSEMBLY	
SIZE B	DWG. NO. R86590	REV H
	SCALE: NONE SHEET 8 OF 8	