



QSA GLOBAL

QSA Global, Inc.

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20 April 2018

Branch Chief
Spent Fuel Licensing Branch
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Division of Spent Fuel Management
Mailstop 3WFN-14A44
11555 Rockville Pike
One White Flint
Rockville, MD 20852

71-9314

RE: 10 CFR 71.95(a)(3) report for CoC number USA/9314/B(U)-96 and Certificate Amendment Request

Dear Sir or Madam:

QSA Global, Inc. is making a report under 10 CFR 71.95(a)(3) to identify a minor discrepancy in the package configuration for the Model 976A Type B package. A recent review of our Model 855 shield containers, which are used as components to the Model 976A package design, identified an inconsistency in the number of rivets used for attachment of the package nameplate when compared to the descriptive drawing (R85590 Revision H).

The descriptive drawing specifies attachment of the nameplate by (4) stainless steel rivets. During review of Model 855 serial number 10 for internal approval to use in future Model 976A Type B package shipments, it was identified that the label attachment did not fully comply with the current descriptive drawing. During the 855 evaluation, it was noted that instead of a one piece nameplate label, the label was in two parts. These two labels were attached using 8 stainless steel rivets instead of the specified 4 rivets on the descriptive.

Prior to their use in the Model 976A Type B package, the Model 855 shield containers had been approved as Type B independently under USA/9165/B(U). This certificate was replaced by the Model 976A Type B certificate in June of 2005 after the Model 855 lost its Type B status. At that time, the existing Model 855 container nameplates were to be replaced with a new nameplate that removed the old Type B transport identification information related to its prior approval.

It now appears that the nameplates for the Model 855 containers were not replaced with new nameplates when they were originally made a part of the Model 976A Type B package. Instead, it appears that the old Type B labels were removed from the Model 855 containers, and the sections specifying "Special Form, NOS, UN 2974" and "USA/9165/B(U) Type B" were cut off the label. This created two, smaller labels containing the remaining container information. These two labels were then re-attached to the Model 855 container. This required the use of 8 rivets to re-attach the modified label parts instead of the 4 rivets specified on the Type B drawing.

NM5501

Since the modified labels, once installed with the removed information, were "shorter" overall than the original label that had been attached to the unit, the rivet holes that had originally been used to secure the bottom of the old one piece label were left exposed after the label modification. In most cases, these holes in the outer shell of the 855 had been filled in by rivets. However, a review of Model 855s in current use identified some cases where some of the old rivet holes were left open and unfilled on the container. There was also some variability in the number of holes, external to the nameplate, that now existed on the different Model 855 containers. This ranged from the expected 2 holes up to as many as 7 holes on at least one container. It is believed that these additional rivet holes were caused over time in the replacement of nameplates where the placement did not fully line up with the pre-existing holes used for the old nameplates on the unit.

Labels attached using more than 4 stainless steel rivets will comply with the requirements of 71.85(c) ensuring the durable marking of the package as required. In addition, rivet holes previously used for label attachment which are filled by a stainless steel rivet or otherwise covered by a replacement label, will have no adverse impact on the Type B package integrity. The Model 855 is protected in the 976A transport package by means of an outer drum and cork inserts that completely surround the inner container. In all testing performed for the Model 976 Series transport packages, there was never any damage caused during the normal or hypothetical accident condition testing that could result in loss of containment or shield integrity even after consideration of the thermal test requirements. The use of additional stainless steel rivets for nameplate attachment as well as either filling old, unused label attachment holes that may be present on the Model 855 shield containers with stainless steel rivets (or covering them with a replacement nameplate), will continue to comply with the Type A and Type B transport requirements for the Model 976A package.

As of 19 April 2018, QSA Global, Inc. stopped all new shipments of the Model 976A package until an amendment can be obtained for the applicable Type B certification approvals.

Included with this letter we have submitted drawing R85590 Revision J to address the issue and change the rivet reference to specify a minimum of 4 rivets used on the container. A note has also been added to page 1 of the drawing to state that old label holes to be filled with stainless steel rivets or covered by the nameplate. The specification on descriptive drawing R85590 Revision H is overly restrictive in its current wording. By revising the descriptive drawing to more accurately reflect the level of detail required to meet the intent of 10 CFR, this issue is now corrected.

10 CFR 71.95 Root Cause Analysis and Corrective Actions to Prevent Recurrence

The issue was caused by an error in judgement made in 2005 when these units were originally converted for use as part of the Model 976A transport package. This was then further compounded by human error during routine container reviews prior to use. Staff performing these reviews assumed the label configuration and rivet use was acceptable since it had been in place, consistently this way for the Model 855 containers since their initial use as part of the 976A transport packages.

Staff involved in the inspection, loading and shipment of these containers will be re-trained on adherence to all applicable specifications, including undocumented additions or deviations not specifically covered in those specifications. This re-training will be completed prior to any individual being involved in any further inspection, loading and shipment of the Model 976A containing Type B quantities for transport.


QSA Global, Inc. considers this issue to be unique to the Model 855 device based on its specific operational history and change in Type B status which was implemented over 13 years ago. No further corrective action is believed necessary to ensure future compliance.



The issues identified in this letter did not contribute to any incidents or package failures related to the safe use of the Model 976A in transport. The corrective action taken is considered sufficient to prevent recurrence of the issue at this time.

This container is used consistently between QSA Global, Inc. and its facilities domestically as well as our distributors in foreign countries (e.g., Canada, South America, etc.). Its loss, even temporarily, produces a hardship in our ability to supply sources to users around the world. We would appreciate any, and all assistance you can give in the swift processing of this amendment. We ask that this amendment be processed first, and independently of the amendment we submitted in our application dated 26 March 18 unless both can be completed simultaneously without delaying the approval of this request.

Should you have any additional questions, or wish to discuss this issue or our amendment request, please contact me.

Sincerely,


e-Signed by Lori Podolak
on 2018-04-20 15:10:16 GMT
Lori Podolak
Senior RA/QA Specialist
Regulatory Affairs/Quality Assurance
Ph: (781) 505-8241
Fax: (781) 359-9191
Email: Lori.Podolak@qsa-global.com


e-Signed by Michael Fuller
on 2018-04-20 15:51:13 GMT
RA/QA Approval

e-Signed by Steve Grenier
on 2018-04-20 15:12:43 GMT
Engineering Approval

Enclosures: Drawing R85590 Revision H

cc: ATTN: Document Control Desk
Director, Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
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Rockville, MD 20852

Mr. Nishka Devaser
NRC Project Manager
NMSS/DSFM/SFLB

AFTER 30 OCT 2005

- 1. AWS D1.1 STRUCTURAL WELDING CODE - STEEL
- 2. AWS D1.6 STRUCTURAL WELDING CODE - STAINLESS STEEL
- 3. NOTES APPLY TO ALL PAGES.
- 4. MAXIMUM DEVICE WEIGHT - 225 LBS.
- 5. ALL HARDWARE TO MEET ASME B18 STANDARDS.
- 6. THIS ASSEMBLY IS NOT TO BE MANUFACTURED AFTER 01 JANUARY 2009 EXCEPT FOR PARTS IDENTIFIED AS SERVICE REPLACEABLE PARTS (SRP).

ERF#	APPROVALS	
3784		19 APR 18
		19 APR 18
		30 APR 2018



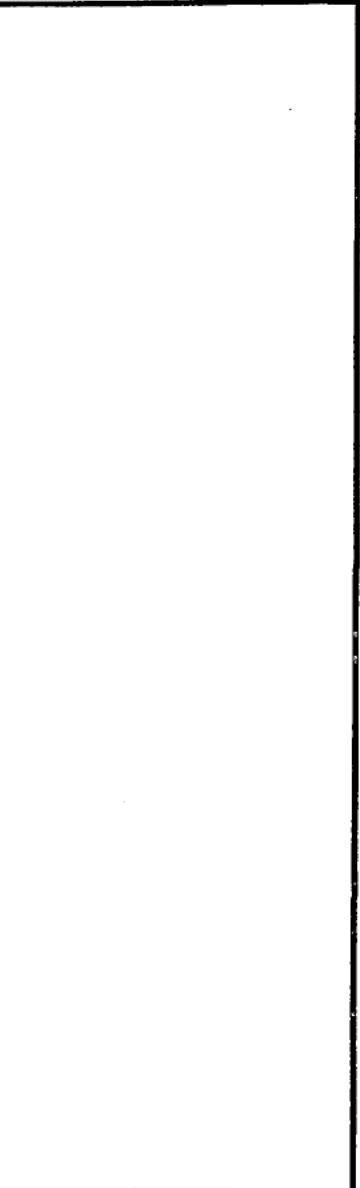
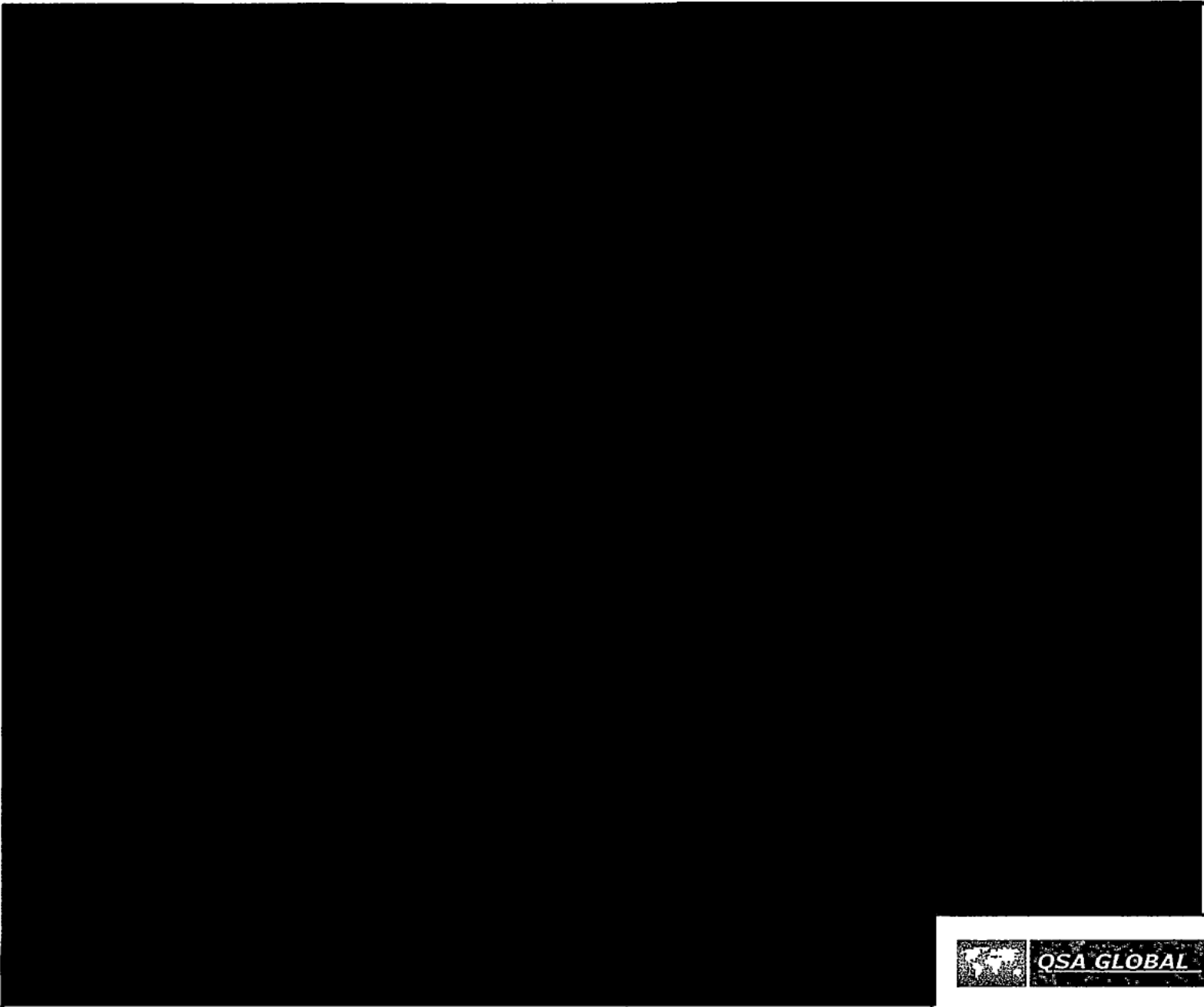
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DESCRIPTIVE
DRAWING

DIMENSIONS IN INCHES
TOLERANCES:
FRACTIONS ±1/8
X ± 0.1
XX ± 0.05
XXX ± 0.005

TITLE MODEL 855 SOURCE CHANGER

SIZE A	DWG. NO. R85590	REV J
	SCALE: NONE	



DESCRIPTIVE
DRAWING

DIMENSIONS IN INCHES
TOLERANCES:
FRACTIONS $\pm 1/8$
X ± 0.1
XX ± 0.05
XXX ± 0.005

TITLE MODEL 855 SOURCE CHANGER

SIZE A	DWG. NO. R85590	REV J
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DESCRIPTIVE
DRAWING

TITLE MODEL 855 SOURCE CHANGER

SIZE	DWG. NO.	R85590	REV
A	SCALE:	NONE	J
		SHEET 3 OF 6	

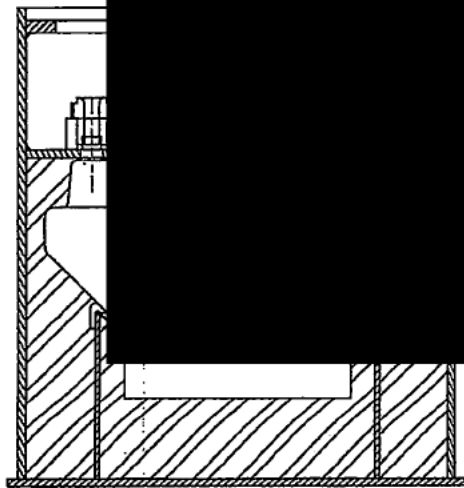


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DESCRIPTIVE
DRAWING

TITLE MODEL 855 SOURCE CHANGER

SIZE	DWG. NO.	REV
A	R85590	J
SCALE: NONE		SHEET 4 OF 6



DIMENSIONS IN INCHES
TOLERANCES:
FRACTIONS $\pm 1/8$
X ± 0.1
XX ± 0.05
XXX ± 0.005



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DESCRIPTIVE
DRAWING

TITLE MODEL 855 SOURCE CHANGER

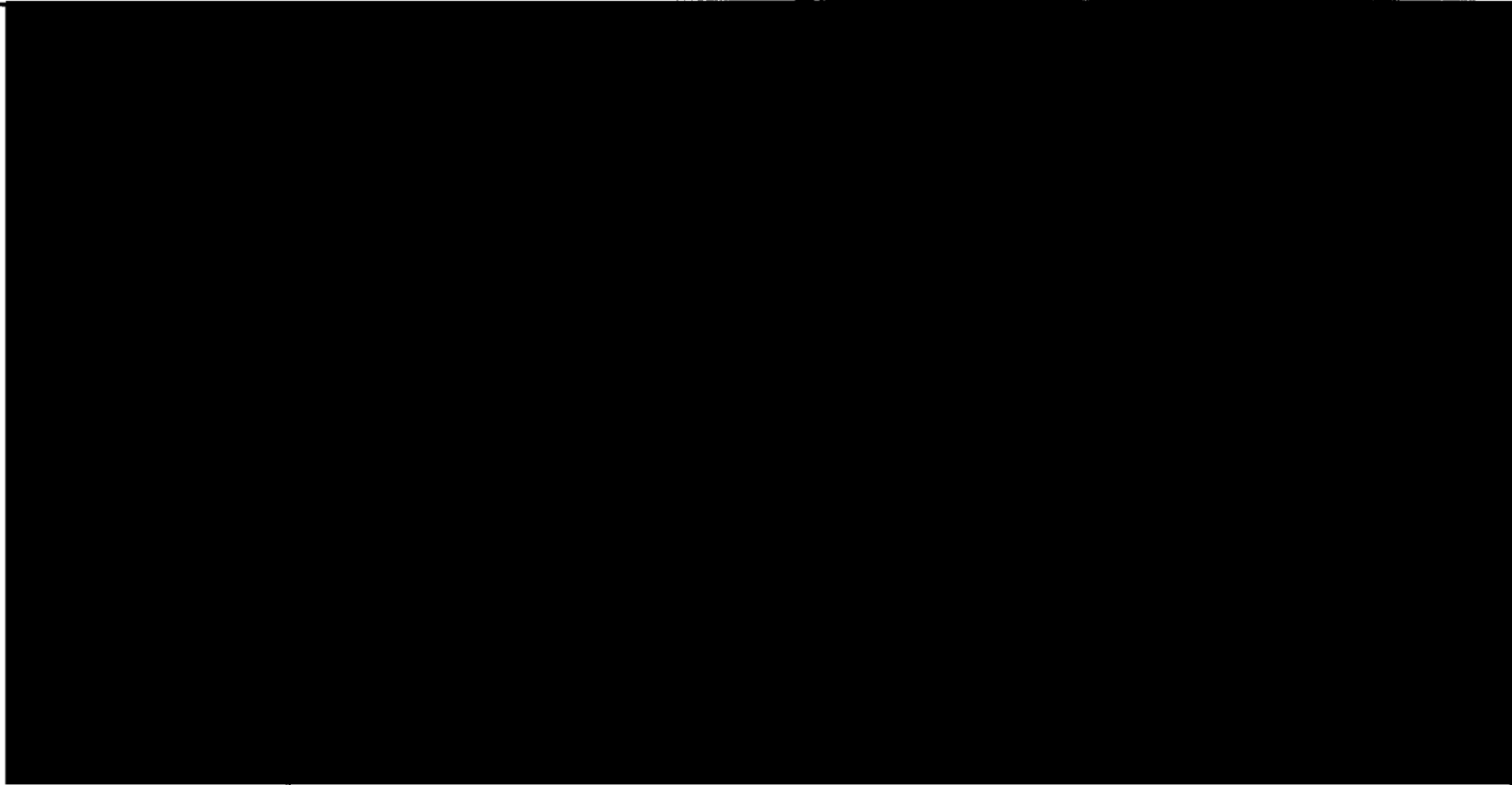
SIZE DWG. NO. R85590

A

SCALE: NONE

SHEET 5 OF 6

REV
J



DIMENSIONS IN INCHES
TOLERANCES:
FRACTIONS $\pm 1/8$
X ± 0.1
XX ± 0.05
XXX ± 0.005



DESCRIPTIVE
DRAWING

TITLE MODEL 855 SOURCE CHANGER

SIZE A	DWG. NO. R85590	REV J
	SCALE: NONE	SHEET 6 OF 6