

71-9148



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22 June 2007

Ms. Jessica Glenny, Project Engineer
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
11555 Rockville Pike, Mailstop: 6003-3D-02M
Rockville, MD 20852

Docket No.: 71-9148 & TAC No. L24020

Subject: Minor Modifications to Descriptive Drawing for the Model 770 Type B Container

Dear Ms. Glenny:

This letter is submitted to advise your office of the need for some additional minor changes to the descriptive drawing for the Model 770 and 770B Type B containers. Enclosed is Drawing R77090 Rev J which makes the following updates/corrections:

- Sheet 1 of 6: The 1 3/4" dimension has been change to 1 15/16" and is now a reference dimension. The distance of this dimension is dictated by tolerance stack up of sub-component assembly parts and will be controlled by assembly of these components.
- Sheet 1 of 6: The 2 1/2" dimension has been change to 2 7/16" and is now a reference dimension. The distance of this dimension is dictated by tolerance stack up of sub-component assembly parts and will be controlled by assembly of these components.
- Sheet 3 of 6: The specification for the skid support tubing (RBS-6) has been corrected from the 1 1/2" x 1 1/2" callout for these parts under the previous drawing revisions to the tested and correct specification of 2" x 2". This was a typographic error on the original approval and this change to made to reflect the dimensions that were present on the device that was physically tested.
- Sheet 6 of 6: A pictorial representation of the Locking Body part is added to the exploded view of the lock assembly sheet. This part had been referenced in the parts list on the previous revision of the descriptive but had not been shown. This addition is to update the pictorial representation of the assembly.

Page 1-4 of the SAR (section 1.2.1.6) has also been corrected to reflect the thickness of the skid support tubing. Revision 7 of the SAR specified the thickness of these parts as 3/16". In actuality, these parts have always been 1/4" thick. Page 1-4 of Revision 8 to this SAR is also enclosed with this letter along with a list of affected pages for the SAR revision.

There are no other changes necessary to the submission or drawing at this time. Should you have any additional questions or wish to discuss this issue in further detail, please feel free to contact me.

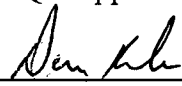
Sincerely,



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RA/QA Approval

22 Jun 07
Date


Engineering Approval

22 Jun 07
Date

Enclosure: Drawing R77090 Rev J
Page 1-4 of Revision 8 to the SAR
List of Affected Pages

Safety Analysis Report for the Model 770 Transport Package

QSA Global Inc.
Burlington, Massachusetts

22 June 2007 - Revision 8
Page 1-4

1.2.1.5 Stainless steel cover plates: ¼ inch (6.35 mm) thick stainless steel plates are attached to the exterior stainless steel weldment to protect the lock assemblies. The cover plates are bolted to the weldment using eight (8) ½-13 x 1 inch long bolts. The cover plates are also slightly recessed into the external structure which protects the plates from direct shear in a drop or puncture situation.

1.2.1.6 Stainless steel rectangular skid tubes: The packages are fitted with three (3), 1/4 inch (6.35 mm) thick stainless steel tubes which are welded to the base of the containers. This allows for lifting/movement of the container using a forklift and acts as an impact limiter for device drops on the base. The device must be lifted/handled by mechanical means as there are no lifting handles or eyebolts on the container.

1.2.2 Containment System

(Reference:

- 10 CFR 71.33(a)(4)
- IAEA TS-R-1, paragraph 213 and 501(b))

The locking assemblies on the package are shown on the drawing included in Section 1.4. The radioactive material of these source assemblies is sealed in a special form source capsule. The source capsule, attached to a flexible steel wire, form the source wire assembly.

The containment system for the package is the radioactive source capsule referred to in Section 4.1 of this Safety Analysis Report. This source capsules transported in the package are certified as special form radioactive material under 10 CFR Part 71, USDOT regulations in 49 CFR and the IAEA Regulations for the Safe Transport of Radioactive Material (TS-R-1).

1.2.3 Contents


(Reference:

- 10 CFR 71.33(b)
- IAEA TS-R-1, Section IV & paragraph 807(a))


The Models 770 and 770B transport packages are designed to transport special form capsules containing the isotopes listed in Table 1.2a. The maximum decay heat for Ir-192 in table 1.2a has been adjusted to account for content activity of the source. Actual content to output activity varies based on the capsule configuration as well as variations in isotope self-absorption. A factor of 2.3 was used for Ir-192 to convert output activity to content activity as this factor reflects the worst case variation for Ir-192 sources transported in this package. No correction was necessary for the other radionuclides transported in these packages as their activity is based on content activity and not output activity. The source capsules are loaded into the Models 770 and 770B device and secured according to the procedure described in Section 7.

The maximum weight of the contents for the shield containers is also listed in Table 1.2a. The content weight values are calculated based on the package capacity and the lowest specific activity of Ir-192 (200 Ci/gram) used in source production for these devices.


Security-Related Information Figure
 Withheld Under 10 CFR 2.390

		DESCRIPTIVE DRAWING	
TITLE MODEL 770 & 770B SOURCE CHANGER DESCRIPTIVE ASSEMBLY			
APPROVALS	DATE	SIZE	DWG. NO.
<i>[Signature]</i>	12/11/07	A	R77090
ERF#	<i>[Signature]</i>	SCALE:	REV
1711	18 JUL 05	4/1	J
SHEET 1 OF 6			


Security-Related Information Figure
Withheld Under 10 CFR 2.390

 QSA GLOBAL		DESCRIPTIVE DRAWING
TITLE MODEL 770 & 770B SOURCE CHANGER DESCRIPTIVE ASSEMBLY		
SIZE	DWG. NO.	REV
A	R77090	J
SCALE:	4/1	SHEET 2 OF 6


Security-Related Information Figure
Withheld Under 10 CFR 2.390

		QSA GLOBAL		DESCRIPTIVE DRAWING	
TITLE MODEL 770 & 770B SOURCE CHANGER DESCRIPTIVE ASSEMBLY					
SIZE	DWG. NO. R77090			REV	
A	SCALE: 4/1		SHEET 3 OF 6		J


Security-Related Information Figure
Withheld Under 10 CFR 2.390

 QSA GLOBAL		DESCRIPTIVE DRAWING
TITLE MODEL 770 & 770B SOURCE CHANGER DESCRIPTIVE ASSEMBLY		
SIZE A	DWG. NO. R77090	REV J
SCALE: 4/1	SHEET 4 OF 6	

Security-Related Information Figure
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 QSA GLOBAL		DESCRIPTIVE DRAWING	
TITLE MODEL 770 & 770B SOURCE CHANGER DESCRIPTIVE ASSEMBLY			
SIZE	DWG. NO.	R77090	REV
A	SCALE: 4/1	SHEET 5 OF 6	J

Security-Related Information Figure
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 QSA GLOBAL		DESCRIPTIVE DRAWING	
TITLE MODEL 770 & 770B SOURCE CHANGER DESCRIPTIVE ASSEMBLY			
SIZE	DWG. NO.	R77090	REV
A	SCALE: 2/1	SHEET 6 OF 6	J