

**Package Type**

Originally designed as a B(U)F Package to the IAEA SSR-6 2018 Regulations for the Safe Transport of Radioactive Materials and 10 CFR 71 for the transport of plutonium in powder form (utilising a double containment as required by 10 CFR 71.63 at the time).

Certification

The package has previously been licensed through the US DOE and could potentially be certified by the US NRC or through another Competent Authority as a Type B(U)F package.

Alternatively, approval as a Type A would be possible for a variety of contents, additionally the inner-most containment vessel could be omitted (thus increasing the payload).

Description

The SAFKEG® 3940 consists of an Outer Keg (Design No 3940) which carries a resealable Inner Containment Vessel (CV) Design No 3941, within insulating and shock absorbing cork packing. The Inner CV carries an Innermost CV, Design No 3942.

The Outer Keg has a fabricated stainless steel body with a large stainless steel lined cavity and a bolted stainless steel lid. The space between the fabricated body and the lined cavity is filled with a phenolic resin foam – Thermally Insulating Shock Absorbing Foam (TISAF).

Both CVs are resealable stainless steel containment vessels, incorporating double O-ring seal closures which are fastened by large screw retaining rings.

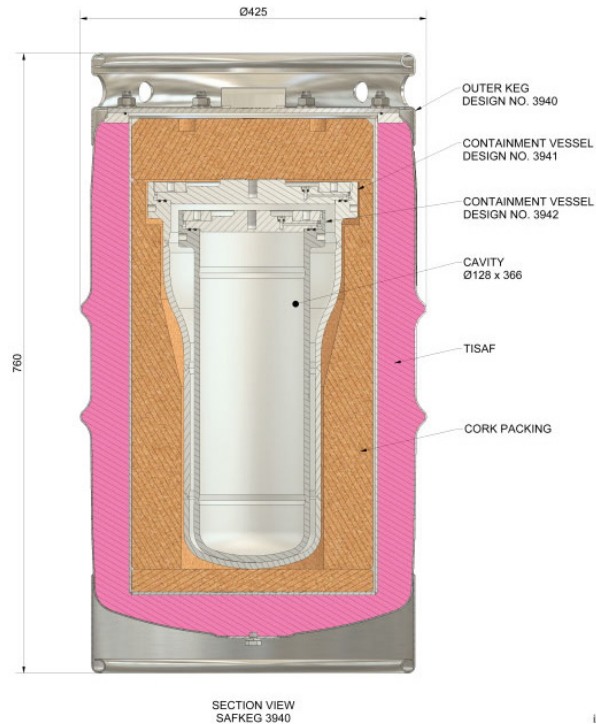
Containment / Shielding

Double containment is provided by the combination of the resealable inner CVs. This double containment met the requirements of 10 CFR 71.63 (at the time of original licensing) for solid plutonium in powder form. The lids of both containers have double O-ring seals with an interspace between the O-ring seals which facilitates leak testing to ensure that the seals achieve the prescribed levels of leaktightness.

There is no dedicated shielding provided on the package, however the resealable Inner CV (Design No 3941) features walls of 8 mm stainless steel. If the Innermost CV is omitted, this could be replaced with an inner shielded container if required.



Section through Package Design No 3940A



Approved Contents

The previous approved contents were:

- Plutonium and/or Uranium in solid or powder form.
- Maximum total weight not to exceed 20 kg.
- Maximum heat emission not to exceed 30 W.

This could be changed in any new approval.

Modes of Transport

By road, rail, sea and air.

Physical Data

Component	Outer Keg Design No 3940	Inner Containment Vessel Design No 3941	Innermost Containment Vessel Design No 3942
Dimensions			
External Diameter	425	258	180
External Height	760	475	433
Internal Diameter	300	154	128
Internal Height	588	441	366
Weights			
Container tare Weight (kg)	54	27	15
Maximum Permitted Contents Weight (kg)		20	
Maximum Gross Weight of Package (including Contents) (kg)		124	