



# REVISS

# Class 7 Cobalt-60 is good for YOUR Health

## Did you Know?

Every day irradiation using radioactive Cobalt-60 sources (Co-60) is helping to save lives and to protect our environment.

### In our Hospitals

- 45% of single use medical devices are sterilised using Co-60
- 80% of surgical gloves, sterilised using Co-60
- Blood may be irradiated before transfusion to prevent the fatal TA GvH disease
- Bottle teats for premature baby units are sterilised using Co-60
- Food is irradiated to protect immune compromised patients from food-borne illness.

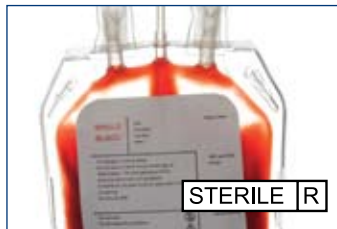
### In our Homes

- Food packaging is sterilised using Co-60
- Natural ingredients in cosmetics and pharmaceuticals are irradiated to avoid transmission of infection
- Wound dressings are sterilised using Co-60
- Feathers in soft furnishings may be sterilised to prevent transmission of bird flu
- Pet chews are irradiated to prevent transmission of salmonella.

### In our Environment

- Irradiation of fruit and vegetables for export is replacing dockside and on-board pest fumigation with Methyl Bromide – a class I cancer agent
- Mosquitoes are made infertile by irradiation to gradually eradicate malaria by interrupting the breeding cycle
- Horticultural growing mats, pots and fleeces may be sterilised for re-use, reducing waste
- Hospital waste is sanitised before disposal
- Sewage may be sanitised before use as organic fertiliser.

These are just some of the uses of Cobalt-60 radiation sources that benefit every one of us in our everyday lives.



## The Problem

**The reluctance of Ports and Harbours to handle Class 7 cargo at a level of business that is insignificant to the shipping industry, versus an annual supply need that is vital to global healthcare.**

Just 200 irradiation facilities around the world supply vital healthcare products and environmental services that maintain public health worldwide. They are serviced by two manufacturers of Co-60 sources who ship a total of 100 ISO containers per year.

Recently, denial of transit for Class 7 cargo has become commonplace. The Co-60 source manufacturers struggle to find carriers who can access reliable shipping routes to the Far East and Africa for single shipping containers, when the carrier must necessarily transit multiple ports in Europe.

## The Solution

**Ports and Harbours to work with the regulators to urgently review the management and implementation of shipping legislation governing the approval of transit for Co-60 radiation sources.**

Until such times, sea freight carriers and routes will continue to be difficult, if not impossible to secure and healthcare in some regions of the world will suffer as a result.

**Stop the denial of transit for Class 7 Cobalt-60 and help save lives**



REVISS® was formed in 1992. We are the world's second biggest supplier of sealed Cobalt-60 radiation sources to the radiation processing industry; serving medical device, pharmaceutical, cosmetics, packaging and food markets under the brand identity of PURIDEC® Irradiation Technologies.

REVISS Services (UK) Ltd. is the administrator, quality controller, design authority and customer service centre for all PURIDEC® products manufactured in compliance with ISO 9001.

Our head office and shipping office are in the UK with representative offices in the USA and China.

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Proven Solutions for Gamma Irradiation

[www.reviss.com](http://www.reviss.com)

Customers in more than  
30 countries worldwide

# Forty years of Cobalt-60 supply without transport incident

## Safety Assured

All transport flasks for shipment of Co-60 are certified Type B(U) in compliance with the IAEA transport regulations TS-R-1-2005. REVISS flasks typically weigh 4000 kg (4 te) but contain only 2-3 kg of Co-60. Type B certification requires the flask to be tested, 'to withstand transport accident scenarios under extreme environmental conditions'.



Part of the licensing process for Type B transport flasks is to prove resilience to high-speed impact and fire. Flasks must withstand a series of drop tests from heights of up to 9 m, onto a hardened concrete target, maintaining source containment, thermal and radiation shielding throughout. The flask, with accrued damage, is then subjected to fire tests to simulate worst-case exposure to thermal shock. The thermal shielding must be found sufficient to continue to preserve containment and radiation shielding throughout.

## No Risk for Port Workers



The routine intermittent handling of these flasks by port workers will have essentially no impact on their annual radiation dose uptake. A measure of the effectiveness of the radiation shielding used in Type B(U) transport flasks is that the measured annual dose absorbed by REVISS classified industry workers, who handle these flasks on a daily basis, is equal to approximately 2 units. This is less than the 2.5 units of background radiation that we all absorb each year from atmospheric emissions when we fly, through geological emissions from the natural environment, or when we undergo medical x-rays.

## Fast-track Customs Clearance

In an effort to minimise the time our flasks are held dockside for physical and documentary examination by Customs, REVISS has gained the status of Authorised Economic Operator. AEO is an internationally recognised quality mark for businesses trading in a global market. The equivalent authority in the USA is C-TPAT, Customs and Trade Partnership against Terrorism, with which REVISS is also registered. In this way REVISS endeavours to heighten regulatory awareness of our business, improve product security and minimise the impact of the Class 7 status of our cargo on carriers and port authorities.

## REVISS Radiating Confidence in Co-60 Distribution

