



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
WORKING GROUP MEETING (DGP-WG/16)**

Montreal, 17 to 21 October 2016

Agenda Item 2: Development of recommendations for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284)* for incorporation in the 2019-2020 Edition

FREIGHT CONTAINERS FOR RADIOACTIVE MATERIALS

(Presented by T. Muller)

SUMMARY

The use of freight containers has caused some interpretation problems about the regulations depending on the use of the freight container either as package or as an equipment to facilitate handling and to accommodate multi modal transport.

Action by the DGP: The DGP is invited to discuss the different points raised and to provide their opinion.

1. INTRODUCTION

1.1 A freight container in the case of radioactive material transport is defined as:

An article of transport equipment designed to facilitate the transport of packaged goods by one or more modes of transport without intermediate reloading, which is of a permanent enclosed character, rigid and strong enough for repeated use and must be fitted with devices facilitating its handling, particularly in transfer between aircraft and from one mode of transport to another. In addition, a small freight container is that which has an internal volume of not more than 3 m³. A large freight container is that which has an internal volume of more than 3 m³.

For the transport of radioactive material a freight container may be used as a packaging.

1.2 As already specified in the definition, a freight container may be used as packaging. As specified in Part 6;7.4 a freight container can be used as an industrial packaging. A recent incident has

raised a lot of questions about the application of the regulations in case a freight container is used as packaging.

1.3 Part 5;1.2.3.1.2 explains how the transport index (TI) of a freight container must be determined: either by direct measurement of the radiation level or as the sum of the transport indexes of all the packages contained (only applicable if the freight container is used as handling equipment). In case the TI is determined by direct measurement for freight containers the obtained value must be multiplied by the appropriate factor from Table 5-1. This is clear when the freight container is handling equipment to contain several packages.

1.3.1 **Question 1:** In case the freight container is used as a packaging e.g. IP-2 does Table 5-1 apply or not? Different opinions around the world exist.

1.4 Placarding requirements exist for freight containers as indicated in Part 5;3.6

1.4.1 **Question 2:** In case the freight container is used as packaging do these requirements apply or are the labelling requirements for packagings sufficient?

1.5 The maximum transport index for a package not under exclusive use is 10 (Table 5-2) and for a freight container not under exclusive use 50 (Table 7-6)

1.5.1 **Question 3:** In case the freight container is used as packaging is the TI limited to 10?

1.5.2 If yes, this would mean that if the TI exceeds 10 the package (freight container) must be shipped under exclusive use and with special arrangement. As a consequence of exclusive use no other cargo can be loaded on the aircraft

1.5.3 If not, than the TI may be 50 and no transport under exclusive use is even required. Moreover if the TI exceeds 50 and it is believed that the freight container used as package must only comply with the specific requirements for freight containers than the transport must be under exclusive use but without special arrangement. In addition “exclusive use” is defined as “...the sole use by a single shipper, of an aircraft or of a large freight container”. In the last case if a freight container is used for the carriage under exclusive use, the aircraft may also contain other cargo.

1.6 **Conclusions**

1.6.1 Depending how the freight container is defined the conditions of transport are completely different. This has created a lot of discussions and as a consequence different interpretations have been formulated by competent authorities.

2. ACTION BY THE DGP-WG

2.1 The working group is invited to discuss the above mentioned topics and if possible to provide an answer to the raised questions. Depending on the outcome of the discussion a new working paper may be prepared for the next meeting.