



## DANGEROUS GOODS PANEL (DGP)

### TWENTY-THIRD MEETING

Montréal, 11 to 21 October 2011

**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 2013-2014 Edition**

### CLARIFICATION REGARDING ASSIGNMENT TO PACKING GROUP III FOR CERTAIN FLAMMABLE LIQUIDS

(Presented by D. Brennan)

#### 摘要

本工作文件提议删除《技术细则》第2部分第3.2.2段，以消除把某些黏稠易燃液体划定为III级包装方面可能产生的混淆。

**危险物品专家组的行动：**请危险物品专家组：

- 按照本工作文件附录所示，删除《技术细则》第2;3.2.2部分，并修改现有的第2;3.2.3部分；
- 修改第2;3.2.3 d) 分段，以明确规定将黏稠易燃液体归入III级包装所适用的每个包装件的净量限制。建议的限制如本工作文件附录中的拟议修订所示。

## 1. INTRODUCTION

1.1 Paragraphs 3.2.2 and 3.2.3 in Part 2 of the Technical Instructions provide indication of the criteria that must be applied to allow viscous flammable liquids with a flash point that would normally require the substance to be assigned to Packing Group II to instead be assigned to Packing Group III.

1.2 The equivalent paragraphs in the UN Model Regulations have been the subject of review with changes being agreed at the last, 39<sup>th</sup>, meeting of the UN Subcommittee. The changes agreed by the UN

Subcommittee will be adopted into the 18<sup>th</sup> Revised Edition of the Model Regulations that will be considered by the DGP in the next biennium, 2012-2013.

1.3 The changes for the next biennium from the UN Model Regulations are not likely to significantly change the existing provisions in Part 2;3; however, in reviewing the UN provisions against those in Part 2;3 it is believed that there exists scope for confusion and misapplication of the provisions of the Technical Instructions based on the references to the UN Manual of Tests and Criteria in paragraph 3.2.2.

1.4 Paragraph 3.2.2 in Part 2 states that viscous “substances” with a flash point below 23°C may be placed in Packing Group III in conformity with the procedures specified in Part III, subsection 32.3 of the UN *Manual of Tests and Criteria* on the basis of the conditions listed. The last condition being the “size of the receptacle”. Paragraph 32.3.1.7 (d) in the UN manual identifies that the “capacity of the receptacle used does not exceed 450 litres.”

1.5 Paragraph 3.2.3 in Part 2 also addresses assignment of Packing Group III to certain viscous “flammable liquids” with four specific conditions listed, but no reference to the UN Manual of Tests and Criteria. Subparagraph d) states that “the capacity of the receptacle used does not exceed 30 L.”

1.6 It is believed that paragraph 3.2.2 is redundant text and that paragraph 3.2.3 should be revised to include reference to the procedures contained in the UN *Manual of Tests and Criteria*, but retaining the conditions that must be met for the flammable liquid to be assigned to Packing Group III.

1.7 The other issue relates around the requirements of 3.2.3 d), which states that the capacity of receptacle used does not exceed 30 L. Here it is believed that intent is to limit the size of the “receptacle” used in air transport below the limit applied in the UN Model Regulations (450 L). The value of 30 L though is difficult to reconcile when applied to a “receptacle”, given that a single packaging is a receptacle.

1.8 For passenger aircraft the per package limit for a Packing Group II flammable liquid without a subsidiary risk is 5 L with a maximum per inner packaging of 5 L for plastic or metal inner packagings. For Packing Group III the per package limit is 60 L, which may a single packaging, although the maximum for inner packagings is 10 L for plastic and metal. The limits applicable for the same substances on cargo aircraft are 60 L per package for Packing Group II, 5 L for plastic inner packagings and 10 L for metal, single packagings are permitted. Packing Group III, 220 L per package, 10 L plastic, 25 L metal, single packagings permitted.

1.9 Based on the above it can be seen that for transport on passenger aircraft the value of 30 L, if applied to a single packaging, appears to offer the shipper some benefit. However, for cargo aircraft if applied to a single packaging the shipper is being penalised. It is not believed that there can be any application to inner packagings as the value of 30 L exceeds that permitted even for Packing Group III substances on cargo aircraft.

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附录  
对技术细则的修订

第 2 部分  
危险物品的分类

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第 3 章  
第 3 类 —— 易燃液体

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3.2 包装等级的划定

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~~3.2.2 闪点低于23°C的黏稠物质，例如油漆、瓷漆、真漆、清漆、黏合剂和上光剂，在如下基础上，可按照《联合国试验和标准手册》第III部分第32.3小节规定的程序，划归III级包装：~~

- ~~a) 用流动时间（以秒计）表示的黏度；~~
- ~~b) 闭杯闪点；~~
- ~~c) 溶剂分离试验；~~
- ~~d) 容器大小。~~

3.2.3 列入III级包装的标准

闪点低于23°C的黏稠易燃液体例如油漆、瓷漆、清漆、黏合剂和上光剂可按照《联合国试验和标准手册》第III部分第32.3小节规定的程序，归入划定为III级包装，条件如下：

- a) 在溶剂分离试验中，分层后的澄清溶剂层在3%以下；
- b) 该混合物或任何分离出的溶剂不符合6.1项或第8类标准；
- c) 黏度和闪点与表2-5数据一致；
- d) 所用容器的容积不超过30 L划定为III级包装时，若用客机运输，则每个包装件的易燃液体净量不得超过30 L，或者若用货机运输，则不得超过100 L。

3.2.4 由于在高温下运输或交运而被划为易燃液体的物质归入III级包装。