



## 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**

### SPECIAL PROVISION A75

(Presented by the Dangerous Goods Advisory Council)

#### 摘要

本文件提议对A75条特殊规定进行修订，该条涉及含有例外数量的过氧化氢的消毒设备。

**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，对A75条特殊规定进行修订。

## 1. INTRODUCTION

1.1 At the DGP Working Group of the Whole Meeting in Atlantic City (DGP-WG/11, 4 to 8 April 2011), DGAC noted the difficulties encountered in meeting the Special Provision A75 requirement for comparative fire testing showing no difference in burning rate (DGP/23-WP/3, paragraph 3.2.16 refers). In particular, it was noted that the presence of even small quantities of hydrogen peroxide will produce some difference in effect and with the increasing accuracy of equipment used to measure test conditions, the comparative fire test requirement essentially precludes air transport of these small devices critical to health services. As noted previously, the competent authority for the United States has issued an approval for these devices. The approval is attached for the information of the panel.

1.2 The results of the discussion at DGP-WG/11 are reflected in DGP/23-WP/3, paragraph 3.2.16. With respect to the DGAC proposal to remove the requirement for a comparative fire test, the working group concluded:

“3.2.16.3 Although there was support for the proposal, there was concern with the entire requirement being removed. It was suggested that the requirement could be alleviated by allowing small differences in burning rates instead of none.”

1.3 In carrying out the comparative testing for the above referenced approval, the tested packagings contained four inner packagings containing 29.6 ml each of 59% hydrogen peroxide. As such, the tested package closely matched the limits allowed by Special Provision A75 limits. While many measurements taken in conducting comparative fire tests may vary depending on test conditions, comparing the maximum temperature inside packages while burning should provide a reliable basis for evaluating the potential increased fire severity. In the case of the comparative fire testing conducted, the maximum temperature measured inside the package containing the hydrogen peroxide was 900°C whereas the maximum temperature inside the same package using water was 710°C. DGAC considers that the fire tests done in relation to the United States approval validate the level of safety provided by the excepted quantity package provisions and quantity limits in A75 and that the results suggest that the Special Provision A75 comparative fire test requirement is unnecessary. Nevertheless, in view of the working group's comments, DGAC proposes revision of Special Provision A75 fire test criteria to permit an increased temperature due to the presence of hydrogen peroxide of 250°C.

1.4 With respect to the above United States approval, DGAC notes that it permits small openings in packagings to allow for the slow escape of gas over the life of the packaging. Based on data available, for the 29.6 ml of hydrogen peroxide per inner packaging described in the approval, at a temperature of 40°C, the amount of oxygen gas released due to decomposition would be approximately 0.02 mL per minute — an imperceptible amount quickly dispersed by an aircraft ventilation system. DGAC proposes that provision also be made for such safe release in the special provision.

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## 附录

### 对技术细则的修订

### 第 3 部分

### 危险物品表，特殊规定和限制数量与例外数量

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#### 第 3 章

#### 特殊规定

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- A75 物品，如消毒设备，当每个内包装含量小于30 mL，每个外包装含量不超过150 mL时，就可以按照3.5的规定用客机和货机运输，而不必考虑第9栏的数值以及危险物品表（表3-1）第10至13栏“禁运”标志，条件是此种包装要首先经过对比燃烧试验。在该对比燃烧试验中，待运包装件（包括拟运输的物质）和充满水的同样包装件的对比燃烧试验燃烧速度必须相同展示，试验过程中从包装内部测量的最高温度相差不超过250°C。包装可以包含一个排气孔，以使逐渐分解过程中产生的气体缓慢逸出。

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