Organisation de l'aviation civile internationale

DGP/23-WP/41
16/8/11

NOTE DE TRAVAIL

GROUPE D'EXPERTS SUR LES MARCHANDISES DANGEREUSES (DGP)

VINGT-TROISIÈME RÉUNION

Montréal, 11 – 21 octobre 2011

Point 2 : Élaboration de recommandations relatives à des amendements des *Instructions techniques pour la sécurité du transport aérien des marchandises dangereuses* (Doc 9284) à introduire dans l'édition de 2013-2014

DISPOSITION PARTICULIÈRE A75

(Note présentée par le Dangerous Goods Advisory Council)

SOMMAIRE

(Faute de ressources, seuls le sommaire et l'appendice ont été traduits.)

La présente note propose d'amender la disposition particulière A75 applicable aux appareils de stérilisation contenant du peroxyde d'hydrogène en quantités exemptées.

Suite à donner par le DGP : Le DGP est invité à amender la disposition spéciale A75 comme l'indique l'appendice.

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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APPENDICE

PROPOSITION D'AMENDEMENT DES INSTRUCTIONS TECHNIQUES

Partie 3

LISTE DES MARCHANDISES DANGEREUSES, DISPOSITIONS PARTICULIÈRES ET QUANTITÉS LIMITÉES ET EXEMPTÉES

(...)

Chapitre 3

DISPOSITIONS PARTICULIÈRES

(...)

IT	*ONU*	
A75		Les objets tels que les appareils de stérilisation, lorsqu'ils contiennent moins de 30 mL par emballage intérieur, avec un maximum de 150 mL par emballage extérieur, peuvent être transportés à bord des aéronefs de passagers et des aéronefs cargos conformément aux dispositions du Chapitre 5, sans tenir compte de la valeur indiquée dans la colonne 9 ni de la mention « Interdit » dans les colonnes 10 à 13 de la Liste des marchandises dangereuses (Tableau 3-1), à condition que ces emballages aient d'abord été soumis à des épreuves comparatives de réaction au feu. Ces épreuves doivent démontrer que la ~~vitesse de combustion~~ température maximale mesurée à l'intérieur d'un colis préparé pour le transport (y compris la matière à transporter) ~~n'est pas différente~~ ne diffère pas de plus de 250 °C de celle d'un colis identique rempli d'eau. Les emballages peuvent comporter des trous d'évent destinés à permettre un lent échappement des gaz qui se dégagent au cours de la décomposition graduelle.

(...)

— FIN —