

Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Sub-Committee of Experts on the Transport of Dangerous Goods

25 May 2010

Thirty-seventh session

Geneva, 21–30 June 2010

Item 5 of the provisional agenda

**Miscellaneous proposals of amendments to the Model Regulations
on the Transport of Dangerous Goods**

Revision of various specialist packing instructions in the Model Regulations

Transmitted by the US Fuel Cell Council¹

Reference: ST/SG/AC.10/C.3/2010/26

Introduction

ST/SG/AC.10/C.3/2010/26 submitted by the by the experts from the United Kingdom and Sweden and by the International Air Transport Association proposes modifications, among others, to P004 for fuel cell cartridges. The intent of these changes are to clarify when packagings must meet the requirements of 4.1.1.3 and to clarify when Packing Group II or Packing Group III requirements must be met in accordance with 4.1.1.3.

The proposed changes appear to align requirements to those existing and proposed for lithium and lithium ion batteries. But fuel cell cartridges packed with equipment under current P004 present no such risks of electrical hazards and the risks from chemical hazards are addressed by various requirements for cartridges, packagings, hazard communication, etc. In the case of fuel cell cartridges and fuel cell cartridges contained in equipment, the US Fuel Cell Council does not object to the proposed changes. In the case of fuel cell cartridges packed with equipment, the proposed changes present no additional needed levels of protection for land and vessel transport and confusion has been noted about concealing markings made in accordance with the requirements of 4.1.1.3. No problems have incurred from the existing requirement in P004 as to fuel cell cartridges packed with equipment, which already require inner packagings or placement in the outer packaging with cushioning material or divider(s) so that the fuel cell cartridges are protected against damage that may be caused by the movement or placement of the contents in the inner packaging.

¹ In accordance with the programme of work of the Sub-Committee for 2009-2010 approved by the Committee at its fourth session (refer to ST/SG/AC.10/C.3/68, para. 118 (d) and ST/SG/AC.10/36, para. 14).

Fuel Cell Cartridges Packed with Equipment

The proposed changes for Fuel Cell Cartridges Packed with Equipment in ST/SG/AC.10/C.3/2010/26 are recommended by the US Fuel Cell Council to remain consistent with present requirements in P004

Proposal

Revise P004 as follows:

P004	PACKING INSTRUCTION	P004
This instruction applies to UN Nos. 3473, 3476, 3477, 3478 and 3479		
<p>(1) For fuel cell cartridges: The following packagings are authorized provided the general provisions of 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.1.6 and 4.1.3, are met</p> <p><u>Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G);</u></p> <p><u>Boxes (4A, 4B, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2);</u></p> <p><u>Jerricans (3A2, 3B2, 3H2).</u></p> <p>Packagings shall conform to the packing group II performance level.</p>		
<p>(2) For fuel cell cartridges packed with equipment: <u>Strong outer packagings which meet the general provisions of 4.1.1.1, 4.1.1.2, 4.1.1.6 and 4.1.3.</u></p> <p>When fuel cell cartridges are packed with equipment, they shall be packed in inner packagings or placed in the outer packaging with cushioning material or divider(s) so that the fuel cell cartridges are protected against damage that may be caused by the movement or placement of the contents within the outer packaging.</p> <p><u>The equipment shall be secured against movement within the outer packaging.</u></p> <p><u>For the purpose of this packing instruction, “equipment” means apparatus requiring the fuel cell cartridges with which it is packed for its operation.</u></p>		
<p>(3) Fuel cell cartridges contained in equipment: <u>Strong outer packagings which meet the general provisions of 4.1.1.1, 4.1.1.2, 4.1.1.6 and 4.1.3.</u></p> <p>Large robust equipment (see 4.1.3.8) containing fuel cell cartridges may be transported unpackaged. Fuel cell cartridges which are installed in equipment shall be protected against short circuit and the entire system shall be protected against inadvertent operation.</p>		