Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

102nd session **16 March 2017**
Geneva, 8-12 May 2017
Item 5 (b) of the provisional agenda
Proposals for amendments to annexes A and B of ADR: miscellaneous proposals

Corrections to document ECE/TRANS/WP.15/2017/09

Transmitted by the Government of Switzerland

Introduction

1. The calculation of the quantity of hydrogen which appears in in item 34. of document ECE/TRANS/WP.15/2017/09 was not performed until the end so that the values for hydrogen which appear in the tables of the proposals 1c proposals and 2 are false. We also correct some mistakes in theses tables for natural gas and for hydrogen.

2. The calculation in item 34. for hydrogen must be corrected in the following way : :

For hydrogen

Energy content 11 MJ/Nm^3

For a density of 0,09 kg/Nm^3, thus $\frac{11\ \mathrm{MJ/Nm3}}{0{,}09\ \mathrm{kg/Nm3}}$ = 120 MJ/kg

For hydrogen : $\frac{2160\ MJ}{120\ MJ/kg}$ = 18 kg.

3. The value of 18 kg corresponds for hydrogen to the equivalent quantity of energy of 60 L of diesel.

Proposals 1c and 2

4. In the tables of proposals 1c and 2 the following changes should be introduced:

«…

Fuel	***Energy content***	***Quantity*** ~~***in litres***~~	
		Per receptacle	*Per transport unit*
Diesel	*36 MJ/litre*	*60 l*	*240 l*
Petrol	*32 MJ/litre*	*67,5 l*	*270 l*
Natural Gas/Biogas	*35 MJ/Nm*^{3}	*43,2 kg* ~~*61,7 l*~~	*172*~~*43,2*~~ *kg*
Liquefied Petroleum Gas (LPG)	*24 MJ/litre*	*90 l*	*360 l*
Ethanol	*21 MJ/litre*	*102 l*	*411,4 l*
Biodiesel	*33 MJ/litre*	*65,5 l*	*261,8 l*
Emulsion fuel	*32 MJ/litre*	*67,5 l*	*270 l*
Hydrogen	*11 MJ/Nm*^{3}	*18 kg* ~~*196,4 l*~~	*72* ~~*122,2*~~ *kg*

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