

Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

Ninety-ninth session

12 November 2015

Geneva, 9-13 November 2015

Item 6(a) of the provisional agenda

**Proposals for amendments to Annexes A and B of ADR:
construction and approval of vehicles;**

Revised texts regarding the use of CNG, LNG or LPG

1.1.3.2 (a) Amend to read as follows:

“(a) Gases contained in the tanks and cylinders of a vehicle, performing a transport operation and destined for its propulsion or for the operation of any of its equipment used or intended for use during carriage (e.g. refrigerating equipment).

The gases may be carried in fixed tanks and cylinders, directly connected to the vehicle’s engine and/or auxiliary equipment or transportable pressure receptacles, which comply with the pertinent legal provisions.”.

(Reference documents: ECE/TRANS/WP.15/2015/16 and informal document INF.15)

1.2.1 Add the following new definitions:

“*Compressed Natural Gas (CNG)*” means a compressed gas composed of natural gas with a high methane content assigned to UN No. 1971.

“*Liquefied Natural Gas (LNG)*” means a refrigerated liquefied gas composed of natural gas with a high methane content assigned to UN No. 1972.

(Reference document: ECE/TRANS/WP.15/2015/16)

9.2.4.3 Amend to read as follows:

"9.2.4.3 Fuel tanks and cylinders

The fuel tanks and cylinders supplying the engine of the vehicle shall meet the following requirements:

(a) In the event of any leakage under normal conditions of carriage, the liquid fuel or the liquid phase of a gaseous fuel shall drain to the ground and not come into contact with the load or hot parts of the vehicle;

(Reference document: ECE/TRANS/WP.15/2015/16)

(b) Fuel tanks for liquid fuels shall meet the requirements of ECE Regulation No. 34⁷; fuel tanks containing petrol shall be equipped with an effective flame trap at the filler opening or with a closure enabling the opening to be kept hermetically sealed. Fuel tanks and cylinders for LNG and for CNG respectively shall meet the relevant requirements of ECE Regulation No. 110⁸. Fuel tanks for LPG shall meet the requirements of ECE Regulation No. 67⁹.

(Reference document: ECE/TRANS/WP.15/2015/16)

(c) The discharge opening(s) of pressure relief devices and/or pressure relief valves of fuel tanks containing gaseous fuels shall be directed away from air intakes, fuel

tanks, the load or hot parts of the vehicle. Pipes of the fuel system shall not be fixed on the shell containing the load.”.

(Reference document: ECE/TRANS/WP.15/2015/17 as amended)

9.2.4.4 Amend to read as follows:

“9.2.4.4 The engine propelling the vehicle shall be so equipped and situated to avoid any danger to the load through heating or ignition. The use of CNG, LNG or LPG as fuel shall be permitted only if the specific components for CNG, LNG and LPG are approved according to ECE Regulation No. 110⁷ or ECE Regulation No. 67⁸ and meet the provisions of 9.2.2. The installation on the vehicle shall meet the technical requirements of 9.2.2 and of the above mentioned regulation. The installation on the vehicle shall meet the technical requirements of 9.2.2 and ECE Regulation No. 67⁸. In the case of EX/II and EX/III vehicles the engine shall be of compression-ignition construction using only liquid fuels with a flashpoint above 55 °C. Gases shall not be used.”.

(Reference document: ECE/TRANS/WP.15/2015/16 as amended)

Insert the following new section 9.2.7:

“9.2.7 Prevention of other risks caused by fuels

9.2.7.1 Fuel systems propelling the vehicle by means of liquefied natural gas shall be so equipped and situated to avoid any danger to the load due to the gas being refrigerated.”.

(Reference document: ECE/TRANS/WP.15/2015/17)

Footnotes 6, 7 and 8 should read as follows:

⁶ *ECE Regulation No. 34 (Uniform provisions concerning the approval of vehicles with regard to the prevention of fire risks)*

⁷ *ECE Regulation No. 110 (Uniform provisions concerning the approval of:*

I. Specific components of motor vehicles using compressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion systems;

II. Vehicles with regard to the installation of specific components of an approved type for the use of compressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion system).

⁸ *ECE Regulation No. 67 (Uniform provisions concerning the approval of:*

I. Approval of specific equipment of vehicles of category M and N using liquefied petroleum gases in their propulsion system

II. Approval of vehicles of category M and N fitted with specific equipment for the use of liquefied petroleum gases in their propulsion system with regard to the installation of such equipment)

Delete 1.6.5.17 in INF.9 and renumber the consequential measures adopted accordingly.
