



---

**Economic Commission for Europe**

Inland Transport Committee

**World Forum for Harmonization of Vehicle Regulations**

**Working Party on General Safety Provisions**

**106<sup>th</sup> session**

Geneva, X–X April 2014

Item **Y** of the provisional agenda

**Regulation No. 110 (Specific equipment for CNG/LNG)**

**Proposal for amendments to document  
ECE/TRANS/WP.29/GRSG/2014/X on Regulation No.  
110 (Specific equipment for CNG/LNG)**

**Prepared and discussed by the LNG-TF and submitted by the  
expert from the Netherlands**

## PROPOSAL:

Document ECE/TRANS/WP.29/GRSG/2014/X to amend as follows:

### 1. Proposed corrections:

18.12. The LNG system shall be designed to prevent any LNG trapping.

18.13. The LNG system in category M vehicles shall be equipped with a natural gas detector and/or gas tight housing. The LNG system in category N vehicles may be equipped with a natural gas detector if the fuel storage tank and associated piping is mounted on the exterior of the vehicle without the possibility of gas ~~trapping accumulation (as in paragraph 18.12.)~~ **in an enclosed area or volume in the vehicle.** If the fuel storage tank is located inside the cargo area of a category N vehicle then a natural gas detector and/or gas tight housing is mandatory.

**18.14 "A safety system shall be provided so components downstream of the regulator shall not be exposed to pressures higher than they were designed for. For a vehicle operating on LNG a further safety system shall be provided so that components downstream from the vaporizer shall not be exposed to temperatures lower than they were designed for."**

### 2. proposed corrigendum to the R110:

Annex 3B	3.3.6 renumber <b><u>6.11</u></b> to <b><u>4.11</u></b>
	3.4.1 renumber <b><u>6.10</u></b> to <b><u>4.10</u></b>
	3.4.2 renumber <b><u>6.10</u></b> to <b><u>4.10</u></b>
	4.15.1 renumber <b><u>6.11</u></b> to <b><u>4.11</u></b>

### 3. Proposed corrections:

18.4.3: "When the vehicle is **ready for use** **in normal driving condition** the fuel container and/or tank shall not be less than 200 mm above the road surface **and the container shall not touch the ground if any tire or tires are deflated.**"

18.4.3.1 The provisions of paragraph 18.4.3. shall not apply if the container and/or tank is adequately protected, at the front and the sides and no part of the container is located lower than this protective structure.

**18.4.3.2: "Where the vehicle has "kneeling capability" or variable suspension height, the fuel tank shall not touch the ground in the kneeling or lowest suspension position. To avoid puncture or other damage the tank shall be adequately protected from touching the ground in the kneeling or lowest suspension position."**