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Item **Y** of the provisional agenda

Regulation No. 110 (Specific equipment for CNG)

**Proposal for amendments to document
ECE/TRANS/WP.29/GRSG/2013/7 on Regulation No.
110 (Specific equipment for CNG)**

Submitted by the expert from the Netherlands

PROPOSAL:

Document ECE/TRANS/WP.29/GRSG/2013/7 to amend as follows:

1. *Paragraph 8.13 amend to read:*
 - 8.13. Provisions on components fitted to the LNG tank
 - 8.13.1. The LNG tank shall be equipped at least with the following components, which may be either separate or combined:
 - 8.13.1.1. Pressure relief valve;
 - 8.13.1.2. Manual valve ~~or automatic valve~~;
 - 8.13.1.3 Automatic cylinder valve**
 - 8.13.1.4. Excess flow device.
 - 8.13.2. The tank may be equipped with a gas-tight housing, if necessary.
 - 8.13.3. The components mentioned in paragraphs 8.13.1.1. to 8.13.1.4. (above) shall be type approved pursuant to the provisions laid down in Annex 4 to this Regulation.

2. *Paragraph 18.6 amend to read:*
 - 18.6. Accessories fitted to the LNG tanks
 - 18.6.1. Automatic valve**
 - 18.6.1.1. An automatic cylinder valve shall be installed directly on each LNG tank.**
 - 18.6.1.2. The automatic cylinder valve shall be operated such that the fuel supply is cut off when the engine is switched off, irrespective of the position of the ignition switch, and shall remain closed while the engine is not running. A delay of 2 seconds is permitted for diagnostic.**
 - 18.6.2. Excess flow valve
The excess flow valve can be fitted inside or directly on the LNG tank (in a protected position).
 - 18.6.3. Pressure relief valve (primary)
The primary pressure relief valve outlet shall be connected to an open ended pipe-away system to move vented gas away to a high level. Consideration shall be given to preventing any blockage or freezing of the pipe-away. The LNG primary relief valve shall not vent into the gas tight housing (if fitted).
 - 18.6.4. Pressure relief valve (secondary)
The secondary relief valve may relieve gas immediately from its outlet.
Protection from water ingress and damage shall be considered. The secondary relief valve outlet shall not be connected to the same pipe-away as the primary relief valve. The LNG secondary relief valve shall not vent into the gas tight housing (if fitted).
 - 18.6.5. Manual ~~fuel shut-off~~ valve
The manual ~~fuel shut-off~~ valve shall be mounted directly on the LNG tank (in a protected position). It should be readily accessible. **The manual valve can be integrated into the automatic cylinder valve.**
 - 18.6.6. Manual vapour shut off valve
The manual vapour shut off valve shall be mounted directly on the LNG tank (in a protected position). It should be readily accessible.
 - 18.6.7. Vent line or connector
The vent line or connector may be mounted inside or on the LNG tank (in a protected position). It should be readily accessible. The vent connector shall be suitable for the purpose at temperatures indicated in Annex 50 for the working pressure of the LNG tank.
 - 18.6.8. Venting management system
The primary pressure relief valve shall be piped to a vent stack that extends to a high level. The primary and secondary relief valve outlets shall be protected by fouling by dirt, debris, snow, ice and/or water. The vent stack shall be sized to prevent flow restriction due to pressure drop. Gas exiting the vent stack or secondary relieve valve shall not impinge on enclosed areas, other vehicles, engine intakes, or engine exhaust. In the case of dual tanks, the primary relief valve outlets piping for each tank may be manifold to a common stack.

JUSTIFICATION

For safety reasons it is necessary that all LNG tanks are equipped with an automatic cylinder valve like also required for LPG, H2 and CNG. The proposed amendments are based on the existing requirements for CNG.