

Economic Commission for Europe**Inland Transport Committee****Working Party on the Transport of Dangerous Goods****Ninety-sixth session****6 May 2014**

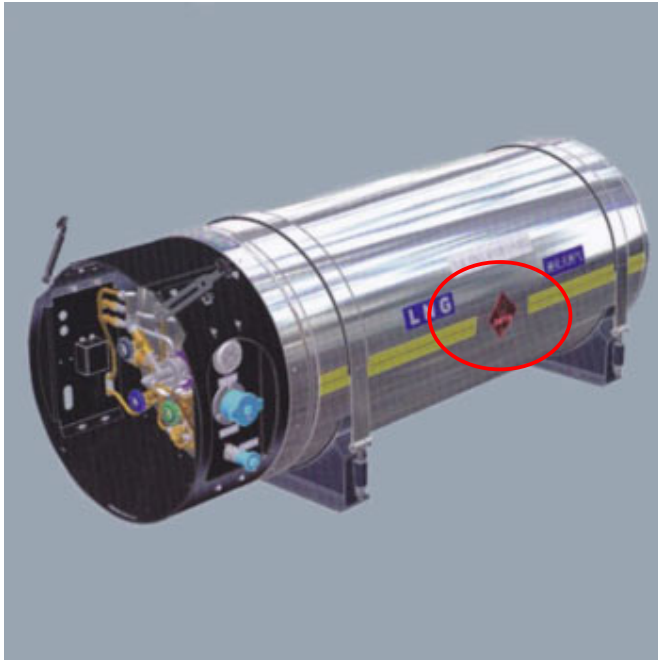
Geneva, 6–9 May 2014

Item 6(a) of the provisional agenda

**Proposals for amendments to Annexes A and B of ADR:
construction and approval of vehicles****LNG as fuel for vehicles – labelling and SP 660****Transmitted by the Government of Belgium***Summary*

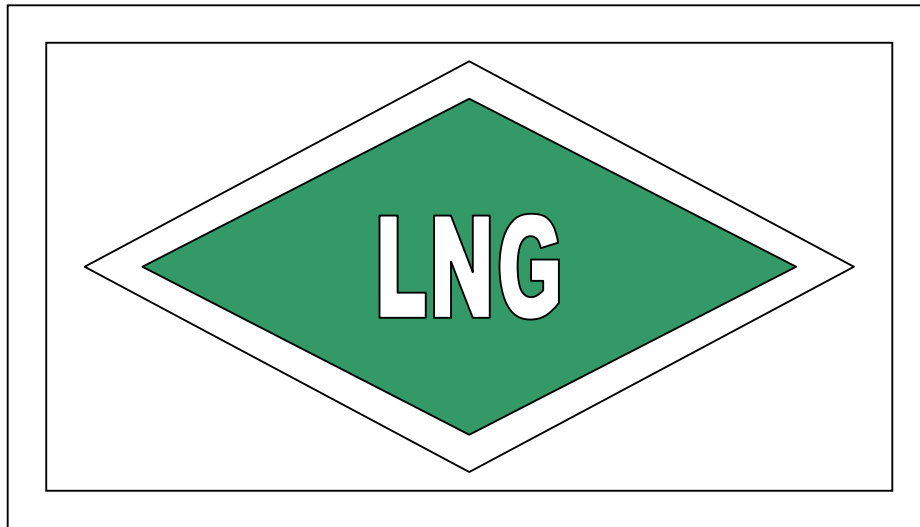
Executive summary:	Clarification on labelling of LNG receptacles when used as fuel reservoirs for the propulsion of vehicles
Action to be taken:	Clarify the applicability of ADR labelling requirements for LNG cylinders used as fuel reservoirs for the propulsion of vehicles in general and ADR vehicles in particular
Reference documents:	2014/2 + inf.11 (96 th session of WP.15)

1. At its Autumn 2013 session, the WP.15 discussed the use of LNG as fuel for ADR vehicles. For the 96th session, documents 2014/2 (Netherlands) and INF.11 (Germany) have been submitted under the same topic. Linked to this topic is the actual observed practice of labelling of these LNG cylinders, when installed in or onto vehicles to provide fuel for propulsion. From national experience it is tentatively concluded that LNG will find its initial application as propulsion fuel typically for vehicles for categories N, O and M. Below are several observed labelling practices:





2. Following these examples, Belgium notes that the only mandatory labelling requirement for LNG in the revision of R 110 is for M2 and M3 vehicles (see revised R110 §18.1.8.2), with the following label:



3. Nothing however is specified for the LNG cylinder itself. Several fire emergency services have already expressed their desire for enhanced identification of these vehicles containing an LNG reservoir.
4. Additionally, under ADR 1.1.3.2 (a) it is indicated that none of the labels under ADR 5.2 are mandatory on an LNG cylinder when installed for the purpose of propulsion of the vehicle or even that none of the provisions of ADR are applicable whatsoever.
5. It is however noted that these cylinders are often labelled according to ADR (or otherwise – see picture 1). The LNG cylinders currently on the market are commonly, but not exclusively, constructed according to EN 1251-2, listed in ADR 6.2.4.1.
6. Lastly, SP 660 continues to apply the labelling provisions to LPG, CNG and hydrogen cylinders when carried as a load, see SP 660 (f). However, SP 660 still contains the reference to R110 without the inclusion of LNG in its title nor a reference to the revised

supplement 1 to revision 1 of these regulations. For this reason, ECE R 110 conforming LNG cylinders not conforming to ADR 6.2 cannot be transported normally as a load when still containing traces of LNG.

Proposals

7. **Proposal 1:** include LNG in the scope of SP 660 through an updated reference to R 110 in footnote 6 and additionally assign SP 660 to UN 1972 METHANE, REFRIGERATED LIQUID or NATURAL GAS, REFRIGERATED LIQUID with high methane content.

8. **Proposal 2:** discuss :

- if LNG cylinder marking is appropriate or advisable also when the cylinder is installed in the vehicle or vehicle marking is appropriate also for category N and O vehicles
 - if so, which label is appropriate and consider consequential amendments in ADR or feedback to GRSG for consideration in R 110, as deemed necessary.
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