

Submitted by the expert
from the Netherlands

Informal document No. GRSG-101-23
(101st GRSG, 18-21 October 2011
agenda item 14)

LNG – Task Force

Report of activities to the GRSG
18th-21st October 2011, Geneva

Overview

The LNG Task Force was created to develop the technical specifications for LNG (Liquefied Natural Gas) cryogenic components to be installed on-board road vehicles.

- The LNG Task Force results from the work of the existing Dual-Fuel Task Force -developing technical specifications to enable certification of D-F engines/vehicles
- The D-F Task Force (operating within the Informal Group on Gaseous Fuelled Vehicles of the GRPE) stressed the need to have the specifications for LNG components ready in order to be able to obtain complete EU Type Approval in the future.
- The first official LNG-TF meeting was held 7th September 2011 in Brussels:
 - Chairman: Mr. Paul Dijkhof – KIWA (NL)
 - Co-secretariat: Dr. Jeffrey Seisler – NGV Global / Mr. Jaime del Álamo – NGVA Europe

Key points discussed during the first meeting

- Scope of the LNG TF: prepare the amendments to ECE R. 110 to allow certification of LNG systems to be fitted into road vehicles
- The group debated the merits of amending R. 110 or creating an entirely new LNG regulation. The decision was made to amend R. 110
 - Some components of CNG systems are the same as for LNG systems
 - Specifications for dedicated LNG components will be placed in a new Annex
- Drafting of the amendments to ECE R. 110 began at the first meeting. References to the applicability to LNG in addition to CNG must be introduced.

Specific Technical Issues Discussed

- A new Class 5 shall be added in the component classification flow chart (for parts in contact with LNG or temperatures below -40°C);
- Differences in current LNG system temperatures and pressures must be addressed;
- Several new components were identified (LNG tank, vaporizer, blow-off valve); ISO/TC 220 is already working on LNG tank specifications (ISO/DIS 12991);
- Several inconsistencies exist in current existing standards (TPED, UK-DOT4L, 49-CFR, NFPA 52-57, SAE J2343...);
- The option of having liquefied biomethane will also be dealt with;
- The group identified the need to introduce specifications for the accuracy of the measurements, i.e. leakage of $\pm 5\%$ of a certain flow $-\text{xx cm}^3/\text{h}-$. The same occurs with temperature specifications. This would apply not only to LNG but also to CNG
- Next meeting: the next meeting of the TF will be held on 3rd November 2011