

**MEETING MINUTES
LNG TF-15
TELECONFERENCE
16.00-18.00 Central Europe Time
16 DECEMBER 2013**

I. Welcome to the participants (Mr. Dijkhof)

II. Comments received

1. We have received comments on several amendments and put them into a document to speed the editing for the teleconference. (LNG TF 15-01)

III. Regulation R.110 amendments: regarding lowest position of the LNG tank or CNG container

2. Specific language changes were discussed for section 18.4.3 in order to refine the details of the amendment proposed in the LNG TF-14. (height vs. capability); and adding 'normal driving conditions'; The idea is to ensure that the fuel tank cannot, under any conditions during driving or stationary, touch the ground.
3. 18.4.3: "When the vehicle is ready for use 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."
4. For consideration of vehicles with hydraulic systems capable of lowering and raise the vehicle an additional clause was added during LNG TF-14 as 18.4.3.1: "Where the vehicle has "kneeling" 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."
5. Comment received from André Rijnders (RDW-Netherlands, and Chairman of Informal Group GFV) felt strongly that the 200mm requirement should not be removed but that additional language in the 'kneeling' position (or variable suspension) can be added. (Refer to LNG TF 15-01.) The group felt it was important to take Mr. Rijnders' comments into effect, therefore, a discussion that occurred in LNG TF-14, where the 200mm would be eliminated but protected has been reconsidered. The existing Regulation section 17.4.3.1 in current R.110 indicates that adequate protection is available but does not mention 200mm. Since the wording exists we will not suggest to change this (by adding 200mm, where it still is mentioned in 18.4.3).
6. There was further discussion about the proposed clause discussed in LNG TF -14 about a protective structure around the tank: 18.4.3.1. For a double skinned, insulated LNG tank, if the inner vessel is adequately protected by the outer vessel at the front and the sides and no part of the inner vessel is located lower than this protective structure, the provisions of paragraph 18.4.3 shall not apply. It is agreed by the participants that we will not change this existing language.
7. 18.4. Suggestions by Mr. Whitehouse were adopted as: "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**." (Refer to LNG TF 15-01)

8. Further to the discussion of the safety issue associated with gas (CNG or LNG) downstream from the regulator (from LNG TF meetings 13 and 14), language is agreed as follows: **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."** (See Document LNG TF 15-03.)
9. Mr. Dijkhof also found some small details that can be proposed for a corrigendum (See Document LNG TF 15-03.)
 - Annex 3B 3.3.6 renumber **6.11** to **4.11**
 - 3.4.1 renumber **6.10** to **4.10**
 - 3.4.2 renumber **6.10** to **4.10**
 - renumber **6.11** to **4.11**

IV. ADR Amendments

10. Document LNG TF 15-02 from the Dutch delegates was discussed line-by-line since this draft will be intended to be submitted to the May 2014 meeting of WP15 (Working Party of the Transport of Dangerous Goods) by the Dutch with input and agreement by the LNG TF. The meeting participants made specific changes that are noted in this document, amended as LNG TF 15-02rev1 (RDW draft rationale-LNG-ADR edited). This document provides amendment language on leaking fuel from the tank (no longer 'going down to the ground' and modified to accommodate LNG/CNG/LPG), with details of the leaking fuel not coming into contact with 'hot parts' of the engine or of the load (on the truck).
11. These comments will be submitted back to the Dutch RDW for their consideration and finalization into a formal document

V. Meeting Close

12. Mr. Dijkhof thanked the participants for their on-going support and closed the meeting.

VI. Next Meeting

13. The next meeting of the LNG-TF has not been scheduled.

ATTENDEES

Paul Dijkhof (Chairman), KIWA
Jeff Seisler (Secretariat), NGV Global/Clean Fuels Consulting
Andrew Whitehouse, Clean Air Power
Mihai Ursan, Westport
Joseph Gillingwater, Hardstaff