

TO BE ADOPTED (at GFV-42)

MEETING MINUTES

40th Meeting of the Informal Group on Gaseous Fuelled Vehicles (GFV)

(In conjunction with the HDDF TF-Retrofit)

RDW – Zoetermeer, The Netherlands

11th May 2015

10:00-17:00

I. Welcome and Introduction

1. Chairman Rijnders welcomed the group to RDW Netherlands and introduced the new delegate from the European Commission (DG Growth), Panagiota (Penny) Dilara .

II. Agenda for today (changes/additions)

2. There were no changes to the day's agenda.

III. Adoption of minutes of the GFV-39 on 25-26 March 2015 (Brussels)

3. Minutes of the GFV-39 were adopted, with thanks to the co-secretariats for preparation.

IV. Revised document related to R.115 for GFV consideration. GFV 40-02 (AEGPL)

4. GFV 40-02 has been proposed and discussed at the last GFV. The proposed amendment is aimed at simplifying the communication model of approval for LPG vehicles. As regards vehicle types for which the retrofit system is qualified (i.e. other than parent vehicles), the current model requires the communication of a calculated CO₂ factor as well as of the specific CO₂ emissions in the gas mode. The proposal received approval from the GFV to move forward to the full GRPE meeting in June 2015.

V. Information exchange on gaseous fuel vehicles in other forums:

5. **GRPE – VPSD.** (Vehicle Propulsion System Definitions). GFV provided VPSD with definitions of gaseous fuel definitions (Document VPSD-06-08 (GFV 38-02)) and Mr. Albus, Chairman of VPSD has provided some comments and reaction. The language discussed is highlighted from the original with Mr. Albus's comments. Mr. Albus's comments all were discussed and preferred revisions were made as follows (paragraphs 4-7, below). A new GFV definitions document will be prepared for the VPSD that incorporates the debated changes. The bi-fuel and dual fuel definitions annotated in red in this text is what was returned with comments from the VPSD. Below each is the result of the GFV discussion with the preferred option returned to VPSD (Document GFV 40-03).

6. **GRPE – WLTP** (Update (Mr. Rijnders)

There may not be too many consequences of the WLTP upon gaseous fuels but there is some lack of clarity as to the impacts, for example, on retrofit systems due to changes in the type approval procedures and CO₂. The complexities are not fully clarified but the fundamentals are not likely to be changed. Once completed, the regulatory language can be reviewed as to its impacts on gaseous fuels.

7. **GRSG (R.110) update** on gaseous fuel vehicle provisions at the 108th GRSG (5 May 2015). Mr. Piccolo addressed the GRSG issues affecting LPG and Mr. Seisler addressed those activities related to NGVs.

There were eight gaseous fuel issues tabled. One LPG issue and 7 CNG issues.

- 7.1 *Preventing LPG flow to the petroleum or diesel tanks.* The European Liquefied Petroleum Gas Association proposed an amendment to R.67 for new provisions for preventing a flow of LPG into the petrol or diesel tank. AEGPL has arranged a new draft proposal and provided it to NL and Germany. The main principles were agreed and a document will be ready for GRSG 109 in October 2015. The issue is the temporary blending of LPG and gasoline and the testing now that will be required. AEGPL also hoped to broaden the scope of the regulation to L class vehicles.
- 7.2 *Proposal on five year periodic inspections of pressure relief valves (Belgium).* This document was removed from the agenda by Belgium, which is considering a new document for the next GRSG.
- 7.3 *Proposal by the Netherlands to regulate the direction of discharging the pressure relief devices on CNG cylinders.* The proposal related to discharging CNG cylinders mounted on the roof of vehicles, so that the outflow of the pressure relief devices should be vertically upward away from the vehicle. Additional changes in the direction of PRD outflow will be discussed further while anticipating findings and conclusions from work currently being done in North America on this subject.
- 7.4 *Coatings to protect metal CNG cylinders against corrosion (Germany/Netherlands):* Germany and the Netherlands advocated to require a mandatory exterior protection of cylindrical gas tanks instead of leaving the decision up to the manufacturer. This results from two incidents with CNG cylinders in Germany that were subjected to corrosion and that exposed metal parts of CNG cylinders (i.e. Types 1 and 2) should be coated to avoid corrosion. The amendment was adopted over the objections of NGV Global that such protection is already covered by R.110 and, if amended, will no longer conform to ISO standards.
- 7.5 *Type approval under Series 2 amendments of R. 110.* As from 1 September 2018 Contracting Parties applying this Regulation 110 shall grant approvals only if the vehicle type to be approved meets the requirements of Part II of this Regulation as amended by the 02 series of amendments to this Regulation. Also, however, Type approvals of components other than fuel rail granted according the 01 series of amendments shall remain valid and shall be accepted for the purpose of their installation on vehicles as long as the requirements for the specific component have not changed by any series of amendments.
- 7.6 *Terms of Reference (ToR) for an Informal Working Group to revise the provisions of Regulation No. 110* submitted by NGV Global was rescinded because of the concerns of some European NGV stakeholders that renumbering of R.110 provisions would require re-certification of their equipment. A strategy to deal with inconsistencies and possible contradictions in R.110 will be discussed by NGV stakeholders in Paris on 5th June 2015 at meetings of the associations' technical experts.
- 7.7 *Japan Study Group on CNG and welded steel cylinders:* GRSG agreed to resume discussion on the outcome of a "Study group for CNG cylinders" established in Japan for the investigation of safety related issues in Regulation No. 110. Japan will prepare a Working Document to remove welded steel cylinders from the regulation for presentation at the 109th meeting of the GRSG. Japan also wants clarification of labelling requirements for hydrogen cylinders.
- 7.8 *Mandatory automatic and manual valves on LNG tanks.* The Netherlands introduced a requirement to mandate LNG automatic valves on LNG fuel tanks. There was discussion about the use of the term 'LNG automatic valve' since no such device is in

use (a CNG automatic valve is used) so the initials 'LNG' were removed at the request of NGV Global. But further investigation of R.110 related to LNG automatic valves (used in 12 other places in R.110) will have to be done.

7.9 WP.15 (ADR) Update

There was an attempt by Germany and Sweden to postpone the adoption of the agreement from November 2014 to allow LNG as a fuel for ADR trucks. This was due to questions from both delegations about LNG safety and, among other things, the impact on the load of an ADR vehicle in a severe accident. After discussion, the decision was taken not to change the LNG provisions; also since LNG trucks are now allowed in five countries due to a multi-lateral agreement allowing ADR certified trucks on LNG possible in advance of the new rule taking effect in January 017. CNG and LPG are advocated for use on ADR trucks by NGV Global and AEGPL. Editorial changes will be made in the Working Document already prepared and will be submitted for reconsideration at the next ADR in November 2015.

7.10 EU – Potpourri amendment

The amendment proposed by the European Commission on NMHC and THC emissions was discussed in Council and Parliament. The Parliament Committee ENVI and Council were both introducing alternative proposal to this issue. The outcome is unsure.

V. HDDF TF: drafting a new UNECE Regulation on the type approval of Retrofit Heavy Duty Dual Fuel (HDDF) systems.

8. The HDDF TF made a lot of progress during this GFV meeting on the basis of a presentation from the Task force on the key issues and some drafting activity were done on the text of the new regulation.

VI. GFV wrap up of HDDF TF activities and next steps.

9. A progress review was made as to where the HDDF TF stands and what remains to move forward with documentation. It is clear that The GFV will not present an informal document of a draft of a new UNECE Regulation on the type approval of retrofit HDDF systems during the coming GRPE. Some fundamental issues are still under discussion in the TF and GFV. There is a delay of minimum 6 months.

VII. Preparation GFV-41 meeting during GRPE in June in Geneva

10. The secretariat and the Chair will prepare an agenda for the coming GFV meeting in Geneva which will take place on the Monday 8th June 2015 from 14:30-17:30 in Room XXVII.

VIII. AOB

11. No other business was presented.

IX. Planning next Meetings of GFV & HDDF TF

12. Suggestion to complete all the Open Issues List and second half of year work on actual drafting language.
13. Drafting Meetings for HDDF TF
 - Tuesday 26th May: 09.00-11.00
 - Tuesday 23rd June: 09.00-11.00
 - Tentative Tuesday 30 June: 09.00-11.00
 - Tentative GFV 27th October 10.00-17.00 Brussels location to be determined (Penny to check at the Commission; back-up RDW).

X. Closing

14. Mr. Rijnders closed the meeting and thanked everyone for making the trip to Zoetermeer.

PARTICIPANTS

André Rijnders (RDW) (Chairman, GFV)
Henk Dekker (TNO) Chairman, HDDF TF-Retrofit
Jeff Seisler (NGV Global/Clean Fuels Consulting) (Co-Secretariat)
Salvatore Piccolo (AEGPL) (Co-Secretariat)
Panagiota (Penny) Dilara (European Commission DG GROW)
Alberto Castagnini (AEB)
Alexander Stoehr (AEGPL)
Javier Lebrato (NGVA Europe)
Jasper van Sambeek (Prins Autogassystemen)
David Castro-Moreira (MAN Truck & Bus)
On the phone:
Andrew Whitehouse (CAP)
Walter Bleuler (German Ministry of Transport)