

Minutes of the 6<sup>th</sup> meeting of the GFV informal group on Gaseous Fuel Vehicles  
Held 26 May 2009 in Brussels

The GRPE informal group on Gaseous Fuelled Vehicles (GFV) held its sixth meeting in Brussels, on 26<sup>th</sup> May 2009 under the chairmanship of Mr. André Rijnders (Netherlands). All working papers of the informal group are publicly available at the GRPE website at:

<http://www.unece.org/trans/main/wp29/wp29wgs/wp29grpe/gfv06.html>

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## **I. WELCOME**

1. The Chairman opened the sixth informal group meeting by thanking the European Commission for offering the facilities and welcomed all participants. Apologies for delays in starting the meeting due to weather-related transportation delays from the Netherlands.

## **II. REVIEW AND ADOPTION OF THE AGENDA**

Documentation: Working paper GFV-06-01 (Agenda).

2. The agenda is approved for today without changes.

## **III. ADOPTION OF MEETING MINUTES OF THE FIFTH GFV MEETING**

Documentation: Working paper GFV-05-06

3. The minutes of the last meeting are adopted without changes.

## **IV. COMMENTS ON NON-METHANE HYDROCARBON (NMHC) REGULATION**

4. Mr. Rijnders reported the results of the Commission removing the NMHC issue from the current review of R.115 due to a lack of vehicle emissions data supplied by the industry. But now, however, the industry and government stakeholders are engaged in different data generation activities. Any correction factors that will be developed would be based on empirical data.

5. Mr. Bassi has organised a test program with the retrofit manufacturers that will test two cars: one is an OEM with a methane catalyst. Then the exhaust system will be changed for gasoline operation in order to see the difference in the exhaust gases due to the change in the catalyst. The second aspect will be to do the reverse testing; testing a gasoline car and then repeating the test after replacing the exhaust system with a methane catalyst. In each change of test, however, the engines will be retuned for the appropriate fuel, gasoline or natural gas. The results could be available at the end of July 2009. This will be done on contract with the European Commission (JRC).

6. The IANGV and NGVA Europe have sent a formal letter to a large number of NGV system manufacturers and installers requesting data to support the GFV efforts. So far, only one Italian company has provided data in response to the request for data.
7. Mr. Rijnders said that the Dutch RDW also will create a small program to test vehicles to obtain data. Mr. Dekker (TNO) said they will test three retrofit vehicles and one OEM CNG vehicle, as planned now, depending upon the available budget. The measurements will be made both in front of and behind the catalyst. Euro 4 vehicles will be used. They are considering light duty vehicles and possibly a small van, but these will be decided. The program will start shortly and, hopefully, the data will be ready in July.
8. CLEPA (Mr. Pierre Laurent) has provided input in writing indicating (GFV-06-03): “We believe that the proposed (but deleted from the final document) switch from HC to NMHC should be pursued for all fuels, not only for CNG and LPG, and it should be pursued for OEM and retrofit vehicles in parallel, i.e. in R83/R49/R115.”
9. The chairman indicated that there is a misunderstanding from CLEPA on that point, he said that people not present at the last GFV meeting should be made aware of what we do. The next meeting in Geneva during before the GRPE session will provide for a good opportunity to do that.
10. Regarding the ‘factor’ to be included in the amendment, Mr. Radzimirski indicates that different vehicles at different levels of emissions attainment (Euro 1- Euro 4) result in different emissions values achieved.
11. At this stage there will be no further documents to be included in the upcoming GRPE in June 2009, but a formal document is anticipated before the January 2010 meeting.

## **V. PROPOSED CHANGES IN REGULATION 115 BY THE EXPERT FROM POLAND**

Working Document: GFV-06-02 (Comments on Regulation 115 from the Polish Delegate).  
Most of the noted changes (below) are identified in Working Document (GFV-07-02)  
Please note that several errors and mistakes have been found in that document.

12. Mr. Radzimirski proposed to use two ‘blocks’ within the regulation: one for light duty (emissions and power) –par. 6.1.2. and a second for heavy duty vehicles (for which there are no provisions currently) –par 6.1.3.. The group agreed to this principle while noting the large amount of working to do that (note: par.6.1.1 should probably be reworked for clarification).
13. Paragraph 1.4: In addition to the reference to Regulation 96/69 (add ‘as amended’) by Regulation 98/77.
14. Paragraph 2.1.1: agreed to suggested changes.
15. The group agrees to shift the focus of the discussion from the Section 2 paragraphs to the changes proposed in Section 6.

16. Paragraph 6.1.1.1.4. Include ‘the plate,’ which has information regarding the retrofit system to be defined as part of the retrofit system. Agreed.
17. Paragraph 6.1.1.2 (LPG components) changes are agreed.
18. Paragraph 6.1.1.3: (LPG components) No changes are agreed at this time (i.e. adding ‘cylindrical’ to describe the fuel container) as the Annex 5 must be altered together with this part. This will be addressed at a later time.
19. Paragraph 6.1.2. : Add M1 and N2 vehicles with reference mass not exceeding 2610 kg.
20. Paragraph 6.1.2.2: Discussion of the removal of the reference to ‘dual fuel systems’ in the text. An amendment (or amendments) is anticipated in the near future from one or more national delegates. Additionally, CLEPA (Pierre Laurent) has provided input in writing as follows: “We believe the option in R115 regarding dual fuel diesel operation should not be deleted. Further work is necessary on concepts like dual fuel and mixed fuel as indicated earlier by us.” After some discussion, it is agreed to leave in the language regarding dual fuel engines in anticipation of greater interest in providing amendment language to R.115.
21. Between 6.1.2.1 and 6.1.3 it remains important to distinguish the difference between light duty and heavy duty vehicles. Paragraph 6.1.2.1. would be changed according to GFV-06-02 in order to include references to Directive 70/220EC and Regulation 715/2007.
22. Proposed paragraph from 6.1.2.4.1 (measurement of tailpipe emissions) – please note that paragraph relates to par.6.1.2.4.1.1 of the GRPE-2009-19- remains unchanged, against the recommended proposal/change.
23. New text of Paragraphs 6.1.2.3. & 6.1.2.4 agreed in principle
24. Proposed paragraph 6.1.2.4.2.1: agreement on the proposed text, relates to paragraph 6.1.2.4.1.2.1. of GRPE-2009-19. AEGPL will provide a footnote to remind the obligation of car manufacturers via Regulation 715/2007 and its access to vehicle repair and maintenance information provisions.
25. Proposed paragraph. 6.1.2.4.2.2.: agreement on the proposed text, this corresponds to paragraph 6.1.2.4.1.2.2. of GRPE-2009-19
26. Editorial changes to paragraph. 6.1.2.4.1.4., → correction of a mistake.
27. Proposed paragraph 6.1.2.4.3: Suggested changes are not adopted. This will be reviewed in the future.
28. Proposed paragraphs 6.1.2.4.4 & 6.1.2.4.5 (emissions test procedures)- current par. 6.1.2.4.1.6.& 6.1.2.4.1.7.: In principle, combining two paragraphs into one so it pertains both to petrol and gaseous fuels is understood and agree. Inclusion of all the list of Directives into the first paragraph is seen as beneficial, however, the suggested changes are

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not adopted at this time until the full R.115 document text is changed, to ensure the references to other paragraphs are correct.

29. Paragraph 6.1.2.4.6 (number of emissions tests) is not changed.

## **VI. TERMINATION OF THE DAY'S WORK (16.15)**

30. At this time the group terminates its work for the day. There is concern by the Chairman and others that too many major structural changes in the document at this time will confuse the organization of the original document (including references to different paragraphs within the body of the text).

## **VII. NEXT MEETING**

31. A description of the work accomplished and the changes agreed upon will be explained at the next meeting of the GFV on 9<sup>th</sup> June 2009 in Geneva prior to the next GRPE meeting.

### **Annex 1**

#### **Participants 26 May 2009**

- André Rijnders, Chairman (NL. RDW)
- Jeff Seisler, Co-secretariat (IANGV/Clean Fuels Consulting)
- Arnaud Duviolguerbigny, Co-secretariat (AEGPL)
- Petter Asman (DG Enterprise, European Commission)
- Stanislaw Radzimirski, (PL. MTI)
- Aldo Bassi (ISO, IANGV and NGV Europe)
- Henk Dekker (TNO)
- Salvatore Piccolo (5<sup>th</sup> March)
- Antonio Erario (IT, MIT)
- Francesco Gagnolati (LandiRenzo)
- Sebastiaan Bleuanus (Teleflex/GFI)
- Klaus Steininger (DG Enterprise, European Commission)