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Report of the Working Party on Pollution and Energy on its sixty-fourth session

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I. Attendance

The Working Party on Pollution and Energy (GRPE) held its sixty-fourth session from 5 to 8 June 2012, with Mr. Christoph Albus (Germany) as Chair. Experts from the following countries participated in the work following Rule 1(a) of the Rules of Procedure the World Forum for Harmonization of Vehicle Regulations (WP.29) (TRANS/WP.29/690, as amended): Austria; Belgium; Canada; China; Czech Republic; France; Germany; Hungary; India; Italy; Japan; the Netherlands; Poland; the Republic of Korea (Korea); the Russian Federation; South Africa; Spain; Sweden; Switzerland; the United Kingdom of Great Britain and Northern Ireland (UK); the United States of America (USA). Experts from the European Commission (EC) also participated. Experts from the following non-governmental organizations took part in the session: the Association for Emissions Control by Catalyst (AECC); the Association of European Manufacturers of Internal Combustion Engines (EUROMOT); the Engine Manufacturers Association (EMA), the European Association of Automobile Suppliers (CLEPA/MEMA/JAPIA); the European Federation for Transport and Environment (T&E); the European Liquefied Petroleum Gas Association (AEGPL); the International Association for Natural Gas Vehicles (IANGV/NGV Global); the International Automobile Federation (FIA), the International Motorcycle Manufacturers Association (IMMA), the International Organization of Motor Vehicle Manufacturers (OICA), and the Natural Gas Vehicles Association Europe (NGVA Europe). Upon the special invitation of the Chair, the session was also attended by experts from: the Technical Committee of Petroleum Additive Manufacturers in Europe (CEFIC-ATC), Alset GmbH, Hyundai, and UMICORE.

II. Adoption of the agenda (agenda item 1)

Documentation: ECE/TRANS/WP.29/GRPE/2012/5,

Informal document GRPE-64-01-Rev.2

- 2. GRPE noted GRPE-64-01-Rev.2 on informal group meetings and adopted the agenda ECE/TRANS/WP.29/GRPE/2012/5, adding the following new items to agenda item 14:
 - (a) International Whole Vehicle Type Approval (IWVTA);
 - (b) Recyclability of M_1 and N_1 vehicles;
 - (c) Vehicle Propulsion System Definitions (VPSD).
- 3. The informal documents distributed during the session are listed in Annex I to this report.
- 4. GRPE delegates were informed that the next session of GRPE will take place from 15 to 18 January 2013 and that the deadline for the submission of official working documents is 19 October 2012.

III. Report on the last session of the World Forum for Harmonization of Vehicle Regulations (WP.29) (agenda item 2)

Documentation: ECE/TRANS/WP.29/1095

- 5. The secretariat reported on the last session (held in March 2012) of the World Forum for Harmonization of Vehicle Regulations (WP.29): WP.29 was informed about the delay of four months in the activities of the GRPE informal working group on the Worldwide harmonized Light vehicles Test Procedure (WLTP) by the GRPE Chair, and that the World Forum noted that a special GRPE session in the autumn of 2013 may be required to allow the possibility to adopt a UN GTR at its March 2014 session (ECE/TRANS/WP.29/1095, para. 39 and Annex III).
- 6. The secretariat mentioned that WP.29 agreed to extend the mandate of the informal working group on Retrofit Emissions Control devices (REC) for another two years, also acknowledging the intention of the group to introduce two levels of stringency (ECE/TRANS/WP.29/1095, para. 40).
- 7. The secretariat mentioned that WP.29 was informed that, despite some delay in the work of the GRPE informal working group on heavy duty hybrids (HDH), the activities were expected to remain within the overall time line (ECE/TRANS/WP.29/1095, para. 114).
- 8. GRPE noted that WP.29 endorsed the proposal of the Chair of GRPE to establish an informal working group on Vehicle Propulsion System Definitions (VPSD) under GRPE, it agreed that it should be chaired by Germany and that it should be open for participation to all interested parties, and it approved its terms of reference (ECE/TRANS/WP.29/1095, para. 101).
- 9. On the International Whole Vehicle Type Approval (IWVTA), the secretariat reported on the proposal introduced to WP.29 by the representative of Japan (and Vice-Chair of its informal group on IWVTA) concerning a guideline for the subsidiary Working Parties (GR) to review the technical regulations applicable to IWVTA and the need to nominate IWVTA ambassadors for each GR to assist the GR and monitor the work progress made (ECE/TRANS/WP.29/1095, para. 58).
- 10. The secretariat reminded GRPE that written instructions have been prepared to ensure that the adopted Corrigenda fully meet the criteria set up by the Office of Legal Affairs (OLA) (ECE/TRANS/WP.29/1095, Annex II). The secretariat also reported that WP.29 endorsed the proposal to use static or dynamic references to UN Regulations on a case by case basis.

IV. Light vehicles (agenda item 3)

A. Worldwide harmonized Light vehicles Test Procedure (WLTP)

Documentation: Informal documents GRPE-64-27, GRPE-64-28 and GRPE-64-30

- 11. The Secretary of the WLTP informal working group introduced GRPE-64-27, containing an updated roadmap, illustrating its main modifications and confirming the need for a special GRPE session, in late 2013, for the final review and adoption of the draft UN GTR.
- 12. The Secretary of the WLTP informal working group also reported on the progress made by the sub-group on the Development of the Harmonized driving Cycle (DHC), introducing GRPE-63-28. He summarized the results of validation phase 1, he introduced briefly the profile of the version 5 of the World Light Duty Test Cycle (WLTC), and touched upon the work on the gear shift prescription. He mentioned that five out of nine open issues have been solved, explaining that further discussion is needed for cycle

modifications and next actions, with a solution expected by the end of the year. He added that mode construction and gear shift points were the remaining items to address.

- 13. The WLTP Secretary reported about the proposal from Japan to introduce further modifications to version 5 of WLTC. The expert from the EC expressed some concerns on such modifications to the test cycle, underlining that the EC favours the version 5 of the WLTC, as agreed before. The experts from France and Italy underlined the importance of the representativeness of the test cycle with respect to pollutant emissions, CO₂ emissions and fuel consumption, also underlining the need to take into account regional specificities and to the importance of the WLTC for accurate consumer information, since the WLTC is expected to be used for the characterization of energy efficiency labels.
- 14. The Chair of the sub-group on the Development of the Test Procedure (DTP) introduced GRPE-64-30, informing GRPE on the development of validation phase 2 by the Validation Task Force (VTF), on the activities of the Lab Process-Internal Combustion Engines (LabProcICE) subgroup, on the work of the Lab Process-Electric Vehicles (LabProcEV) sub-group, and the progress of the Additional Pollutants (AP) sub-group. Speaking about the UN GTR drafting work, he announced a draft UN GTR text should be submitted at the next GRPE session.
- 15. GRPE took note of the updated roadmap, acknowledging it does not result in a postponement of the WLTP finalization. The Working Party agreed that the special session the final adoption of the draft GTR should be held back to back with the WP.29 session of November 2013, subject to the confirmation from WP.29 and the secretariat. GRPE also agreed that the WLTP subgroups should meet in conjunction with its session in January 2013 (note by the secretariat: at its 157th session, WP.29 gave its consent to hold the special session of GRPE on Thursday afternoon, 14 November 2013).

B. Mobile Air-Conditioning Test Procedure (MACTP)

Documentation: Informal document GRPE-64-23

- 16. The Chair of the informal group on MACTP reported on the progress of the work (GRPE-64-23). He illustrated the contents of presentations given at the last meeting, held prior to the GRPE session, underlining the importance of the MACTP work for improved consumer awareness and the promotion of Mobile Air Conditioning (MAC) system efficiency. He informed GRPE about the time schedule of the pilot test phase and added region-specific information from Europe and Japan.
- 17. GRPE acknowledged the progress made by the group and agreed that it should meet in conjunction with its next session, in January 2013.

C. UN Regulation No. 83 (emissions of M_1 and N_1 vehicles)

Documentation: ECE/TRANS/WP.29/GRPE/2012/6/Rev.1,

ECE/TRANS/WP.29/GRPE/2012/11/Rev.1 and

informal documents GRPE-64-06, GRPE-64-15 and GRPE-64-21

18. The Chair of the informal group on Gaseous-Fuelled Vehicles (GFV) presented ECE/TRANS/WP.29/GRPE/2012/6/Rev.1, proposing to amend UN Regulation No. 83 regarding the simultaneous use of gas and petrol under certain conditions on some bi-fuel vehicles equipped with petrol direct injection systems. He also introduced GRPE-64-21 (updating GRPE-64-06), proposing to amend ECE/TRANS/WP.29/GRPE/2012/6/Rev.1 for issues concerning the G_{20} and G_{25} reference fuels. Responding to a question from the expert

from OICA, the GFV Chair clarified that the proposal assured the necessary accuracy needed for type approval. Similar proposals concerned UN Regulation No. 115 (para. 63.).

- 19. The expert from OICA introduced ECE/TRANS/WP.29/GRPE/2012/11/Rev.1, proposing to align UN Regulation No. 83 with the Regulation (EU) No. 566/2011. He explained that the initial transposition of the Euro 5 requirements could not take these amendments into account because they have been published later. He also underlined that clarity has been introduced to the definition of cold start, in response to the concerns raised by the expert from Poland at the sixty-third GRPE session.
- 20. The expert from the UK requested to revise the amendment proposed for paragraph 5.2.3., Table A so that the text "particulate number" is replaced by "particle number".
- 21. The secretariat introduced GRPE-64-15, containing a proposal to delete the references made to Annex 4 in Supplements 1 and 2 to the 06 series of amendments (Revision 4) to UN Regulation No. 83, since they include changes to Annex 4, while Annex 4 is missing from the text of the Revision 4 of the UN Regulation.
- 22. GRPE adopted ECE/TRANS/WP.29/GRPE/2012/6/Rev.1, as amended by GRPE-64-21, as well as ECE/TRANS/WP.29/GRPE/2012/11/Rev.1, incorporating the amendments proposed in GRPE-64-15 and correcting it as indicated below:

Paragraph 5.2.3., Table A, replace "particulate number" by "particle number".

GRPE requested the secretariat to submit these two proposals to WP.29 and AC.1 for consideration at their November 2012 sessions, as Supplement 3 to the 06 series of amendments to the UN Regulation No. 83.

D. UN Regulation No. 101 (CO₂ emissions/fuel consumption)

Documentation: ECE/TRANS/WP.29/GRPE/2012/8/Rev.1

- 23. The expert from OICA introduced ECE/TRANS/WP.29/GRPE/2012/8/Rev.1, containing a proposal to add transitional provisions to the 01 series of amendments to UN Regulation No. 101 to align it with the 06 series of amendments of UN Regulation No. 83.
- 24. GRPE adopted ECE/TRANS/WP.29/GRPE/2012/8/Rev.1 and requested the secretariat to submit the proposal to WP.29 and AC.1 for consideration at their November 2012 sessions, as Supplement 2 to the 01 series of amendments to the UN Regulation No. 101.

E. Upcoming proposals on UN Regulations Nos. 68, 83, 85, 101 and 103

25. GRPE noted that there were no new documents submitted under this agenda item.

V. Heavy duty vehicles (agenda item 4)

A. Heavy Duty Hybrids (HDH)

Documentation: Informal documents GRPE-64-07, GRPE-64-13 and GRPE-64-14

26. The Secretary of the informal group on HDH introduced GRPE-64-07, GRPE-64-13 and GRPE-64-14. He illustrated the results of the ninth and tenth HDH informal group meetings and summarized the results of the research programme on an emissions and CO₂ test procedure for HDH (now finalized). Underlining that more work is needed before a

worldwide test procedure can be drafted, he stated that the discussion on chassis dynamometer and power-pack testing is expected to continue on the basis of inputs from ongoing programs by the Contracting Parties (with the delivery of inputs expected by the end of 2012), that the validation step 1 based on SILS (Software-in-the-loop simulation) is expected to start in June 2012, and that the validation step 2 with real heavy duty vehicles should start around March 2013.

- 27. Illustrating an updated roadmap, the HDH Secretary announced a delay of a few months with respect to the original plan. Following some considerations on financial issues related to validation step 1, he outlined the agenda of the next meetings of the HDH group.
- 28. GRPE acknowledged the work progress of the HDH informal group, endorsed validation 1 and the revised roadmap, and agreed that a formal request to WP.29 to extend the mandate of the HDH group is not necessary for the time being. GRPE agreed that the group should meet in conjunction with its session in January 2013.

B. Retrofit Emission Control devices (REC)

Documentation: Informal document GRPE-64-04

- 29. The Chair of the informal group on REC mentioned that good progress is being achieved in drafting the UN Regulation and added that a draft UN Regulation is expected to be ready by the next GRPE session, in January 2013.
- 30. GRPE took note of the work progress and agreed that the group should meet in conjunction with its session in January 2013.
- 31. The REC Chair explained some issues that may emerge from the way the group intends to tackle the need for two levels of stringency in the UN Regulation (original version and, in parallel, a first series of amendments), illustrating the content of a letter addressed to GRPE participants (GRPE-64-04) asking for an indication of the level of stringency that they would be ready to accept. Having reported that he received an indication from some member States of the European Union to accept a higher stringency level (level 2), and having informed GRPE that the Russian Federation was the only Contracting Party that indicated its willingness to adopt lower stringency requirements (level 1), he invited other Contracting Parties to express their intentions. He also clarified that, if level 1 requirements are favoured by less than 20 per cent of the Contracting Parties, the group will have to use the level 2 requirements directly.
- 32. The expert from the Russian Federation confirmed the intention to apply level 1 of stringency. The expert from the UK warned that, since there is no European legislation on retrofit systems leading to the need to accept only level 2 stringency levels, the UK would see no issues with the support of the approach involving two levels of stringency by single member states of the European Union. The expert from the European Commission clarified that Germany and Italy indicated their willingness to accept level 2 stringency. In disagreement with the expert from the UK, he also stated that, should the European Union adopt the stringency level 2, then single member States would not be in a position to adopt a different level of stringency.
- 33. GRPE asked the experts from the EC and the UK to clarify the situation by the end of August 2012, and asked all Contracting Parties to indicate, also by the end of August 2012, their position on the level of stringency to the REC Chair.

C. UN Regulation No. 49 (emissions of C.I. and P.I. (LPG and CNG) engines)

Documentation: ECE/TRANS/WP.29/GRPE/2012/13/Rev.1 and

informal documents GRPE-64-16, GRPE-64-17, GRPE-64-18, and

GRPE-64-19

34. The Chair of the GFV group presented a proposal to introduce complementary specifications to the 06 series of amendments of UN Regulation No. 49, in order to extend Euro VI pollutant emission requirements to dual-fuel heavy duty engines and vehicles (ECE/TRANS/WP.29/GRPE/2012/13/Rev.1). He also introduced GRPE-64-16, GRPE-64-17, GRPE-64-18 and GRPE-64-19, containing a presentation of the proposal, corrections to ECE/TRANS/WP.29/GRPE/2012/13/Rev.1, complementary text for those parts of ECE/TRANS/WP.29/GRPE/2012/13/Rev.1 that were not yet finalized at the moment of the submission, as well as a consolidation of the base document, the corrections and the complementary text. He added that the proposal also includes a clarification of issues related to the use of commas to separate decimal digits but also as thousand separators.

35. GRPE adopted GRPE-64-19 (updating ECE/TRANS/WP.29/GRPE/2012/13/Rev.1), as reproduced in Annex III (ECE/TRANS/WP.29/GRPE/64/Add.1), and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their November 2012 sessions, as Supplement 1 to the 06 series of amendments to UN Regulation No. 49.

D. UN GTR No. 4 (Worldwide harmonized Heavy-Duty Certification procedure)

Documentation: ECE/TRANS/WP.29/GRPE/2012/10/Rev.1

- 36. The expert from OICA introduced ECE/TRANS/WP.29/GRPE/2012/10/Rev.1, containing a proposal to correct the wrong references to a few paragraphs in UN GTR No. 4.
- 37. GRPE adopted ECE/TRANS/WP.29/GRPE/2012/10/Rev.1 and requested the secretariat to submit it to WP.29 and AC.3 for consideration at their November 2012 sessions as Corrigendum 2 to Amendment 1 to UN GTR No. 4.

E. UN GTR No. 5 (WorldWide harmonized Heavy duty On-Board Diagnostic systems)

Documentation: ECE/TRANS/WP.29/GRPE/2012/12/Rev.1

- 38. The expert from OICA presented a proposal addressing some concerns identified during the preparation of legislation implementing the Euro VI emission levels (i.e. Regulation (EC) 595/2009) and includes a revision of the disablement conditions of on-board diagnostic systems (ECE/TRANS/WP.29/GRPE/2012/12/Rev.1).
- 39. The expert from Japan identified an editorial error in the suggested amendment to paragraph 5.2.2., since subparagraph (c) is repeating subparagraph (b).
- 40. GRPE adopted ECE/TRANS/WP.29/GRPE/2012/12/Rev.1, as amended below:

Module B, paragraph 5.2.2., delete the text of point (c) and renumber point (d) as point (c).

GRPE requested the secretariat to submit it to WP.29 and AC.3 for consideration at their November 2012 sessions as Amendment 1 to UN GTR No. 5.

F. Upcoming proposals on UN Regulation No. 49 and UN GTR Nos. 4, 5 and 10

41. GRPE noted that no new document was distributed under this agenda item.

VI. Agricultural and forestry tractors, non-road mobile machinery (agenda item 5)

A. UN Regulation No. 96 (diesel emissions (agricultural tractors))

Documentation: ECE/TRANS/WP.29/GRPE/2012/9/Rev.1

- 42. The expert from Italy presented ECE/TRANS/WP.29/GRPE/2012/9/Rev.1 to align UN Regulation No. 96 with the European Directive 2011/87/EU.
- 43. The expert from the Netherlands identified an error in the proposal, since the ratio between the height of the centre of gravity of the tractor and the average minimum track width of all of the axles should be dimensionless.
- 44. GRPE adopted ECE/TRANS/WP.29/GRPE/2012/9/Rev.1, as amended below:

Paragraph 11.19., point (a), amend to read:

"... divided by the average minimum track width for each axle exceeds 0.90, the maximum design speed is restricted to 30 km/h;"

Paragraph 11.19., point (b), amend to read:

"... divided by the average minimum track width of all of the axles exceeds 0.90, the maximum design speed shall not exceed 30 km/h."

GRPE requested the secretariat to submit it to WP.29 and AC.1 for consideration at their November 2012 sessions, as Supplement 1 to the 03 series of amendments to UN Regulation No. 96.

B. Upcoming proposals on UN Regulations Nos. 96 and 120 and on UN GTR No. 11

Documentation: Informal documents GRPE-64-03 and GRPE-64-25

- 45. The expert from the EC gave a presentation (GRPE-64-25) introducing GRPE-64-03, which contains a proposal to amend UN Regulation No. 96 so that its provisions are aligned with the 8 mode cycle of European Directive 2010/26/EU and the 2012 amendment of European Directive 97/68/EC.
- 46. GRPE agreed and requested the secretariat to distribute GRPE-64-03 as an official document for consideration at the next GRPE session in January 2013.

VII. Particle Measurement Programme (PMP) (agenda item 6)

47. The Chair of the informal group on the PMP reported that there were four ongoing tasks within PMP at present. Firstly he mentioned the heavy duty round robin testing, with the submission of outstanding test data from participating laboratories expected imminently and the Joint Research Centre (JRC) of the EC expecting to be in a position to present an overview of the results for discussion at the end of June. Secondly, he stated that the JRC is now conducting the final tests of the Volatile Particle Remover (VPR) calibration round robin and will also be ready to present these results at the end of June. Thirdly, he noted that, following reporting of these data, the PMP group planned to develop updated

calibration procedure guidance documents this is a shared activity with WLTP-DTP Particulate Mass-Particle Number (PM-PN) subgroup. Finally, he cited the investigation of the feasibility of extending particle number measurement to sub 23nm particles, as agreed at the last GRPE session.

- 48. The Chair of the PMP informal group announced his retirement from the role due to the fact that he would shortly be taking up a new role elsewhere in UK Government. He thanked PMP and GRPE members for their support over the years. During a discussion on the leadership of the ongoing PMP activities, it was agreed that the JRC and the PM-PN subgroup of WLTP-DTP would jointly organize a conference call, to be held in early July 2012, to present and discuss Heavy Duty and VPR Round Robin results. The WLTP-DTP PM-PN sub-group will pursue calibration procedure activities, while the JRC will consider the possibility to chair discussions on measurements of sub 23nm particles.
- 49. Having first acknowledged the progress made by the group, GRPE supported the idea to hold a meeting or a conference call by the end of July 2012, asking the JRC to chair it. GRPE also invited interested Parties to make proposals for the position of PMP Chair, aiming for an identification of a candidate and a definition of the framework for the development of PMP activities by the GRPE session of January 2013.

VIII. Motorcycles and mopeds (agenda item 7)

Upcoming proposals on UN Regulations Nos. 40 and 47 and on UN GTR No. 2

Documentation: Informal documents GRPE-64-02, GRPE-64-05, GRPE-64-09,

GRPE-64-10, GRPE-64-11, GRPE-64-12, GRPE-64-22 and GRPE-

64-26

- 50. The expert from Japan introduced a proposal for corrigendum to UN GTR No. 2 (GRPE-64-05), to correct some equations in accordance with the units used, as well as a figure on the gear use during acceleration phases.
- 51. The experts from India and IMMA requested more time to analyze this document in detail.
- 52. Taking the new criteria for corrigenda into account, GRPE considered the proposal from Japan as an amendment rather than a corrigendum and requested the expert from Japan to ask for a mandate to amend UN GTR No. 2 from WP.29 and AC.3. GRPE also asked Japan to discuss with India and IMMA the concerns expressed and to submit an updated version of GRPE-64-05, so that the secretariat can distribute it as an official document for consideration at the next GRPE session, in January 2013, subject to the consent of WP.29 and AC.3 on a mandate to amend UN GTR No. 2.
- 53. The expert from the EC introduced documents GRPE-64-02 and GRPE-64-09. He explained the European process of revising type approval procedures for L-category vehicles, introduced a proposal containing the terms of reference for the establishment of an Informal Working Group on International L-category vehicle approval in the area of Environmental Performance and Propulsion Requirements (IEPPR), confirmed the invitation to GRPE participants to attend a stakeholder consultation workshop on the topic, and briefly outlined its content. He announced that the documents GRPE-64-10, GRPE-64-12 and GRPE-64-22 were to be introduced during the stakeholder consultation workshop.
- 54. The expert from Switzerland asked whether there would also be other working groups in other Working Parties subsidiary to WP.29. The expert from the EC clarified that

the main focus is on environmental issues and that this is not foreseen at the moment, also stating that he would be open to such a development, if needed.

- 55. The expert from the EC introduced GRPE-64-11, containing draft Terms-of-Reference (ToR) for the IEPRR informal working group. The expert from the UK introduced GRPE-64-26, elaborating on the draft ToR of GRPE-64-11 with the aim to align them with the overall objectives of regulatory harmonization, technology neutrality and real-world representativeness in order to clarify the aims of the group. He explained that GRPE-64-26 also contains the addition of procedural issues such as project plans, document submission deadlines, meeting arrangements. He noted that the candidates as of Chair and Secretary should also be specified once they have been identified.
- 56. The expert from Japan supported the initiatives of the EC and the UK and expressed interest in the activity. The expert from IMMA thanked the EC and the UK for presenting the draft ToR and for considering items that help its effectiveness. He underlined the notion that the informal group should at least maintain, and ideally increase, current levels of harmonisation, he supported the idea of real world representativeness of the tests considered in this activity, and announced that IMMA is willing to discuss engagement in the informal group after a clarification of its scope and its ToR.
- 57. GRPE expressed the intention to agree, in principle, to ask for a mandate for the setup of an informal working group as soon as some remaining issues, such as the identification of an informal group Chair and Secretary, will be addressed. The GRPE Chair asked Japan, the UK, the EC, IMMA and other interested Parties to work on this, so that a formal request for a WP.29 mandate can be finalized at the next GRPE session, in January 2013. He also suggested that the work should be set up in a two-step approach, first focusing on the development of a roadmap and then concentrating on the development of the draft Regulation(s).

IX. Gaseous and Hydrogen Fuelled vehicles (agenda item 8)

A. Gaseous Fuelled Vehicles (GFV)

Documentation: Informal document GRPE-64-20 and GRPE-64-24

- 58. The Chair of the informal group on Gaseous-Fuelled Vehicles (GFV) informed GRPE about the group's activities (GRPE-64-24), reporting on the last four GFV meetings, on issues related to definitions, on the activities of the task force on Liquefied Natural Gas (LNG), and on inputs for a European initiative on the emissions of vehicles using gaseous fuels. He informed GRPE on forthcoming GFV meetings and announced the intention of the group to meet in conjunction with the next GRPE session. The expert from OICA also informed GRPE about the same intention of the Heavy Duty Dual Fuel (HDDF) task force subgroup.
- 59. Having underlined the importance of the substantial work delivered on the HDDF amendments to UN Regulation No. 49, the Chair of the GFV informal group informed GRPE on the group's intention to proceed with amendments to Revision 5 of UN Regulation No. 49, also announcing that an informal document on this is expected for January 2013. Having framed these activities in the context of a plan tackling HDDF retrofitted engines and vehicles, he requested the GRPE endorsement.
- 60. GRPE acknowledged the progress made by the group, endorsed the work plan suggested, and agreed that the group and the HDDF task force should meet in conjunction with the next GRPE session, in January 2013. GRPE also mentioned the need to consider

the decisions suggested in the work plan in more detail, underlining that some of the solutions suggested may require a mandate from WP.29.

- 61. The Chair of the GFV group presented a proposal to amend UN Regulation No. 85 (measurement of the net power), in order to extend its scope to dual-fuel heavy duty engines and vehicles, enabling their type approval (GRPE-64-20, revising GRPE-62-17). He underlined the importance of a rapid adoption of this amendment, and urged GRPE to submit the proposal directly to WP.29 and AC.1 for consideration.
- 62. GRPE adopted GRPE-64-20, as reproduced in Annex IV (ECE/TRANS/WP.29/GRPE/64/Add.1), and requested the secretariat to submit it, on an exceptional basis, as official document to WP.29 and AC.1 for consideration at their November 2012 sessions, as Supplement 6 to UN Regulation No. 85.

B. UN Regulation No. 115 (LPG and CNG retrofit systems)

Documentation: ECE/TRANS/WP.29/GRPE/2012/7/Rev.1 and informal documents GRPE-64-06 and GRPE-64-21

- 63. The Chair of the informal group on Gaseous-Fuelled Vehicles (GFV) presented ECE/TRANS/WP.29/GRPE/2012/7/Rev.1, proposing to amend UN Regulation No. 115, regarding the simultaneous use of gas and petrol in gas mode under certain conditions on some bi-fuel vehicles equipped with petrol direct injection systems. He also introduced GRPE-64-21 (updating GRPE-64-06), concerning the use of G₂₀ and G₂₅ reference fuels and proposing to amend ECE/TRANS/WP.29/GRPE/2012/7/Rev.1. Similar proposals concerned UN Regulation No. 83 (para. 18).
- 64. GRPE adopted ECE/TRANS/WP.29/GRPE/2012/7/Rev.1, as amended by GRPE-64-21, and requested the secretariat to submit a consolidated text to WP.29 and AC.1 for consideration at their November 2012 sessions, as Supplement 5 to the UN Regulation No. 115.

C. Upcoming proposals on UN Regulation No. 115

65. GRPE noted that no new document was distributed under this agenda item.

X. Environmentally Friendly Vehicles (EFV) (agenda item 9)

Documentation: Informal document GRPE-64-29

- 66. The expert from India gave a brief update on the activities of the Environmentally Friendly Vehicles (EFV). He announced that a draft report on the technology advancement since from the first EFV conference, held in Tokyo in 2003 has been drafted and circulated to the EFV Task Force Group (TFG) members. He added that this report will be further developed by the EFV TFG and discussed at the EFV conference scheduled in Baltimore (USA) from 10 to 12 September 2012. He mentioned that further actions will be also be decided by the EFV TFG and WP.29.
- 67. The expert from the USA confirmed the information provided and introduced GRPE-64-29, containing more information on the next EFV conference. The expert from India added that the outcome of the EFV conference is also going to be reported to WP.29 in its November 2012 session.
- 68. GRPE noted the work progress and agreed with the work plan outlined.

XI. Electric Vehicles and the Environment (EVE) (agenda item 10)

- 69. The expert from the USA briefly mentioned that the first EVE informal group meeting (discussing the group's organization, its mandate and its terms of reference) had been scheduled at the end of the GRPE session and announced that the next EVE informal group meeting will be held in September, immediately after the EFV conference in Baltimore (USA).
- 70. GRPE agreed with the work plan outlined.

XII. Fuel Quality (agenda item 11)

- 71. No new documents were distributed during the session. Nevertheless, the expert from OICA informed GRPE about the intention to continue to work in this area, suggesting to keep this item on the agenda.
- 72. GRPE agreed to maintain this agenda item for its next session, in January 2013.

XIII. Exchange of information on national and international requirements on emissions (agenda item 12)

73. No new information on the subject was given during the session.

XIV. Election of officers (agenda item 13)

- 74. In compliance with Rule 37 of the Rules of Procedure (TRANS/WP.29/690 and Amend.1), GRPE called for the election of officers. Mr. C. Albus (Germany) was unanimously re-elected Chair of GRPE for the sessions of the year 2013.
- 75. Following the announcement of his candidature, proposed by the Indian Ministry of Road Transport and Highways, Mr. S. R. Marathe (India) was unanimously elected as Vice-Chair of GRPE for the sessions of the year 2013.

XV. Other business (agenda item 14)

A. International Whole Vehicle Type Approval (IWVTA)

Documentation: Informal documents GRPE-64-08 and WP.29-156-21

- 76. The secretariat introduced GRPE-64-08 to explain the guideline to review the technical regulations applicable to IWVTA, as well as WP.29-156-21, containing a proposal for candidate items for technical regulations applicable to IWVTA and the guideline for GRs to review technical regulations applicable to IWVTA. The secretariat also reported about the proposal by the representative of Japan at WP.29, requiring the nomination of IWVTA ambassadors in each GR, and explained that the ambassadors are expected to assist the GRs and monitor the work progress made.
- 77. GRPE noted that no candidate volunteered to take over the tasks of the IWVTA ambassador. He invited GRPE delegates to propose candidates for this very important field of work. GRPE agreed to introduce IWVTA as an agenda item for the next sessions of GRPE.

B. Recyclability of M_1 and N_1 vehicles

Documentation: Informal document WP.29-157-05

78. The expert from OICA informed GRPE about the submission of WP.29-157-05 to WP.29 and mentioned that she expects WP.29 to assign the responsibility for the development of this work to GRPE.

79. GRPE took note of this information, awaiting the decisions of WP.29.

C. Vehicle Propulsion System Definitions (VPSD)

Documentation: Informal document WP.29-156-26

- 80. The Chair of GRPE introduced WP.29-156-26, containing the terms of reference for a task force group under GRPE to develop a framework system of terms, definitions and classifications on vehicle propulsion systems. He mentioned that, even if the activity of the VPSD would have an impact on the work of several GRs and their informal groups, he expected WLTP to be the main informal group concerned. He underlined that this activity is expected to build bridges across different areas of work in the WP.29 framework. Given the need to start the activities of this informal group, he invited GRPE experts to contact him if they want to be involved in this work, and he requested the secretariat to allocate a specific item on the next GRPE agenda to this task.
- 81. GRPE endorsed this approach.

D. Tributes

82. Learning that Mr. Parkin (UK) would no longer attend the sessions because of his move to the Department of Energy and Climate Change, GRPE acknowledged his considerable contribution to the activities of the group and wished him all the best for his future activities.

XVI. Provisional agenda for the next session

83. The sixty-fifth session is scheduled to be held in Geneva, Palais des Nations, from Tuesday, 15 January, starting at 2.30 p.m. until Friday, 18 January 2012, 12.30 p.m., subject to confirmation by the secretariat (see GRPE-65-01). The following time schedule and provisional agenda were suggested:

A. Informal meetings in conjunction with the next GRPE session proper

- 84. Subject to a confirmation from the secretariat, informal meetings in conjunction with the next GRPE session proper are listed below:
- (a) Informal meeting of the GRPE working group on EVE, 14 January 2013 from $14.30 \ p.m.$ to $17.30 \ p.m.$
- (b) Informal meeting of the HDDF task force of the GRPE working group on GFV, 14 January 2013 from 14.30 p.m. to 17.30 p.m.
- (c) Informal meeting of the GRPE working group on HDH, 15 January 2013 from 9.30~a.m. to 12.30~p.m.

- (d) Informal meeting of the GRPE working group on the MACTP, 15 January 2013 from 9.30 a.m. to 12.30 p.m.
- (e) Informal meeting of the GRPE working group on GFV, 15 January 2013, from 14.30 p.m. to 17.30 p.m.
- (f) Informal meeting of the WLTP, DHC subgroup, 15 January 2013 from 14.30 p.m. to 17.30 p.m.
- (g) Informal meeting of the GRPE working group on REC, 16 January 2013 from 9.30 a.m. to 12.30 p.m.
- (h) Informal meeting of the WLTP, DTP subgroup, 16 January 2013 from 9.30 a.m. to $17.30 \ \text{p.m.}$
- 85. The agendas of these meetings will be prepared by the respective secretaries and distributed to the members of each group prior to each meeting. All meetings will be held without interpretation.

B. Provisional agenda for the sixty-fifth session of GRPE proper

- 86. To be held on Thursday, 17 January 2013, from 9.30 a.m. until Friday, 18 January 2013, 12.30 p.m.:
 - 1. Adoption of the agenda.
 - 2. Report on the last session of the World Forum for Harmonization of Vehicle Regulations (WP29).
 - 3. Light vehicles:
 - (a) Worldwide harmonized Light vehicles Test Procedures (WLTP);
 - (b) Mobile Air-Conditioning Test Procedure (MACTP);
 - (c) UN Regulations Nos. 68, 83, 101, and 103.
 - 4. Heavy duty vehicles:
 - (a) Heavy Duty Hybrids (HDH);
 - (b) Retrofit Emissions Control devices (REC);
 - (c) UN Regulation No. 49
 - (d) UN Global Technical Regulations Nos. 4, 5 and 10.
 - 5. UN Regulations Nos. 85 and 115
 - 6. Agricultural and forestry tractors, non-road mobile machinery:
 - (a) UN Regulations Nos. 96 and 120;
 - (b) UN Global Technical Regulation No. 11.
 - 7. Particle Measurement Programme (PMP).
 - 8. Gaseous Fuelled Vehicles (GFV).
 - 9. Motorcycles and mopeds:
 - (a) International L-category vehicle approval in the area of Environmental Performance and Propulsion Requirements (IEPPR);
 - (b) UN Regulations Nos. 40 and 47;

- (c) UN Global Technical Regulation No. 2.
- 10. Environmentally Friendly Vehicles (EFV).
- 11. Electric Vehicles and the Environment (EVE).
- 12. Vehicle Propulsion System Definitions (VPSD).
- 13. Fuel Quality (FQ).
- 14. International Whole Vehicle Type Approval (IWVTA).
- 15. Exchange of information on national and international requirements on emissions.
- 16. Other business.

[English only]

Annex I

List of informal documents (GRPE-64-...) distributed without an official symbol during the session

	Transmitted by	Agenda item	Language	Title	Follow- up
01- Rev.2	Secretariat	1	Е	Informal group meetings scheduled to be held in conjunction with the 64th GRPE session proper (including the room reservations - see Annex)	(a)
02	EC	7	Е	Invitation and draft agenda of the EC stakeholder consultation workshop – study on the revisions and amendments of International L-category vehicle approval in the area of Environmental Performance and Propulsion Requirements (IEPPR)	(a)
03	EC	5(b)	E	Proposal to align UN Regulation No. 96 with the latest development of the EU nonroad legislation 97/68/EC (as amended in 2012)	(c)
04	REC	4(b)	E	Letter to GRPE participants on how to deal with two stringency levels in one UN Regulation	(a)
05	Japan	7	E	Proposal for corrigendum to UN GTR No. 2	(c)
06	GFV	3(c) and 8(b)	E	Proposal for amendments to documents ECE/TRANS/WP29/GRPE/2012/06 and ECE/TRANS/WP29/GRPE/2012/07 (mass correction factor of reference fuel G ₂₅)	(a)
07	HDH	4(a)	E	Summary report of the Research Program on an Emissions and CO ₂ Test Procedure for Heavy Duty Hybrids	(a)
08	Secretariat	14(a)	E	Development of IWVTA system and involvement of the Working Parties	(a)
09	EC	7	E	Introduction to the process of revising type approval procedures for L-category vehicles (powered cycles, mopeds, motorcycles, tricycles and quadricycles)	(a)
10	EC	7	E	Stakeholder consultation on the revision and amendments of IEPPR: background	(a)

11	EC	7	E	Draft proposal for terms of reference for an informal working group on IEPPR	(a)
12	EC	7	Е	Stakeholder consultation on the revision and amendments of IEPPR: workshop content	(a)
13	HDH	4(a)	E	Informal group on Heavy Duty Hybrids (HDH): report to GRPE	(a)
14	HDH	4(a)	E	Status of the informal group on HDH	(a)
15	Secretariat	3(c)	E	Proposal to delete the references to Annex 4 in Supplements 1 and 2 to the 06 series of amendments to UN Regulation No. 83	(b)
16	GFV	4(c)	E	Status report to GRPE 64 on the type approval of Euro VI dual-fuel engines	(a)
17	GFV	4(c)	E	Proposal correcting working document ECE/TRANS/WP.29/GRPE/2012/13/Rev.1 in view of type-approving Heavy-Duty Dual-Fuel (HDDF) engines	(a)
18	GFV	4(c)	Е	Proposal complementing working document ECE/TRANS/WP.29/GRPE/2012/13/Rev.1 in view of type-approving HDDF engines	(a)
19	GFV	4(c)	Е	Consolidated proposal for an amendment document ECE/TRANS/WP.29/GRPE/2012/13/Rev.1, amending Regulation No. 49 in view of type-approving HDDF engines	(b)
20	GFV	8(a)	Е	Revised proposal for an amendment to Regulation No. 85 in view of type- approving HDDF engines	(b)
21	GFV	3(c) and 8(b)	E	Proposal for amendments to documents ECE/TRANS/WP29/GRPE/2012/06 and ECE/TRANS/WP29/GRPE/2012/07 (G_{20} and G_{25} reference fuels)	(b)
22	EC	7	E	IEPPR draft roadmap,	(a)
23	MACTP	3(b)	Е	Status of the informal group on the Mobile Air Conditioning Test Procedure	(a)
24	GFV	8(a)	E	Status of the informal group on Gaseous Fuelled Vehicles	(a)
25	EC	5(b)	Е	Presentation concerning the alignment of UN Regulation No. 96 with the latest development of the EU non-road legislation 97/68/EC (as amended in 2012)	(a)

26	UK	7	E	Draft proposal for Terms of Reference for the proposed informal working group on IEPPR	(a)
27	WLTP	3(a)	E	Revised WLTP roadmap	(a)
28	WLTP- DHC	3(a)	E	Progress report of World-wide Light-duty Test Cycle	(a)
29	USA	9	Е	International Environmentally Friendly Vehicle (EFV) conference flyer	(a)
30	WLTP- DTP	3(a)	E	Tenth DTP meeting: wrap-up and open issues	(a)

Notes:

- (a) Consideration completed or to be superseded.
- (b) Adopted and submitted to WP.29.
- (c) Resume consideration on the basis of an official document.

Annex II

Informal meetings held in conjunction with the sixty-fourth session of GRPE

- 1. Following the agreement reached at the previous GRPE session, seven informal meetings were held in conjunction with the sixty-fourth session of the GRPE.
- 2. The tenth informal meeting of the GRPE working group on Heavy Duty Hybrids (HDH) was held in the morning of 5 June 2012, with Mr. P. Asman (European Commission) as Chair. A summary of the proceedings of this informal meeting is given in the report above (paragraphs 26-27).
- 3. The fourth informal meeting of the GRPE working group on the Mobile Air-Conditioning Test Procedure (MACTP) was held in the morning of 5 June 2012, with Mr. A. Rijnders (Netherlands) as Chair. A summary of the proceedings of this informal meeting is given in the report above (paragraph 16)
- 4. The twenty-first informal meeting of the GRPE working group on Gaseous Fuelled Vehicles (GFV) was held in the afternoon of 5 June 2012, with Mr. A. Rijnders (Netherlands) as Chair. A summary of the proceedings of this informal meeting is given in the report above (paragraphs 58-59).
- 5. The twelfth informal meeting of the WLTP subgroup on the Development of the Harmonized driving Cycle (WLTP-DHC) was held in the afternoon of 5 June 2012 with Mr. H. Ishii (Japan) as Chair. A summary of the proceedings of this informal meeting is given in the report above (paragraph 12).
- 6. The eleventh informal meeting of the GRPE working group on Retrofit Emission Control devices (REC) was held in the morning of 6 June 2012, with Mr. H. Baarbé (Netherlands) as Chair. A summary of the proceedings of this informal meeting is given in the report above (paragraph 29).
- 7. The tenth informal meeting of the WLTP subgroup on the Development of the Test Procedures (WLTP-DTP) was held on 6 June 2012 with Mr. G. D'Urbano (Switzerland) as Chair. A summary of the proceedings of this informal meeting is given in the report above (paragraph 14).
- 8. The first informal meeting of the GRPE working group on Electric Vehicles and the Environment (EVE) was held in the morning of 8 June 2012 with Mr. Olechiw (USA) as Chair. A summary of the proceedings of this informal meeting is given in the report above (paragraph 69).

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