



**Economic and Social
Council**

Distr.
GENERAL

ECE/TRANS/WP.29/GRPE/58
3 July 2009

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations

Working Party on Pollution and Energy

**REPORT OF THE WORKING PARTY ON POLLUTION AND ENERGY
ON ITS FIFTY-EIGHTH SESSION
(9 – 12 June 2009)**

CONTENTS

	<u>Paragraphs</u>	<u>Page</u>
I. ATTENDANCE.....	1	3
II. ADOPTION OF THE AGENDA (Agenda item 1)	2-3	3
III. REGULATION No. 49 (Emissions of C.I. and P.I. (NG and LPG) engines) (Agenda item 2)	4-13	4
A. Off-Cycle Emissions (OCE) (Agenda item 2(a))	4-5	4
B. Gtr No. 4 on the Worldwide harmonized Heavy Duty Certification (WHDC) procedure (Agenda item 2(b))	6-9	4
C. Gtr No. 5 on the Worldwide harmonized Heavy duty On-Board Diagnostics (WWH-OBD) (Agenda item 2(c)).....	10	5
D. Amendments to heavy duty OBD systems (Agenda item 2(d))	11-12	5
E. Alignment of the scopes of Regulations Nos. 40 and 83 (Agenda item 2(e))	13	6
IV. PARTICLE MEASUREMENT PROGRAMME (PMP) (Agenda item 3)	14-16	6
V. GTR No. 2 ON THE WORLDWIDE HARMONIZED MOTOR- CYCLE EMISSION TEST CYCLE (WMTC) (Agenda item 4).....	17-21	6

CONTENTS (continued)

	<u>Paragraphs</u>	<u>Page</u>
VI. EXHAUST EMISSION TEST PROTOCOL FOR NON-ROAD MOBILE MACHINERY ENGINES (NRMM) (Agenda item 5).....	22-25	7
VII. AMENDMENTS TO UNECE REGULATIONS (Agenda item 6).....	26-43	8
A. Worldwide harmonized Light vehicles Test Procedures (WLTP) (Agenda item 6(a)).....	26-32	8
B. Gaseous-Fuelled Vehicles (GFV) (Agenda item 6(b)).....	33-35	9
C. Regulation No. 83 (Emissions of M ₁ and N ₁ categories of vehicles) (Agenda item 6(c))	36-38	10
D. Regulation No. 85 (Measurement of net power) (Agenda item 6(d))	39	10
E. Regulation No. 101 (CO ₂ emissions/fuel consumption) (Agenda item 6(e)).....	40-41	10
F. Regulation No. 115 (Specific LPG and CNG retrofit systems) (Agenda item 6(f))	42-43	11
VIII. HYDROGEN AND FUEL CELL VEHICLES – SUB-GROUP ENVIRONMENT (HFCV-SGE) (Agenda item 7)	44-45	11
IX. ENVIRONMENTALLY FRIENDLY VEHICLES (EFV) (Agenda item 8)	46-49	11
X. FUEL QUALITY (FQ) (Agenda item 9)	50	12
XI. EXCHANGE OF INFORMATION ON NATIONAL AND INTERNATIONAL REQUIREMENTS ON EMISSIONS (Agenda item 10)	51	12
XII. ELECTION OF OFFICERS (Agenda item 11)	52	12
XIII. OTHER BUSINESS (Agenda item 12)	53	12
XIV. PROVISIONAL AGENDA FOR THE NEXT SESSION	54-55	13
A. Informal meetings in conjunction with the GRPE session proper.....	54	13
B. Provisional agenda for the fifty-ninth session of GRPE proper	55	14

Annexes

I. List of informal documents (GRPE-58-...) distributed without an official symbol during the session	15
II. Informal meetings held in conjunction with the fifty-eighth session of GRPE	17

Annexes (continued)

	<u>Page</u>
III. Adopted amendments to ECE/TRANS/WP.29/GRPE/2009/14 (Regulation No. 49).....	18
IV. Adopted amendments to ECE/TRANS/WP.29/GRPE/2009/4 (gtr No. 2)	20

I. ATTENDANCE

1. The Working Party on Pollution and Energy (GRPE) held its fifty-eighth session from 9 to 12 June 2009, under the chairmanship of Mr. B. Gauvin (France). Experts from the following countries participated in the work following Rule 1(a) of the Rules of Procedure of WP.29 (TRANS/WP.29/690, as amended): Austria; Belgium; Canada; China; Czech Republic; France; Germany; Hungary; India; Italy; Japan; Netherlands; Poland; Republic of Korea; Russian Federation; Slovakia; South Africa; Spain; Sweden; Switzerland; United Kingdom of Great Britain and Northern Ireland; United States of America. Experts from the European Commission (EC) also participated. The International Energy Agency (IEA) was also represented. Experts from the following non-governmental organizations took part in the session: Association for Emission Control by Catalyst (AECC); Engine Manufacturers Association (EMA); European Association of Automobile Suppliers (CLEPA); Foundation for the Automobile and Society (FIA Foundation); International Association for Natural Gas Vehicles (IANGV); International Motorcycle Manufacturers Association (IMMA); International Organization for Standardization (ISO) and International Organization of Motor Vehicle Manufacturers (OICA). Upon the special invitation of the Chairman, the experts from: European Association of Internal Combustion Engine Manufacturers (EUROMOT); European Federation for Transport and Environment (T&E); European Liquefied Petroleum Gas Association (AEGPL); European Garage Equipment Association (EGEA); Technical Committee of Petroleum Additive Manufacturers in Europe (ATC) and Transportation Technical Supervision (TDT).

II. ADOPTION OF THE AGENDA (Agenda item 1)

Documentation: ECE/TRANS/WP.29/GRPE/2009/9, Informal document No. GRPE-58-01

2. GRPE noted GRPE-58-01 regarding the organization of the GRPE working group meetings. GRPE endorsed the suggestion by the Chairman of the informal group on Environmentally Friendly Vehicles (EFV) to cancel the fifth informal meeting, scheduled for Friday afternoon, 12 June 2009. GRPE adopted the agenda ECE/TRANS/WP.29/GRPE/2009/9 and added a new item 2(e) regarding the alignment of the scopes of Regulations Nos. 49 and 83.

3. The informal documents distributed during the session are listed in Annex I to this report.

**III. REGULATION No. 49 (Emissions of C.I. and P.I. (NG and LPG) engines)
(Agenda item 2)**

A. Off-Cycle Emissions (OCE) (Agenda item 2(a))

Documentation: ECE/TRANS/WP.29/2009/55, ECE/TRANS/WP.29/2009/71 and ECE/TRANS/WP.29/2009/72

4. Recalling the consideration and adoption of the draft gtr on OCE (ECE/TRANS/WP.29/2009/71) and its report (ECE/TRANS/WP.29/2009/72) at the previous session, GRPE noted that both documents were listed on the agenda of the June 2009 sessions of WP.29 and AC.3. With regard to the text of the draft gtr ECE/TRANS/WP.29/2009/71, GRPE also noted the following editorial correction:

Page 19, at the end of paragraph 11., delete the note by the secretariat in brackets.

5. As agreed during its previous session, GRPE had a final review of ECE/TRANS/WP.29/2009/55 proposing to insert into Regulation No. 49 the adopted OCE requirements. GRPE noted that the document was also listed on the agenda of the June 2009 sessions of WP.29 and AC.3 and adopted it with the following editorial correction:

Page 6, paragraph 6(c)., correct to read "(c) all engine coolant temperature above 343 K (70 °C)".

B. Gtr No. 4 on the Worldwide harmonized Heavy Duty Certification (WHDC) procedure (Agenda item 2(b))

Documentation: ECE/TRANS/WP.29/GRPE/2009/10, ECE/TRANS/WP.29/GRPE/2009/11, ECE/TRANS/WP.29/GRPE/2009/12, Informal documents Nos. GRPE-58-10, GRPE-58-19 and GRPE-58-20

6. Recalling the mandate given by the Executive Committee (AC.3) of the 1998 Agreement (see report ECE/TRANS/WP.29/1068, para. 67), the Chairman of the informal group on WHDC reported on the progress of work made during its twenty-seventh and twenty-eighth informal meetings, held respectively in Budapest on 10-12 March 2009 and in Geneva prior to the GRPE session proper (GRPE-58-10). The Secretary of the WHDC informal group reported that the group had already largely resolved options 1 and 5 regarding the engine power as well as the particulate filter material and filter size (GRPE-58-19). He expressed his disappointment that no satisfying agreement could be found for option 2 with regard to the reference fuel. He added that the test results, necessary for the clarification of options 3 and 4 regarding the hot soak period and the cold start weighting factors, were not yet fully available. He expected that these results would be ready by the end of June 2009.

7. Concerning the possible alternatives for reference fuels, GRPE preferred not to amend the current provisions of the gtr, unless a single reference fuel could be agreed on. GRPE agreed that the WHDC informal group should soon resume consideration of options 3 and 4 (hot soak period and the cold start weighting factors) in order to reach an agreement on these options. With regard to ECE/TRANS/WP.29/GRPE/2009/10 (draft Amendment 1 to gtr No. 4) and

ECE/TRANS/WP.29/GRPE/2009/11 (final report), GRPE agreed on a number of editorial corrections and updated formulae for the calculation of hydrocarbons, methane and non-methane hydrocarbons (GRPE-58-20). The Secretary of the WHDC informal group was invited to forward in due time to the UNECE secretariat updated documents for submission to WP.29 and AC.3 at their November 2009 sessions.

8. GRPE noted that, after conclusion of the tasks by the end of July 2009, no further meetings of WHDC would be necessary and acknowledged the huge and important work done by the informal group.

9. The expert from EC introduced ECE/TRANS/WP.29/GRPE/2009/12, proposing to align the text of Regulation No. 49 with that of the above-mentioned draft Amendment 1 to gtr No. 4. He was invited to submit to the secretariat, in due time, an updated version of his proposal for submission to WP.29 and AC.1 at their November 2009 sessions, taking into account the final considerations of the WHDC informal group.

C. Gtr No. 5 on Worldwide harmonized Heavy duty On-Board Diagnostics (WWH-OBD) (Agenda item 2(c))

Documentation: ECE/TRANS/WP.29/GRPE/2009/13

10. The expert from Japan introduced ECE/TRANS/WP.29/GRPE/2009/13 proposing a number of editorial corrections to gtr No. 5 on WWH-OBD. GRPE adopted the document and requested the secretariat to submit it, on behalf of the technical sponsor (United States of America), to WP.29 and AC.3, for consideration at their November 2009 sessions, as Corrigendum 1 to gtr No. 5.

D. Amendments to heavy duty OBD systems (Agenda item 2(d))

Documentation: ECE/TRANS/WP.29/GRPE/2009/14, Informal documents Nos. GRPE-58-13 and GRPE-58-21

11. On behalf of the informal group on Gaseous-Fuelled Vehicles (GFV), the expert from the Netherlands reported on the progress made by the GFV taskforce "OBD for gaseous-fuelled engines" (GRPE-58-21). In this respect, he introduced ECE/TRANS/WP.29/GRPE/2009/14 proposing to include into Annex 9B of Regulation No. 49 new requirements for gaseous-fuelled engines and to insert a new Annex 9C, specifying provisions for in-use performance data of OBD systems for diesel engines. The expert from EC suggested adding some clarifications with regard to the selection of malfunctions to be tested (GRPE-58-13).

12. GRPE agreed with the suggestions of the GFV informal group task force (GRPE-58-21) and adopted ECE/TRANS/WP.29/GRPE/2009/14, as amended by Annex III to this report. The secretariat was requested to submit the proposal to WP.29 and AC.1, for consideration at their November 2009 sessions, as draft Supplement 1 to the 05 series of amendments to Regulation No. 49.

E. Alignment of the scopes of Regulations Nos. 49 and 83 (Agenda item 2(e))

Documentation: ECE/TRANS/WP.29/2009/75, Informal document No. GRPE-58-07

13. GRPE agreed to consider this subject together with agenda item 6(c) (see para. 36 below) concerning the introduction of the Euro 5/6 requirements into Regulation No. 83.

IV. PARTICLE MEASUREMENT PROGRAMME (PMP) (Agenda item 3)

Documentation: Informal document No. GRPE-58-17

14. The Chairman of the PMP informal group reported that the validation exercise and Round Robin tests were still ongoing. He expected that tests would be completed in October 2009 and he announced his intention to start a test programme on the calibration of volatile particulates in August 2009. The PMP Chairman also suggested organizing further informal meetings in October and December 2009 to discuss the validation exercise and to prepare proposals for amendments to Regulation No. 49, to be considered by GRPE at its next session in January 2010 on the basis of informal documents.

15. The expert from OICA presented the results of the particle numbering Round Robin test (GRPE-58-17). He recommended to further improve the particle numbering measurement equipment, as well as the calibration procedure. He also mentioned that he would carry out a full error analysis study to further reduce the measurement variability by laboratories.

16. Upon the request of the PMP Chairman, GRPE agreed that PMP should also meet prior to the next session of GRPE (para. 54 below) in January 2010.

V. GTR No. 2 ON THE WORLDWIDE HARMONIZED MOTORCYCLE EMISSION TEST CYCLE (WMTC) (Agenda item 4)

Documentation: ECE/TRANS/WP.29/2009/73, ECE/TRANS/WP.29/2009/74, ECE/TRANS/WP.29/GRPE/2009/4, ECE/TRANS/WP.29/GRPE/2009/15, Informal documents Nos. GRPE-58-14, GRPE-58-15 and GRPE-58-16

17. GRPE noted that both Corrigenda to gtr No. 2 and to its Amendment 1 (ECE/TRANS/WP.29/2009/73 and ECE/TRANS/WP.29/2009/74) were listed on the agenda of the June 2009 sessions of WP.29 and AC.3. The Chairman of the informal group on WMTC reported that during the WMTC meeting, held in Geneva prior to the GRPE session proper, the informal group had made good progress and concluded its tasks on the development of a proposal to insert performance requirements into gtr No. 2. He introduced a time schedule (GRPE-58-14) to finalize the official document and the corresponding report. Upon the proposal of the WMTC informal group, GRPE agreed to remove the WMTC-gear selection sheets from the website. It was agreed to replace them by an updated version, which will be made available, in September 2009, in the Global Registry at the following website address of gtr No. 2: <http://www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29registry/gtr2.html>.

18. As technical sponsor of the WMTC gtr, the expert from Germany introduced ECE/TRANS/WP.29/GRPE/2009/15 proposing to insert into gtr No. 2 the performance requirements. He added that the limit values could be introduced in Table 5-1, once the Euro 4 emission requirements were approved. The expert from Japan preferred to replace the note after Table 5-1 by a neutral sentence (GRPE-58-16).

19. GRPE adopted ECE/TRANS/WP.29/GRPE/2009/15, as amended below, and requested the secretariat to submit it as draft Amendment 2 to gtr No. 2 to AC.3, for consideration at a further session, subject to the decision of WP.29 at its June 2009 session.

Page 3, paragraph 5.2., Table 5-1, correct the note to read:

"Note: The figures in this table **should be introduced when they are approved as appropriate among the Contracting Parties to the 1998 Agreement with sufficient technical consideration."**

20. GRPE adopted the corresponding technical report ECE/TRANS/WP.29/GRPE/2009/4, as amended by Annex IV, and requested the secretariat to submit it to AC.3, together with draft Amendment 2 to gtr No. 2.

21. GRPE noted that no further meetings of the informal group on WMTC were necessary and acknowledged the good work done by that group.

VI. EXHAUST EMISSION TEST PROTOCOL FOR NON-ROAD MOBILE MACHINERY (NRMM) (Agenda item 5)

Documentation: ECE/TRANS/WP.29/GRPE/2009/16, ECE/TRANS/WP.29/GRPE/2009/17, Informal documents Nos. GRPE-58-04, GRPE-58-11-Rev.1, GRPE-58-12 and GRPE-58-23

22. On behalf of the Chairman of the informal group on NRMM, the expert from EC reported that, during its meeting prior to the session of GRPE, the group had finalized the draft gtr on NRMM and concluded its tasks (GRPE-58-23). He introduced GRPE-58-11 and GRPE-58-12 proposing a number of amendments and editorial corrections to the draft gtr on NRMM (ECE/TRANS/WP.29/GRPE/2009/16). He added that the draft gtr had been aligned with the updated equations to gtr No. 4 on WHDC. He also presented the final report on the development of the gtr (ECE/TRANS/WP.29/GRPE/2009/17) as well as the draft guidance document (GRPE-58-04), in which additional explanations and useful background information for the users of the gtr were included.

23. GRPE adopted ECE/TRANS/WP.29/GRPE/2009/16, as amended by GRPE-58-11-Rev.1 and GRPE-58-12, as well as the corresponding final report ECE/TRANS/WP.29/GRPE/2009/17. The secretariat was requested to submit both documents to WP.29 and AC.3, for consideration at their November 2009 sessions.

24. With regard to the guidance document, GRPE noted the request to translate GRPE-58-04 also into French and Russian. GRPE adopted the proposed text as reproduced in

ECE/TRANS/WP.29/2009/120 and agreed to submit it, together with draft gtr on NRMM and the technical report, to WP.29 and AC.3.

25. GRPE noted that no further meetings of the informal group on NRMM were necessary and acknowledged the good work done by that group. In the view of the further amendments to gtr No. 4 on WHDC (see paragraph 7. above), the expert from EC volunteered to provide the secretariat in due time with three updated documents adopted by GRPE.

VII. AMENDMENTS TO UNECE REGULATIONS (Agenda item 6)

A. Worldwide harmonized Light vehicle Test Procedures (WLTP) (Agenda item 6(a))

Documentation: Informal document No. GRPE-58-18

26. The Chairman of the WLTP informal group recalled the political urgency to develop new test cycles for light vehicles with regard to emissions of pollutants and CO₂, as expressed by ministers at the first International Transport Forum (ITF) in Leipzig in May 2008, by the International Energy Agency (IEA) Conference in Paris in September 2008, the Ministerial Conference on Global Environment and Energy in Transport (MEET) in Tokyo in January 2009 and, recently, at the high-level segment on climate change mitigation and adaptation during the sixty-third session of UNECE, held in Geneva on 31 March 2009.

27. The Secretary of WLTP informal group reported on the good progress made by the group at its third meeting, held prior to the GRPE session proper (GRPE-58-18). He presented the proposed WLTP road map (WLTP-03-03). He informed GRPE that the WLTP informal group had proposed to proceed in 3 subsequent phases and to set up 5 sub-groups in order to proceed in parallel with the development of the different test procedures. It has also been agreed to remove from the WLTP road map the development of OBD requirements for light vehicles and to mandate a specific group with this work under a separate gtr. GRPE also noted the proposed time schedule (WLTP-03-04) and the estimated budget (WLTP-03-05) for the development of the draft gtr on WLTP.

28. The Secretary of WLTP informal group also reported on the concerns expressed by the expert from the United States of America (WLTP-03-07) about the ambitious goal of that road map in the view of the current constraints for resources, the different national policies with regard to fuel efficiency measures and, in this respect, the potential risk to fail in the completion of the development (Phase 1) of the gtr on WLTP in 2014. The delegates from Canada and Japan supported some concerns expressed by the delegate from the United States of America.

29. GRPE noted that a possible solution for a consensus on the gtr priorities could be to remove from Phase I of the WLTP road map the development of test procedures for Off-Cycle Emissions (OCE) and mobile air conditioning (MAC). In that case, Contracting Parties were nevertheless encouraged to continue their work, at a national or regional level, on the development of such MAC/OCE procedures and to exchange their experiences with other interested Contracting Parties for possible use in national/regional legislation and to possibly ease, at a later time point, the insertion of such procedures into the WLTP gtr. The expert from

OICA preferred to keep MAC in Phase I, as some Contracting Parties had already started legislative activities on this issue. GRPE agreed to wait for the final decision on the extent of the road map for the WLTP gtr with WP.29 and AC.3. GRPE agreed to take the decision on the durability, the in-use compliance and evaporative emissions at a later stage.

30. The GRPE Chairman announced his intention to present the road map to WP.29 and AC.3 during their June 2009 sessions and to request guidance from WP.29 and AC.3 on the extent of the WLTP gtr as well as their consent to set up the WLTP sub-groups.

31. With regard to the chairmanship of the potential WLTP sub-groups, GRPE noted for the sub-group on the Development of the Harmonized driving Cycle (DHC) the candidatures of India, Japan, the United Kingdom and the United States of America. Following the discussion, the expert from the United States of America offered, while preferring to chair the DHC sub-group, to co-chair together with India the sub-group on the Development of the Test Procedure (DTP). He also offered to co-chair together with the European Commission the Drafting sub-group, subject to the final decision by AC.3 at their sessions in June and/or November 2009.

32. GRPE recommended that the WLTP informal group should start, as soon as possible, the development of the test cycles and agreed that the group should also meet prior to the next session of GRPE (para. 54 below). It was recalled that the technical sponsors (once identified) should submit to AC.3, at its November 2009 session, the formal proposal to develop the gtr.

B. Gaseous-Fuelled Vehicles (GFV) (Agenda item 6(b))

Documentation: Informal document No. GRPE-58-22

33. The Chairman of the informal group on Gaseous-Fuelled Vehicles (GFV) reported on the good work progress (GRPE-58-22) made by the GFV group at its meetings, held in Brussels in March and May 2009, and in Geneva prior to the GRPE session proper (see Annex II to this report).

34. He recalled that some results of the GFV group were already reflected in ECE/TRANS/WP.29/GRPE/2009/14 (item 2(d)) and ECE/TRANS/WP.29/GRPE/2009/19 (item 6(f)). He informed GRPE that the informal group would resume consideration of the results of test programmes and new provisions for methane and non-methane hydrocarbon (NMHC). In this respect, he announced the intention of his group to prepare draft amendments to Regulation No. 115, for consideration by GRPE at its January 2010 session.

35. GRPE noted that the next meeting of the GFV working group would take place in Brussels, on 28 September 2009. GRPE agreed that the GFV group should also meet prior to the next session of GRPE (para. 54 below).

C. Regulation No. 83 (Emissions of M₁ and N₁ categories of vehicles) (Agenda item 6(c))

Documentation: ECE/TRANS/WP.29/2009/56, ECE/TRANS/WP.29/2009/57, ECE/TRANS/WP.29/GRPE/2009/8, Informal document No. GRPE-58-08

36. Recalling the discussion during its previous session regarding the introduction of the Euro 5 requirements into the UNECE Regulations, GRPE noted that ECE/TRANS/WP.29/2009/56, ECE/TRANS/WP.29/2009/57, ECE/TRANS/WP.29/2009/75 and ECE/TRANS/WP.29/2009/76 were listed on the agenda of the June 2009 session of WP.29. However, the expert from OICA informed GRPE that a number of concerns had been identified (GRPE-58-08). He added that the expert from EC had already volunteered to organize an expert meeting in Brussels to clarify these issues.

37. In the absence of the experts from EC, GRPE agreed to recommend to WP.29 to defer consideration and adoption of the above-mentioned documents to the November 2009 sessions of WP.29 and AC.1.

38. GRPE agreed to also defer consideration of ECE/TRANS/WP.29/GRPE/2009/8 regarding updated specifications for the Flame Ionisation Detector (FID) hydrocarbon analyser to its next session in January 2010.

D. Regulation No. 85 (Measurement of net power) (Agenda item 6(d))

39. GRPE noted that no new information was given under this agenda item and agreed to remove it from the agenda of the next session.

E. Regulation No. 101 (CO₂ emissions/fuel consumption) (Agenda item 6(e))

Documentation: ECE/TRANS/WP.29/2009/76, ECE/TRANS/WP.29/GRPE/2009/18, Informal document No. GRPE-58-09

40. Regarding ECE/TRANS/WP.29/2009/76, GRPE recalled its decision under agenda item 6(c). The expert from Germany introduced ECE/TRANS/WP.29/GRPE/2009/18 to align the provisions of Regulation No. 101 with those of Regulation No. 83 with regard to the emission test procedure for a vehicle equipped with a periodically regenerating system (ECE/TRANS/WP.29/2009/56).

41. GRPE adopted ECE/TRANS/WP.29/GRPE/2009/18 and requested the secretariat to submit the proposal to WP.29 and AC.1, for consideration at their November 2009 sessions, as draft Supplement 1 to the 01 series of amendments to Regulation No. 101.

F. Regulation No. 115 (Specific LPG and CNG retrofit systems) (Agenda item 6(f))

Documentation: ECE/TRANS/WP.29/GRPE/2009/19, Informal document No. GRPE-58-22

42. On behalf of the GFV informal group (GRPE-58-22), the expert from the Netherlands introduced ECE/TRANS/WP.29/GRPE/2009/19 aiming at clarifying the provisions of Regulation No. 115 with regard to the definitions of retrofit systems as well as at correcting some errors.

43. GRPE adopted ECE/TRANS/WP.29/GRPE/2009/19, as amended below, and requested the secretariat to submit it to WP.29 and AC.1, for consideration at their November 2009 sessions, as draft Supplement 4 to Regulation No. 115.

Page 8, footnote 4/, correct "56 (vacant)" to read "57 (vacant)".

VIII. HYDROGEN AND FUEL CELL VEHICLES – SUB-GROUP ENVIRONMENT (HFCV-SGE) (Agenda item 7)

44. The HFCV Project Manager informed GRPE about the current status of the work made by the sub-group environment and its plan on how to go forward. He reported on the results of sub-group's meeting, held prior to the GRPE session proper (see Annex II to this report). He announced the intention of the sub-group to hold a further meeting in October 2009 in order to finalize the technical reports. He added that the sub-group on safety (HFCV-SGS) had made good progress during its meetings in Budapest on 19-21 January 2009 and in Beijing, on 26-29 May 2009. In this respect, he announced his intention to report in detail to WP.29, at its June 2009 session.

45. GRPE agreed that the HFCV-SGE informal group should also meet prior to the next session of GRPE in January 2010 (para. 54 below).

IX. ENVIRONMENTALLY FRIENDLY VEHICLES (EFV) (Agenda item 8)

Documentation: Informal documents Nos. GRPE-58-02, GRPE-58-03, GRPE-58-05 and GRPE-58-06

46. The Chairman of the EFV informal group presented the updated background document (GRPE-58-02) regarding the feasibility statement for the development of a methodology to evaluate EFV. He added that the document was based, as agreed by GRPE, on the so-called SWOT methodology (Strength, Weakness, Opportunity and Threat). He stated that, from a procedural point of view, the development of a harmonized EFV concept was feasible and that such a document could be adopted as a Special Resolution or Consolidated Recommendation under the umbrella of the 1998 or 1958 Agreement. He concluded that, for a further step, a clear political statement and guidance from WP.29 and the EFV Conference were needed.

47. The expert from IEA introduced GRPE-58-06 underlining the importance of EFV and the need to improve the energy efficiency in the transport sector. The expert from OICA

underlined that a single and unique evaluation method would be impossible to develop, due to the fact that environmental indicators were generally based on the regional or temporal situations which would result in different sets of weighing factors (GRPE-58-05). He requested that the Working Party on Noise (GRB) should also be involved in the development of such an evaluation methodology. GRPE noted that GRB had inserted a new item on EFV on the agenda of its forthcoming session in September 2009.

48. The EFV Chairman announced his intention to present to WP.29, at its June 2009 session, a summary on the feasibility statement (GRPE-58-03). He added that the fifth meeting of the EFV group would eventually be organized in conjunction with the forthcoming fourth EFV Conference, scheduled to be held in November 2009 in New Delhi (India).

49. The GRPE Chairman welcomed the good work done by the EFV informal group and suggested that the EFV informal group should also meet in conjunction with the next GRPE session in January 2010 (para. 54 below).

X. FUEL QUALITY (FQ) (Agenda item 9)

50. Referring to the declaration given at the Ministerial conference on global Environment and Energy in Transport (MEET), held in Tokyo on 15-16 January 2009, and to the outcome of the recent UNECE high-level segment on climate change mitigation and adaptation (E/ECE/1450, para. 28), the Chairman of the FQ informal group underlined the political pressure on WP.29 to make progress in the development of recommendations for market fuel quality. He reported that only little progress was made by the FQ informal group during its fourth meeting held prior to the GRPE session proper. He informed GRPE that the FQ experts had considered a first proposal, tabled by OICA, to define the limit values for a number of fuel quality parameters. He added that, in the absence of International Petroleum Industry Environment Conservation Association (IPIECA), the informal group had decided to resume consideration of the proposal at the next FQ meeting scheduled to be held on 12 January 2010, awaiting the comments by IPIECA.

XI. EXCHANGE OF INFORMATION ON NATIONAL AND INTERNATIONAL REQUIREMENTS ON EMISSIONS (Agenda item 10)

51. GRPE noted that no information had been given under this agenda item.

XII. ELECTION OF OFFICERS (Agenda item 11)

52. In compliance with Rule 37 of the Rules of Procedure (TRANS/WP.29/690 and Amend.1), GRPE called the election of officers on Friday morning. Mr. B. Gauvin (France) was unanimously re-elected Chairman of GRPE for the sessions scheduled for the year 2010.

XIII. OTHER BUSINESS (Agenda item 12)

53. GRPE noted that no information had been given under this agenda item.

XIV. PROVISIONAL AGENDA FOR THE NEXT SESSION

54. For its fifty-ninth session to be held in Geneva, Palais des Nations, GRPE decided to start on Monday, 11 January 2010, at 10.00 a.m. until Friday, 15 January 2010, 5.30 p.m., subject to confirmation by the secretariat (see GRPE-59-01). For that purpose, the following time schedule and provisional agenda was suggested:

A. INFORMAL MEETINGS IN CONJUNCTION WITH THE GRPE SESSION PROPER

1. Informal meeting of the GRPE working group on Particle Measurement Programme (PMP)

To be held on Monday morning, 11 January 2010, from 10.00 a.m. till 12.30 p.m. The agenda of the meeting will be prepared by the PMP secretariat and distributed to the members of the group prior to the meeting. This meeting will be held without interpretation.

2. Informal meeting of the GRPE working group on Hydrogen and Fuel Cell Vehicles – Sub-group Environment (HFCV-SGE)

To be held on Monday afternoon, 11 January 2010, from 2.30 p.m. till 5.30 p.m. The agenda of the meeting will be prepared by the HFCV-SGE secretariat and distributed to the members of the group prior to the meeting. This meeting will be held without interpretation.

3. Informal meeting of the GRPE working group on Gaseous-Fuelled Vehicles (GFV)

To be held on Tuesday morning, 12 January 2010, from 9.30 a.m. till 12.30 p.m. The agenda of the meeting will be prepared by the GFV secretariat and distributed to the members of the group prior to the meeting. This meeting will be held without interpretation.

4. Informal meeting of the GRPE working group on the Fuel Quality (FQ)

To be held on Tuesday afternoon, 12 January 2010, from 2.30 p.m. till 5.30 p.m. The agenda of the meeting will be prepared by the FQ secretariat and distributed to the members of the group prior to the meeting.

5. Informal meeting of the GRPE working group on the Worldwide harmonized Light vehicle Test Procedures (WLTP)

To be held on Wednesday (whole day), 13 January 2010, from 9.30 a.m. till 5.30 p.m. The agenda of the meeting will be prepared by the WLTP secretariat and distributed to the members of the group prior to the meeting.

6. Informal meeting of the GRPE working group on Environmentally Friendly Vehicles (EFV)

To be held on Friday afternoon, 15 January 2010, from 2.30 p.m. till 5.30 p.m. The agenda of the meeting will be prepared by the EFV secretariat and distributed to the members of the group prior to the meeting. This meeting will be held without interpretation.

B. PROVISIONAL AGENDA FOR THE FIFTY-NINTH SESSION OF GRPE PROPER

55. To be held on Thursday, 14 January 2010, from 9.30 a.m. to Friday, 15 January 2010, until 12.30 p.m.:

- I. Regulation No. 49 (Emissions of C.I. and P.I. (NG and LPG) engines):
 - (a) Off-Cycle Emissions (OCE);
 - (b) Gtr No. 4 on Worldwide harmonized Heavy Duty Certification procedure (WHDC);
 - (c) Amendments to heavy duty OBD systems;
 - (d) Alignment of the scopes of Regulations Nos. 49 and 83.
- II. Particle Measurement Programme (PMP).
- III. Gtr No. 2 on the Worldwide harmonized Motorcycle emission Test Cycle (WMTC).
- IV. Exhaust emissions test protocol of Non-Road Mobile Machinery (NRMM).
- V. Amendments to other UNECE Regulations:
 - (a) Worldwide harmonized Light vehicles Test Procedures (WLTP);
 - (b) Gaseous-Fuelled Vehicles (GFV);
 - (c) Regulation No. 83 (Emissions of M₁ and N₁ categories of vehicles);
 - (d) Regulation No. 101 (CO₂ emissions and fuel consumption);
 - (e) Regulation No. 115 (Specific LPG and CNG retrofit systems);
- VI. Hydrogen and Fuel Cell Vehicles – Sub-Group Environment (HFCV-SGE).
- VII. Environmentally Friendly Vehicles (EFV).
- VIII. Fuel Quality (FQ).
- IX. Exchange of information on national and international requirements on emissions.
- X. Other business.

Annex I

LIST OF INFORMAL DOCUMENTS (GRPE-58-...)
DISTRIBUTED WITHOUT AN OFFICIAL SYMBOL DURING THE SESSION

No.	Transmitted by	Agenda item	Language	Title	Follow-up
01	Secretariat	-	E	Informal group meetings scheduled to be held in conjunction with the 58th GRPE session proper (including the room reservations)	(a)
02	EFV	8	E	Background document regarding the feasibility statement for the development of a methodology to evaluate Environmentally Friendly Vehicles (EFV)	(a)
03	EFV	8	E	Feasibility statement for the development of a methodology to evaluate Environmentally Friendly Vehicles (EFV)	(b)
04	EC	5	E	Guidance document supporting the NRMM global technical regulation	(b)
05	OICA	8	E	Response to documents EFV-04-11 and GRPE-58-02 (Environmentally Friendly Vehicles (EFV))	(a)
06	IEA	8	E	The IEA's comment on Environmentally Friendly Vehicles (EFV)	(a)
07	OICA	2(d)	E	Response to document ECE/TRANS/WP.29/2009/75 (transposition of Euro 5/6 requirements into R.49-06)	(a)
08	OICA	6(c)	E	Response to document ECE/TRANS/WP.29/2009/57 (transposition of Euro 5/6 requirements into R.83-06)	(a)
09	OICA	6(e)	E	Response to document ECE/TRANS/WP.29/2009/76 (transposition of Euro 5/6 requirements into R.101-01)	(b)
10	WHDC	2(b)	E	Progress report on global technical regulation (gtr) No. 4 (WHDC)	(a)
11- Rev.1	EC	5	E	Corrigenda to working document ECE/TRANS/WP.29/GRPE/2009/16 (draft gtr on NRMM)	(a)

No.	Transmitted by	Agenda item	Language	Title	Follow-up
12	EC	5	E	Amendments to ECE/TRANS/WP.29/GRPE/2009/16 (rationale for draft gtr on NRMM)	(a)
13	EC	2(d)	E	Proposal for draft amendments to Regulation No. 49 – Rev.4	(a)
14	WMTC	4	E	WMTC – draft time schedule (after informal group meeting on 8 June 2009)	(a)
15	Korea	4	E	Amendments to ECE/TRANS/WP.29/GRPE/2009/4 (report on WMTC)	(a)
16	Japan	4	E	Proposal of amendments to document ECE/TRANS/WP.29/GRPE/2009/15	(a)
17	OICA	3	E	OICA PN Round Robin Test	(a)
18	WLTP	6(a)	E	Summary of the 3rd informal group meeting on WLTP	(b)
19	WHDC	2(b)	E	Worldwide harmonized Heavy Duty emissions Certification procedure (WHDC)	(a)
20	WHDC	2(d)	E	Amendments to document ECE/TRANS/WP.29/GRPE/2009/10 (WHDC)	(a)
21	GFV	2(d)	E	UNECE GFV informal group task force "OBD for gas fuelled engines" – Status report	(a)
22	GFV	6(b)	E	Informal group on Gaseous Fuelled Vehicles (GFV)	(a)
23	EC	5	E	Non Road Mobile Machinery engines: global technical regulation for approval by GRPE	(b)

Notes:

- (a) Consideration completed or to be superseded
- (b) Adopted and submitted to WP.29

Annex II

INFORMAL MEETINGS HELD IN CONJUNCTION WITH
THE FIFTY-EIGHTH SESSION OF GRPE

1. Following the agreement reached at the previous GRPE session, eight informal meetings were held in conjunction with the fifty-eighth session of the GRPE.
2. The fourth informal meeting of the GRPE working group on Hydrogen and Fuel Cell Vehicles – Sub-Group Environment (HFCV-SGE) was held on 8 June 2009, from 10.00 a.m. till 12.30 p.m. under the Chairmanship of Mr. A. Perujo (EC-JRC). A summary of the proceedings of this informal meeting is given in the report above (paras. 44-45).
3. The eleventh informal meeting of the GRPE working group on Worldwide harmonized Motorcycle emission Test Cycle (WMTC) was held on 8 June 2009, under the Chairmanship of Mr. C. Albus (Germany). A summary of the proceedings of this informal meeting is given in the report above (paras. 17-21).
4. The seventh informal meeting of the GRPE working group on Gaseous-Fuelled Vehicles (GFV) was held on 9 June 2009 (morning only) under the Chairmanship of Mr. A. Rijnders (Netherlands). A summary of the proceedings of this informal meeting is given in the report above (paras. 33-35).
5. The twenty-eighth informal meeting of the GRPE working group on the Worldwide harmonized Heavy Duty Certification (WHDC) procedure was held on 9 June 2009 (afternoon only) under the Chairmanship of Mr. J.P. Laguna (EC). A summary of the proceedings of this informal meeting is given in the report above (paras. 6-9).
6. The fourth informal meeting of the GRPE working group on Fuel Quality (FQ) was held on 9 June 2009 (afternoon only) under the Chairmanship of Mr. B. Gauvin (France). A summary of the proceedings of this informal meeting is given in the report above (para. 50).
7. The twenty-first informal meeting of the GRPE working group on the emissions from Non-Road Mobile Machinery (NRMM) was held on 10 June 2009 (morning only) under the Chairmanship of Mr. R. Hummel (EC/JRC). A summary of the proceedings of this informal meeting is given in the report above (paras. 22-25).
8. The third informal meeting of the GRPE working group on Worldwide harmonized Light vehicles Test Procedures (WLTP) was held on 10 June 2009 (whole day) under the Chairmanship of Mr. B. Gauvin (France). A summary of the proceedings of this informal meeting is given in the report above (paras. 26-32).
9. The fifth informal meeting of the GRPE working group on Environmentally Friendly Vehicles (EFV) was postponed to November 2009. An outlook of the proceedings of this informal meeting is given in the report above (paras. 46-49).

Annex III

ADOPTED AMENDMENTS TO ECE/TRANS/WP.29/GRPE/2009/14
(Regulation No. 49, see paragraph 12 of this report)

Page 2, before Annex 9B, insert an amendment to the table of contents, to read:

"CONTENTS

.....

ANNEXES

.....

Annex 9B - **Technical requirements for on-board diagnostic systems (OBD)**

Appendix 1 - Approval"

.....

Appendix 7 - Documentation regarding OBD related information

Annex 9C - **Technical requirements for on-board diagnostic systems (OBD)**

Appendix 1 - Groups of monitors"

Page 2, Annex 9B, paragraph 1., amend to read (inserting a note for clarification):

"1. APPLICABILITY

This annex is applicable to diesel or gaseous-fuelled (NG or LPG) engines intended to be mounted in road vehicles, but is not applicable to dual-fuel or bi-fuelled engines.

Note: Annex 9B is applicable instead of Annex 9A upon decision of the Contracting Parties, provided that Annex 4B is also applied. Nevertheless, in the case a Contracting Party decides to apply this annex, some requirements of Annex 9A may still remain applicable at the explicit request of that Contracting Party, provided that these requirements are not in contradiction to the specifications of this annex."

Page 4, Annex 9B, insert an amendment to paragraph 6.3., to read:

"6.3. Procedures for demonstrating the OBD performance

The manufacturer shall"

In the following paragraphs the requirements for demonstrating the OBD performance are listed, including requirements for testing. **The number of tests shall be four times the number of engine families considered within the emission OBD family, but shall**

not be less than 8.

The monitors selected shall reflect the different types of monitors mentioned in paragraph 4.2. (i.e. emission threshold monitoring, performance monitoring, total functional failure monitoring, or component monitoring) in a well balanced manner. The monitors selected shall also reflect the different items listed in Appendix 3 of this annex in a well balanced manner."

Page 6, Annex 9B, Appendix 3, item 1, after the note delete the sentence in square brackets.

Page 7, Annex 9B, Appendix 3, item 3, insert a new subparagraph (d) to read:

"(d) SCR catalyst conversion efficiency: the catalyst's SCR ability to convert NOx emission threshold monitoring."

Annex IV

ADOPTED AMENDMENTS TO ECE/TRANS/WP.29/GRPE/2009/4
(Technical report on draft Amendment 2 to gtr No. 2, see paragraph 20 of this report)

Page 3, paragraph 2.5., amend to read:

"2.5. Korea

cycle	classification	stage (year/month)	CO g/km	HC g/km	NOx g/km	HC+NOx g/km
ECE R40	< 150 ccm	2006/1	5.5	1.2	0.3	-
ECE R40	> 150 ccm	2006/1	5.5	1.0	0.3	-
ECE R40 (cold)	< 150 ccm	2008/1	2.0	0.8	0.15	-
ECE R40 + EUDC	> 150 ccm	2008/1	2.0	0.3	0.15	-

"
