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World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Pollution and Energy (GRPE)

REPORT OF THE WORKING PARTY ON POLLUTION AND ENERGY (GRPE)
ON ITS FORTIETH SESSION
(22 - 26 May 2000)

ATTENDANCE

GRPE held its fortieth session $\underline{1}/$ from 22 May to 25 May 2000, 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): Austria, Belgium; Czech Republic; Denmark; France; Germany; Hungary; Italy; Japan; Netherlands; Norway; Poland; Romania; Russian Federation; Spain; Sweden; Switzerland; United Kingdom; United States of America. Experts from the European Commission (EC) also participated. A representative of the Republic of South Africa took part in the session under Rule 1(b) of the Rules of Procedure of WP.29 (TRANS/WP.29/690). Experts from the following non-governmental organizations also participated: International Organization for Standardization (ISO); International Touring Alliance/International Automobile Federation (AIT/FIA); International Organization of Motor Vehicle Manufacturers (OICA); International Motorcycle Manufacturers Association (IMMA); European Association of Automotive Suppliers (CLEPA); Automobile Emissions Control by Catalysts (AECC/CEFIC); European LPG Association (AEGPL); European Association of Internal Combustion Engine Manufactures (EUROMOT); The Oil Companies' European Organization for Environment, Health and Safety (CONCAWE); European Committee of Associations of Manufacturers of Agricultural Machinery (CEMA); Committee for European Construction Equipment (CECE).

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 $[\]underline{1}/$ Following the decisions taken by GRPE at its thirty-ninth session (TRANS/WP.29/GRPE/39, para. 82.), and endorsed by WP.29 (TRANS/WP.29/703, paras. 70 and 72)three informal meetings were held prior to the fortieth GRPE session proper.

^{2.} The informal meeting on particulate emissions was held on 22 May 2000, under the chairmanship of Mr. M. Dunne (United Kingdom). Experts from the following countries and organizations participated in the work: Austria;

Belgium, Czech Republic; Denmark; Finland; Germany; Hungary; Italy; Japan; Netherlands; Norway; Poland; Russian Federation; South Africa; Spain; Sweden; Switzerland; United Kingdom; United States of America; European Community (EC); International Organization for Standardization (ISO); International Organization of Motor Vehicle Manufacturers (OICA); Automobile Emissions Control by Catalysts (AECC/CEFIC); European Association of Internal Combustion Engine Manufactures (EUROMOT); The Oil Companies' European Organization for Environment, Health and Safety (CONCAWE); European Garage Equipment Association (EGEA); European Environmental Bureau (EEB). A summary of the proceedings of this informal meeting is given below (paras. 54 to 60).

- 3. The ninth informal meeting of the GRPE working group on the world-wide heavy-duty certification procedure (WHDC) was held on 23 May 2000 (morning only), under the chairmanship of Mr. C. Havenith (Netherlands). Experts from the following countries and organizations participated in the work: Austria; Belgium; Czech Republic; Denmark; Finland; Germany; Hungary; Italy; Japan; Netherlands; Norway; Poland; Russian Federation; South Africa; Spain; Sweden; Switzerland; United Kingdom; United States of America; European Community (EC); International Organization of Motor Vehicle Manufacturers (OICA); Automobile Emissions Control by Catalysts (AECC/CEFIC); The Oil Companies' European Organization for Environment, Health and Safety (CONCAWE). A summary of the proceedings of this informal meeting is given below (paras. 5 to 13).
- 4. The first informal meeting of the GRPE working group on the world-wide motorcycle emission test cycle (WMTC) was held on 23 May 2000 (afternoon only), under the chairmanship of Mr. C. Havenith (Netherlands). Experts from the following countries and organizations participated in the work: Austria; Belgium; Czech Republic; Denmark; Finland; Germany; Hungary; Italy; Japan; Netherlands; Norway; Poland; Russian Federation; South Africa; Spain; Sweden; Switzerland; United Kingdom; United States of America; European Community (EC); International Organization for Standardization (ISO); International Touring Alliance/International Automobile Federation (AIT/FIA); International Motorcycle Manufacturers Association (IMMA); International Organization of Motor Vehicle Manufacturers (OICA); Automobile Emissions Control by Catalysts (AECC/CEFIC). A summary of the proceedings of this informal meeting is given below (paras. 67 to 73)

REGULATION No. 49 (Emissions of C.I., NG and P.I. (LPG) engines)

(a) Development of the emission testing procedure

5. The Chairman of the WHDC group informed GRPE that the minutes of the eighth WHDC meeting (Geneva, 12 January 2000) had been approved by the WHDC group. After that he reported orally on the results of the ninth meeting of WHDC held on 23 May 2000.

- 6. He informed GRPE that a research carried out by TÜV (Germany) and TNO (Netherlands) had identified a candidate for a world transient cycle which should represent real-life heavy-duty vehicle engine operation. He illustrated the main contents of the study and informed GRPE that a final report would be discussed during the next WHDC session scheduled in October 2000 and transmitted to the next GRPE session. He said that a validation phase had been carried out on the basis of the available engine data, in order to identify deviation of the regional cycles (EU, Japan and USA) from the world-wide cycle in terms of emission of the regulated pollutants. He added that WHDC would also look at cycle by-pass prevention before completing its work.
- 7. He also mentioned the good cooperation with the Japanese research institute (JARI) and informed GRPE that the authorities from the United States of America would have the opportunity to receive detailed information about WHDC progress during a workshop to be held in Detroit (USA) in July 2000. In this respect he wished the United States of America to become a full member of WHDC.
- 8. The expert from OICA briefly recalled progress made in the "ISO Activities" by ISO TC22/SC5/WG (exhaust emissions measurements) and ISO TC22/SC5/WG9 (engine family) groups. In particular, he informed GRPE that a draft standard ISO 16183 concerning measurement procedure had been discussed and was expected to be adopted by June 2001. He also said that standard ISO 16185 defining engine family concept would be published soon.
- 9. The expert from the United States of America wished an increasing cooperation of her administration with WHDC and expressed optimism for the future developments in the framework of the Global Agreement. She also proposed that GRPE should receive from WP.29 a mandate to study the matter.
- 10. The expert from Japan recalled positive results achieved during a meeting held in his country by the technical committee. However, he expressed some concerns about differences between the Japanese test cycle and the proposed world-wide cycle resulting from the validation phase, which would require the Japanese cycle to be amended in the future.
- 11. The expert from the European Commission also welcomed the proposal for establishing a world-wide cycle under the 1998 Global Agreement. He also said that the Commission would consider for the future the opportunity to introduce the new test cycle by amending EC Directive 1999/96/EC.
- 12. GRPE fully supported the work done by WHDC and acknowledged the importance of the research and the analytical work carried out by the group even though it slightly delayed the completion of the study of the results. GRPE envisaged that final results of the study would be presented at the next session.
- 13. GRPE noted the progress report of the WHDC group and agreed that the next meeting of this group should be held on 16 January 2001, the first day of the forty-first GRPE session (see para. 82 below).
- (b) <u>Alignment of Regulation No. 49 to the corresponding draft EC Directive</u>

 Documentation: Informal documents Nos. 8 and 14 of the annex to this report.

- 14. The expert from the United Kingdom presented a proposal (informal document No. 8) to amend Regulation No. 49, in order to bring its text in line with the prescriptions of EC Directive 1999/96/EC. He said that the proposal would introduce:
- progressively more demanding emission limits;
- a new steady state test for conventional diesels and those diesel engines fitted with oxidation catalysts;
- a load related smoke test for all diesel engines;
- a new transient cycle for diesel engines fitted with advance pollution control systems and for gas-fuelled engines;
- permissive limits applicable to vehicles defined as "Enhanced Environmentally-Friendly Vehicles" (EEVs);
- a concept of the Engine Family to allow the approval of a number of closely related engines by the approval of a single Parent Engine;
- more precise procedures to follow to check production conformity.

He complemented his proposal with transitional provisions (informal document No. 14)

- 15. The expert from the European Commission informed GRPE that further amendments to the Directive 1999/96/EC had recently been proposed by the Commission and should be adopted by the EC Committee for Adaptation to Technical Progress scheduled for the 13 October 2000.
- 16. GRPE adopted the proposal and agreed that it should be submitted to WP.29 and to the Administrative Committee AC.1 for consideration at its sixteenth session (November 2000) as a proposal for draft 03 series of amendments to Regulation No. 49. GRPE also agreed that further amendments would be introduced to the text of the Regulation after their adoption by the European Union (see para. 15 above).

REGULATION NO. 83 (Emissions of M1 and N1 categories of vehicles)

<u>Documentation</u>: TRANS/WP.29/GRPE/2000/10, TRANS/WP.29/GRPE/2000/13; informal documents Nos. 1, 2, 3, 4 and 9 of the annex to this report.

- 17. The expert from OICA presented a proposal to amend the scope of Regulation No. 83, 04 series of amendments (informal document No. 4) in order to bring its text in line with the corresponding EC Directive 96/44/EC.
- 18. GRPE adopted the above proposal and agreed that it should be submitted to WP.29 and to the Administrative Committee AC.1 for consideration at its sixteenth session (November 2000) as a corrigendum to the 04 series of amendments to Regulation No. 83.
- 19. GRPE was informed by the expert from Switzerland on the results of an investigation carried out on some particulate trap systems for diesel engines, as available in the market (informal document No. 1). In addition, certification tests were made in order to assess the efficiency of the traps (informal document No. 2).

- 20. The Secretary informed GRPE that the text of the proposal for the draft 05 series of amendments to Regulation No. 83 (TRANS/WP.29/2000/41) had not been made available since several editorial corrections had been introduced in both English and French versions. However, he envisaged that the English and French versions of the document should become available via the Internet only prior to the one-hundred-and-twenty-first session of WP.29 in July 2000. GRPE had considered the situation and expressed its wish to have the 05 series of amendments to Regulation No. 83 adopted by WP.29 and AC.1 at the earliest opportunity.
- 21. The expert from United Kingdom presented a proposal to amend Regulation No. 83, 05 series of amendments in order to bring its text in line with the equirements contained in EC Directive 1999/102/EC (TRANS/WP.29/GRPE/2000/13 and informal document No. 3, containing the French text).
- 22. GRPE adopted the proposal and asked the secretary to transmit it to WP.29 and to the Administrative Committee AC.1 for consideration at its sixteenth session (November 2000). In this respect, it was agreed that the proposal would be considered in parallel to the proposal for draft 05 series of amendments to Regulation No. 83 (TRANS/WP.29/2000/41).
- 23. The expert from France recalled her proposal to introduce into Regulation No. 83 prescriptions concerning type approval of vehicles equipped with anti-pollution regenerative devices (TRANS/WP.29/GRPE/10)
- 24. The expert from Germany referred to the French proposal (see para. 23 above and suggested that the test procedure should be clarified. The expert from France welcomed the comments made by Germany and suggested to convene a restricted drafting group which should meet in due time in order to prepare a revision of document TRANS/WP.29/GRPE/2000/10 for consideration at the next GRPE. It was also agreed that the scope of the proposal should be initially limited to vehicles which are approved according to Regulation No. 83 (passenger cars and light-duty vehicles).

AMENDMENTS TO ECE REGULATIONS WITH RESPECT TO LPG- AND NG-FUELLED VEHICLES/ENGINES

Proposal for a draft Regulation concerning the specific equipment of motor vehicles fuelled by compressed natural gas (CNG)

Documentation: TRANS/WP.29/GRPE/1999/9.

25. The secretariat informed GRPE that, during the one-hundred-and-twentieth session of WP.29, the proposal for a draft Regulation had been

adopted by AC.1 (TRANS/WP.29/703, para. 186). He added that the text of the above Regulation would be published as document TRANS/WP.29/704 and the entry into force of this new Regulation was estimated for the beginning of the year 2001.

26. GRPE considered a proposal by the secretariat to introduce some clarifications into the text of the Regulation (TRANS/WP.29/GRPE/1999/9). In addition, some editorial corrections were proposed by the expert from the Netherlands.

- 27. The expert from Italy said that in his view the draft Regulation needed to be corrected since some mistakes had slipped into its text; therefore he expressed the intention to submit to WP.29 a proposal for a corrigendum. He also invited GRPE experts to provide him with possible additional comments. In this respect, the expert from France confirmed that some technical prescriptions needed to be amended.
- 28. GRPE asked the secretary to submit to WP.29 and to the Administrative Committee AC.1 for consideration at its sixteenth session (November 2000) a draft corrigendum based on the text of document TRANS/WP.29/GRPE/1999/9, the corrections which would be submitted by the expert from Italy and those presented by the expert from Netherlands.

REGULATION No. 96 (Emissions of agricultural and forestry tractors)

<u>Documentation</u>: TRANS/WP.29/GRPE/2000/3, TRANS/WP.29/GRPE/2000/8; informal document No. 15 of the annex to this report.

- 29. The expert from Italy introduced a proposal aimed at bringing the text of Regulation No. 96 in line with Directive 97/68/EC and the text of the proposal for an EC Directive which was being discussed by the Council of the European Union (TRANS/WP.29/GRPE/2000/8). He said that his proposal had been based on document TRANS/WP.29/GRPE/2000/3, which had been presented by the expert from EUROMOT at the previous session.
- 30. Following some comments made by the experts from Germany and Poland, the expert from Italy suggested to amend document TRANS/WP.29/GRPE/2000/8, by introducing the following reproduced provisions of informal document No. 15.

Paragraph 1., amend to read:

"

- aerial lifts
- mobile cranes. "

Paragraph 4.4.3., replace the letter E with the letter D

Insert new paragraphs 5.1.2. to 5.1.5., to read :

"5.1.2. The technical measures taken by the manufacturer must be such as to ensure that the mentioned emissions are effectively limited,

pursuant to this Regulation, throughout the normal life of the engine and under normal conditions of use. These provisions are deemed to be met if the provisions of paragraphs 5.2.1. and 7.4.2.1. are respectively complied with.

5.1.3. If a catalytic converter and/or a particulate trap is used the manufacturer must prove by durability tests, which the manufacturer may carry out in accordance with good engineering practice, and by corresponding records, that these after-treatment devices can be expected to function properly for the lifetime of the engine. The records must be produced in compliance with the requirements of paragraph 7.3. and in particular with section 7.3.3. A corresponding warranty must be guaranted to the customer.

- 5.1.4. Systematic replacement of the device, after a certain running time of the engine, is permissible. Any adjustment, repair, dissassembly, cleaning or replacement of engine components or systems which is performed on a periodic basis to prevent malfunction of the engine in context with the after-treatment device, shall only be done to the extent that is technologically necessary to assure proper functioning of the emission control system. Accordingly scheduled maintenance requirements must be included in the customer's manual, and be covered by the warranty provisions mentioned above, and be approved before an approval is granted.
- 5.1.5. The corresponding extract from the manual with respect to maintenance/replacements of the treatment device(s), and to the warranty conditions, must be included in the information document as set out in the appendix of annex 1B to this Regulation."

Paragraph 5.2.3., renumber as paragraph 5.2.2.

Insert a new paragraph 12.10., to read :

"12.10. By derogation to the provisions stipulated on paragraphs 12.6., 12.7., 12.8, and 12.9, Contracting Parties applying this Regulation may postpone each date mentioned in the above paragraphs for two years in respect of engines with a production date prior to the saisd dates."

Paragraph 12.10.,(former) renumber as paragraph 12.11.

31. GRPE adopted document TRANS/WP.29/GRPE/2000/8 as amended by informal document No. 15 (see para. 30 above) and asked the Secretary to submit it to WP.29 and to the Administrative Committee AC.1 for consideration at its sixteenth session (November 2000) as a proposal for the 01 series of amendments to Regulation No. 96. GRPE also agreed that the subject should not be considered at the next session.

REGULATION NO. 100 (Battery electric vehicles)

Documentation: TRANS/WP.29/GRPE/2000/9.

- 32. The expert from France recalled her proposal to introduce in Regulation No. 100 provisions aimed at limiting the hydrogen flow released in the air during the battery recharge operation (TRANS/WP.29/GRPE/2000/9). She said that, due to its strong flammability properties, an accident could occur in closed areas (e.g. underground parkings) even in the presence of a small concentration of hydrogen.
- 33. The expert from OICA entered a reservation on the French proposal, since in his opinion it required to be modified in order to reduce type approval costs. In this respect, he suggested that both battery and recharger should be tested together. He also informed GRPE about the intention of his organization to submit an alternative proposal to the next GRPE session.
- 34. GRPE agreed to resume consideration of this matter at its next session on the basis of the French proposal (TRANS/WP.29/GRPE/2000/9) and the OICA proposal, expected to be timely submitted to the secretariat.

REGULATION NO. 101 (Emissions of carbon dioxide and fuel consumption of M1 and N1 vehicles)

 $\frac{\text{Documentation}}{\text{document No. 9 of the annex to this report.}} \text{TRANS/WP.29/GRPE/2000/12; informal document No. 9}$

- 35. The expert from France presented a proposal to align the text of Regulation No. 101 to EC Directive 1999/100/EC (TRANS/WP.29/GRPE/2000/11).
- 36. The following amendments suggested by the expert from the EC were agreed:

Paragraph 5.2.4., amend to read:

" 5.2.4.....

For LPG and natural gas, that fuel unit must be used...... communication document as defined in annex 3.

(a) "

Annex 3, paragraph 7.1.2., add the following footnote 4/ to read :

- "4/ For vehicles fuelled with NG, the unit 1/100 km is replaced by m^3/km "
- 37. GRPE adopted the proposal as amended (see para. 36 above) and requested the Secretary to submit it to WP.29 and to the Administrative Committee AC.1 for consideration at its sixteenth session (November 2000) as a proposal for Supplement 4 to Regulation No. 101. GRPE also agreed that consideration of the proposal would be subject to the adoption of the 05 series of amendments to Regulation No. 83 (see para. 22 above).
- 38. Consideration of document TRANS/WP.29/GRPE/2000/12 concerning the introduction into Regulation No. 101 of prescripions concerning type approval of vehicles equipped with anti-pollution regenerative devices was deferred to the next session (see para. 24 above).

PERSPECTIVES IN TRANSPORT AND THE ENVIRONMENT

(a) Technical requirements on vehicles after the year 2000

- 39. Information was given by the expert from the European Commission concerning the development in the Auto-Oil II Programme. He said that a technical report would be made available soon and that a further step would be represented by the Clean Air for Europe programme which would be launched in the year 2001.
- 40. GRPE agreed to resume consideration of this subject at its next session.

(b) Reduction of carbon dioxide emissions and fuel consumption

41. The expert from the EC recalled the agreements reached between the EC and the European Vehicle Manufacturers Association (ACEA) and between the EC and the Korean industry (KAMA) to reduce the average $\rm CO_2$ emission value of new passenger cars to 140 g/km by 2008. He also said that the Commission intended to revise Directive 99/102/EC on fuel consumption.

EXCHANGE OF INFORMATION ON NATIONAL AND INTERNATIONAL REQUIREMENTS ON EMISSIONS

 $\underline{\text{Documentation:}}$ Informal documents Nos. 5, 6, and 7 of the annex to this report.

- 42. The expert from Japan informed GRPE that his country had decided to implement early the New-Long Term Regulations for diesel-powered vehicles (informal document No. 5). He said that new Regulations which would require a reduction of about 50 per cent of the present NO_x and particulate emissions should enter into force by 2007. He also informed GRPE about new measures for in-use diesel-powered vehicles which would require the mandatory installation of diesel particulate filter for all diesel vehicles that run in the Tokyo area.
- 43. The expert from the United States of America gave a presentation of the actions taken in her country to regulate emissions from non-road recreational vehicles (informal document No. 6). She also gave an account of emission standards recently adopted or proposed in the United States of America (informal document No. 7) with particular regard to small spark-ignition handheld engines and heavy-duty engines.

- 44. The expert from the EC informed GRPE about the adoption of a Directive 1999/96/EC on heavy-duty engine emissions. He also said that the Commission had presented a proposal in order to better specify the application of the in-use compliance testing and had submitted to Council a proposal to amend Directive 70/220/EEC in order to postpone the mandatory application of the On-Board Diagnostic (OBD) for LPG- and CNG-fuelled vehicles. Finally, he recalled the draft EC proposal to make more stringent the emission limits from motorcycles.
- 45. The expert from the United Kingdom said that in his country in order to promote the reduction of CO_2 , a change in the vehicle taxation system had been considered. In addition he said that the use of low sulphur petrol would be promoted.
- 46. The expert from the Russian Federation informed GRPE that as from 1999 Regulation No. 83, 02 series of amendments had been made mandatory in his country and that the following series of amendements was expected to be adopted as from the year 2002.
- 47. The expert from the Netherlands said that a reduced taxation system for diesel cars meeting the 2005 standard had been introduced in his country. He also added that LPG vehicles would be subject to a lower tax regime.
- 48. The expert from Hungary informed GRPE that his country intended to fully harmonize its national rules with those enforced in the European Union. In this respect, he mentioned Directive 97/86/EC (emission of non-road mobile machinery) which should be adopted in the year 2000.
- 49. The expert from Denmark said that a limit of 15 ppm of sulphur level had been fixed for diesel fuel. The expert from the Czech Republic informed GRPE about the full compliance of the Czech Highway Code with the European prescriptions on motor vehicles.
- 50. The expert from the Republic of South Africa confirmed the forthcoming accession of his country to the 1958 and 1998 Agreements and estimated the adoption of EURO 2 standards by the end of the year 2002.

OTHER BUSINESS

(a) Replacement catalytic converters for vehicles with OBD

51. The expert from the European Commission recalled that, in accordance with article 4 of Directive 98/69/EC (OJ No. L350 of 28/12/98), the Commission was dealing with the issue of compatibility between replacement catalytic converters and the OBD system. In this respect, he said that the Commission would make a proposal to introduce replacement catalytic converters in the text of Directive 70/220/EEC and to consider separate prescriptions with or without on-board diagnostic systems (OBD).

- 52. The Chairman invited the expert from the EC to transmit to GRPE the text of the relevant proposal in order to align the corresponding ECE Regulation No. 83.
- 53. GRPE agreed to resume consideration of this subject at its next session.

(b) Particulate emissions

- 54. The Chairman of the informal meeting on particulate emissions (see para. 2 above) informed GRPE that, during the meeting, several presentations and reports had been made on developments in the field of particulate emissions from road vehicles.
- 55. The Chairman said the meeting had dealt with the particulate measurement procedures with particular regard to the adequacy of the current test procedures to measure the low levels of particulates that would be emitted by engines meeting the future stringent emission rules.
- 56. He said that after two years the informal meeting had probably completed its mandate which mainly concerned the collection and exchange of information on the particulate emission subject. He envisaged that GRPE should receive at its next session complete information about the results of cientific work carried out in order to decide how to amend the measurement procedure and take account of health risk assessment.
- 57. The expert from the United States of America pointed out that at present no consensus had been found on the particulate measurement procedure and suggested that additional information should be given to GRPE experts. Therefore, she proposed that GRPE should resume discussion at its next session in order to find an agreement on the subject.
- 58. Following a request made by the expert from France, it was agreed that the Chairman of the informal meeting on particulate emissions would submit to GRPE a summary document concerning the activities and results achieved by the group.
- 59. The expert from Germany suggested that GRPE should also receive advice by the experts on health, in order to consider properly the health risk generated by particulate emissions. In this respect, the Chairman of GRPE asked the Secretary to contact health experts of the World Health Organization (WHO), in order to receive medical advice on particulate effects during the forthcoming GRPE sessions.
- 60. GRPE noted the progress made and agreed that an official discussion on particulate emissions would take place during its next session. Therefore, it was agreed that the informal meeting would not schedule a session during the next GRPE.

(c) Evolution of fuel quality

- 61. The expert from the United States of America informed GRPE about the results of the World Fuel Conference which had been held in Brussels. He said that the Environment Commissioner had stressed the importance of observing the best available technology before setting new fuel standards.
- 62. The expert from CONCAWE said that a cooperation agreement had been reached by CONCAWE with the Joint Research Centre (JRC) and the European Council for Automotive Research and Development (EUCAR) in the field of emissions related to engines, lubricants and fuels. He said that the technical co-operative efforts would focus on the evaluation of the performance of alternative fuels and advanced future gasoline and diesel fuels in connection with future engines technology.
- 63. The expert from the EC informed GRPE that as from 2005 both gasoline and diesel fuels would be required to contain not more than 15 ppm of sulphur (low-sulphur fuels).
- 64. The expert from OICA announced that a new edition of the Worldwide Fuel Charter would be presented at the next GRPE session.
- 65. The Chairman welcomed the possible cooperation between vehicle manufacturers and fuel producers, which could help in developing new technologies and achieving maximum effectiveness of anti-pollution devices. However, he reiterated that GRPE had no mandate to regulate fuels.
- 66. GRPE agreed to resume consideration of this subject at its next session.

(d) Development of a world-wide motorcycle emission test cycle (WMTC)

- 67. The Chairman of the WMTC informal group reported orally on the results of the meeting which was held on 23 May 2000 (afternoon only). He informed GRPE that some activities had been started by IMMA and TNO (Netherlands) and that a co-operation with TUV (Germany) was expected.
- 68. He foresaw the completion of the work by January 2001 in order to present a candidate for a world-wide test cycle. He finally informed the experts that a Fundamental Element (FE) group should meet before the next GRPE session in order to deal with some technical matters.
- 69. The expert from the European Commission welcomed the proposal for a world-wide test cycle and recalled that it was in line with the work carried out within the EU. In particular, he reminded GRPE that the Commission would like to adopt a new test cycle which should be applicable as from 2006.
- 70. The expert from Japan supported the proposal for having a world-wide harmonized cycle. However he informed GRPE that his country had recently modified the motorcycle test cycle and it would be therefore difficult for Japan to change it again in such a short time.
- 71. The expert from the United States of America considered the work carried out by WMTC as a good opportunity for global harmonization to be achieved under the framework of the 1998 Global Agreement.

- 72. The expert from Italy also considered a harmonized cycle as the best suitable choice and assured his co-operation in the work.
- 73. GRPE noted the oral report by the Chairman of WMTC group and agreed that the next meeting of this group should be held on 16 January 2001, the first day of the forty-first GRPE session (see para. 82 below).
- (e) Regulation No. 67 (Equipment for liquefied petroleum gas)

Documentation: Informal documents Nos. 10 and 12 of annex 1 to this report.

- 74. Consideration was given to a proposal by France, Italy, Poland and the Netherlands to introduce some corrections into the text of Regulation No. 67 (informal document No. 10). In particular, it was deemed necessary to better describe the definitions of a type of container and the bonfire test and to correct the ozone test duration.
- 75. The following amendments were agreed by GRPE:

Paragraph 2.4., amend to read :

- " 2.4. "Type of container" means containers which do not differ in respect to the following characteristics as specified in annex 10:
 - the trade name/(s) or trade mark/(s) ;
 -
 - the height (in case of special containers) "

Paragraph 2.6.1., amend to read :

" 2.6.1. The bonfire test.....

 \ldots with the parent container :

- same type approval owner;
- same shape (cylindrical, special shape);
-
- 76. GRPE adopted the proposal as amended (see para. 74 above) and requested the Secretary to submit it to WP.29 and to the Administrative Committee AC.1 for consideration at its sixteenth session (November 2000) as a proposal for Corrigendum 1 to the 01 series of amendments to Regulation No. 67.
- 77. The expert from AEGPL presented a strategy paper on LPG passenger cars and Light Duty Vehicles (informal document No. 12). The information was noted by GRPE.

(f) Application of ECE Regulations to hybrid vehicles

<u>Documentation</u>: Informal document No. 11 of the annex to this report

78. The expert from France drew the attention of GRPE to the application of emission Regulations to hybrid vehicles (informal document No. 11). She said

that these vehicles which emit very low quantity of pollutants could be type approved with regard to their thermic engine properties. However, emission Regulations should also take into account the operation of these vehicle with an electric motor. Therefore, she suggested that some Regulations (e.g. Regulations Nos. 83, 85 and 101) should be amended in the future.

- 79. GRPE noted the presentation by France and agreed to consider the subject in detail at the next session.
- (g) Power of engines intended to be fitted on non-road mobile machinery and agricultural tractors

Documentation: Informal document No. 13 of the annex to this report

- 80. The expert from Italy suggested that a new ECE Regulation should be established in order to harmonize the declaration of power of engines intended for use in agricultural tractors and other non-road mobile machinery along the lines set by the existing regulations on exhaust emission control (informal document No. 13). He expressed the intention to present a proposal at the next GRPE sessions.
- 81. GRPE welcomed in principle the suggestion by Italy and agreed that WP.29 should give GRPE a mandate in order to regulate this matter.

AGENDA FOR THE NEXT SESSION

- 82. For its forty-first session, GRPE agreed to continue with the scheme of separate (two only) informal meetings incorporated in the agenda:
- (a) Informal meeting of the working group on the world-wide heavy-duty certification procedure (WHDC)

To be held at Geneva, on Tuesday 16 January 2000 (14.30 h to 17.30 h). The agenda of the session will be prepared and distributed by the WHDC secretariat to the WHDC members prior to the meeting.

(b) Informal meeting of the GRPE working group on the world-wide motorcycle emission test cycle (WMTC)

To be held at Geneva, on Wednesday 17 January 2001 (9.30 h to 12.30).

(c) Forty-first session of the GRPE proper

To be held at Geneva, from Wednesday 17 January (14.30 h) to Friday 19 January (12.30 h) 2001. 1/ The following agenda was agreed:

- 1. Regulation No. 49 (Emissions of C.I., NG, and P.I.(LPG) engines)
- 1.1. Development of the emission testing procedure
- 2. Regulation No. 83 (Emissions of M1 and N1 categories of vehicles)
- 3. ECE Regulations concerning the LPG- and NG-fuelled vehicles/engines
- 4. Regulation No. 100 (Battery electric vehicles)
- 5. Regulation no. 101 (Emissions of carbon dioxide and fuel consumption of M1 and N1 vehicles)
- 6. Perspectives in transport and the environment
- 6.1. Technical requirements on vehicles after the year 2000
- 6.2. Reduction of carbon dioxide emissions and fuel consumption
- 7. Exchange of information on national and international requirements on emissions $\underline{2}/$
- 8. Other business
- 8.1 Replacement catalytic converters for vehicles with OBD
- 8.2. Particulate emissions
- 8.3. Evolution of fuel quality
- 8.4. Development of a world-wide motorcycle emission test cycle (WMTC)

8.5. Application of ECE Regulations to Hybrid Vehicles

^{1/} As part of the secretariat's efforts to reduce expenditure, all the official documents distributed prior to the session by mail will not be available in the conference room for distribution to session participants. Delegates are kindly requested to bring their copies of documents to the meeting.

 $[\]underline{2}/$ Delegations are invited to submit brief statements on the latest status in national requirements and, if necessary, to supplement this information orally.

8.6. Power of engines intended to be fitted on non-road mobile machinery and agricultural tractors

 $\underline{\underline{\text{Annex}}}$ List of informal documents distributed without a symbol during the session

No.	Transmitted by	Agenda item	Language	<u>Title</u>
1.	Switzerland	1.1.	E/F	Verified Particulate Trap Systems for Diesel Engines - "Filter list" Swiss Agency for the Environment, Forests and Landscape.
2.	Switzerland	2.	E	Efficiency of Diesel Particulate Traps - VERT - Certification Test.
3.	France	2.	F	Proposition de Projet d'Amendements à la Serie 05 d'Amendements au Reglèment No. 83
4.	OICA	2.	Е	OICA Proposal for a Corrigendum 2 to the 04 Series of Amendments to Regulation No. 83.
5.	Japan	8.	E	Recent Developments of Diesel- powered Vehicle Exhaust Emissions in Japan.
6.	United States of America	8.	E	Non Road Recreational Vehicle Emission Standards.
7.	United States of America	8.	E	Emission Standards Recently Adopted or proposed in the USA.
8.	United Kingdom	1.2	E	Proposal for amendment to Regulation No. 49
9.	Germany	2. and 6.	Е	Type Approval Procedure for Vehicles Equipped With Periodically Regenerating Anti-Pollution Devices
10.	France,OICA Italy Netherlands Poland	9.5.	E	Proposal for a corrigendum to draft 01 series of amendments to Regulation No. 67
No.	Transmitted by	Agenda item	Language	<u>Title</u>

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11.	France	9.6.	E/F	Application of Regulations to Hybrid Vehicles
12.	AEGPL	9.5.	E	Strategy Paper on LPG Passenger Cars and Light Duty Vehicles
13.	Italy	9.7.	E	Preliminary Proposal for a Draft Regulations on the Measurement of Power of Agricultural Tractors and Non-Road Mobile Machinery
14.	United Kingdom	1.2.	E	Addendum to Informal Document No. 8
15.	Italy	4.	E	Proposal for Draft Amendments to Regulation No. 96