



**Economic and Social  
Council**

Distr.  
GENERAL

TRANS/WP.29/GRPE/42  
4 September 2001

Original: ENGLISH

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**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

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 FORTY-SECOND SESSION

(28 - 31 May 2001)

ATTENDANCE

1. GRPE held its forty-second session <sup>1</sup>/ from 28 May to 31 May (morning only) 2001, 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): Belgium; Canada; Czech Republic; Denmark; France; Germany; Hungary; Italy; Japan; Netherlands; Norway; Poland; Russian Federation; South Africa; Spain; Switzerland; Ukraine; United Kingdom; United States of America; Yugoslavia. Experts from the European Commission (EC) also participated. Experts from the following non-governmental organizations took part in the session: 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 Natural Gas Vehicle Association (ENGVA); Federation of European Motorcyclists Associations (FEMA). An expert from the Committee for European Construction Equipment (CECE) participated at the invitation of the secretariat.

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<sup>1</sup>/ The dates of the session were advanced, compared to those agreed by GRPE at its forty-first session (TRANS/WP.29/GRPE/41, para. 81.), in order to allow more efficient organization of the three informal meetings, instead of the two, held prior and after the forty-first GRPE session proper. The modification was made at the request of the Chairmen of the informal meetings and during the added half-day no interpretation was provided.

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2. The eleventh informal meeting of the GRPE working group on the worldwide heavy-duty certification procedure (WHDC group) was held on 28 May 2001 (morning only), under the chairmanship of Mr. C. Havenith (Netherlands). Experts from the following countries and organizations participated in the work: Belgium; Canada; Czech Republic; Germany; Hungary; Japan; Netherlands; Norway; Russian Federation; Switzerland; Ukraine; United States of America; European Community (EC); International Organization for Standardization (ISO); International Organization of Motor Vehicle Manufacturers (OICA); European Association of Internal Combustion Engine Manufactures (EUROMOT); Automobile Emissions Control by Catalysts (AECC/CEFIC). A summary of the proceedings of this informal meeting is given below (paras. 5-7).

3. The third informal meeting of the GRPE working group on the world-wide motorcycle emission test cycle (WMTC) was held on 28 May 2001 (afternoon only), under the chairmanship of Mr. Havenith (Netherlands). Experts from the following countries and organizations participated in the work: Belgium, Canada; Czech Republic; Germany; Hungary; Japan; Netherlands; Norway; Spain; Switzerland; Ukraine; United Kingdom; United States of America; European Community (EC); International Organization for Standardization (ISO); International Organization of Motor Vehicle Manufacturers (OICA); International Motorcycle Manufacturers Association (IMMA); Automobile Emissions Control by Catalysts (AECC/CEFIC); A summary of the proceedings of this informal meeting is given below (paras. 14-18).

4. The first informal meeting of the GRPE Particle Measurement Programme (PMP) working group was held on 31 May 2001 under the Chairmanship of Mr. M. Dunne (United Kingdom). Experts from the following countries and organizations participated in the work: Belgium, Canada; Czech Republic; Denmark; France; Germany; Hungary; Italy; Japan; Netherlands; Norway; Poland; Russian Federation; South Africa; Spain; Switzerland; Ukraine; United Kingdom; United States of America; European Community (EC); 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 Internal Combustion Engine Manufactures (EUROMOT); The Oil Companies' European Organization for Environment, Health and Safety (CONCAWE); Automobile Emissions Control by Catalysts (AECC/CEFIC); Federation of European Motorcyclists Associations (FEMA). A summary of the proceedings of this informal meeting is given below (paras. 11-13).

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

Development of the emission testing procedure

Documentation: TRANS/WP.29/GRPE/2001/2; informal document No. 2 of annex 1 to this report.

5. The Chairman of the WHDC group presented the final report of the emission cycle development (informal document No. 2), updating document TRANS/WP.29/GRPE/2001/2. He said that the Step 1 validation programme conducted in the Swiss laboratory EMPA should be completed by the end of June 2001, and validation tests were also in progress in Japan and the United States of America. He said that Step 2 of the validation programme, including also gas-fuelled engines' tests in Germany, should start in September 2001, well in line with the timetable, thanks to good cooperation of all researchers. He also reported that the expert from the United States of America agreed to lead the work on addressing the off-cycle emissions, an important part of the package, ensuring that the engines would keep their environmental performance in the real traffic.

6. The expert from ISO reported that after the publication of standard ISO 16185 defining the engine family, there were 19 positive votes and one negative vote on the draft standard ISO 16183, which concerned the measurement procedure. He said that the matter was being discussed and hoped that the objections to this draft could be eliminated before the next session of GRPE.

7. The Chairman of GRPE thanked all members of the WHDC working group, and its Chairman, Mr. C. Havenith for the results of their work, and judged the outlook of the project as very promising. He envisaged that a proposal for the world-wide heavy-duty emission cycle should be ready in about two years as a basis for a global technical regulation under the 1998 Agreement, and might be applied globally five years after that.

#### PARTICULATE EMISSIONS

##### (a) Consideration of the subject in the GRPE session

Documentation: Informal documents Nos. 1 and 6 of annex 1 to this report.

8. The expert from the United Kingdom introduced informal document No. 1, providing a programme overview and the timetable of the Particle Measurement Programme (PMP), proposed on the basis of the mandate which had been agreed by GRPE at its forty-first session (TRANS/WP.29/GRPE/41, para. 43 and annex 2). GRPE noted with satisfaction that the final report on the PMP programme was scheduled for the January 2003 session of GRPE.

9. Following the intervention of the experts from OICA and CONCAWE, GRPE made it clear that non-governmental organizations were welcome to participate in the PMP working group and that they should also cooperate with the PMP steering group. It was agreed in principle that each party of the PMP programme was expected to carry out the work, bring forward proposals and allow these proposals to be screened in or out of the programme.

10. The expert from Canada introduced information about the photonics-based nanometrology method, using laser-induced incandescence for measuring the distribution and size of carbonaceous particles in engine exhaust gases (informal document No. 6). He also distributed a leaflet providing the addresses of websites for further information: <http://www.icpet.nrc.ca> and <http://www.artium.com>.

##### (b) Meeting of the GRPE Particle Measurement Programme (PMP) working group

11. The PMP group met after the GRPE session proper and was expected to have the minutes of the meeting distributed to its participants (see para. 4 above), and its Chairman reporting to the next session of GRPE in January 2002.

12. Concerning the participation in the work of the PMP group (see para. 9 above), it agreed in principle that the "steering group" proposed in informal document No. 1 should more appropriately be called "PMP working group" and should comprise the GRPE experts.

13. The PMP programme should expand the knowledge concerning the exhaust particles and their harmful effects to human health and allow selecting or developing of a suitable measuring method.

#### DEVELOPMENT OF A WORLDWIDE MOTORCYCLE EMISSION TEST CYCLE (WMTC)

14. The Chairman of the WMTC working group briefed GRPE about the meeting held prior the GRPE session (see para. 3 above). He said that the updated draft test cycle and the gear-shift model had been completed and a provisional decision made to differentiate motorcycles for the emission test in three categories with respect to the engine cylinder capacity and the specific power.

15. He informed GRPE that the first stage validation programme was expected to be completed in June 2001, and a decision concerning the second stage should follow,

involving at least ten laboratories and testing of about sixty motorcycles, in Europe, Japan and the United States of America. He said that the work should be concluded in time for presentation to GRPE in January 2003 of the harmonized emission test as a basis for a global technical regulation under the 1998 Agreement. He noted that fast progress was essential for the European Community, planning to introduce the harmonized motorcycle emission test from the year 2006.

16. The expert from the European Community drew the attention of GRPE to informal document No. 10, giving details concerning the European Commission proposals for reducing the emission limits for motorcycles (see para. 43 below).

17. Following the intervention of the expert from the United States of America, the Chairman of the WMTC group gave details of the consideration by the group of various proposals in proposing the emission test. He confirmed that compromises had been necessary and that the maximum test speed had been raised to 125 km/h in response to the comments, which had been received from the United States of America. He envisaged that participation of all parties concerned, including those from the United States of America would clarify any remaining concerns.

18. The Chairman of GRPE acknowledged the work done by the WMTC working group, thanked to its Chairman, and encouraged their further work, striving to address all global aspects of the motorcycle emission test harmonization.

REGULATION No. 110 (Specific components for CNG)

Documentation: TRANS/WP.29/GRPE/2001/6; TRANS/WP.29/GRPE/2001/7; informal documents Nos. 17, 18, 20 and 22 of annex 1 to this report.

19. GRPE considered and adopted the proposal by Italy for draft Corrigendum 2 to the Regulation (TRANS/WP.29/GRPE/2001/6, together with an improved text for paragraph 17.6.1., proposed by France, and based on Regulation No. 67, 01 series of amendments (reproduced below)). It was noted that an additional explanation to the proposed corrigendum was given by ENGVA in informal document No. 20. The secretariat was requested to convey the agreement of GRPE to WP.29 at its one-hundred-and-twenty-fourth session, where the respective corrigendum to the Regulation was expected to be considered (document TRANS/WP.29/2001/32).

Paragraph 17.6.1., correct to read:

"17.6.1. Rigid fuel lines shall be made of seamless material: either stainless steel or steel with corrosion-resistant coating."

20. The expert from the Russian Federation introduced informal document No. 22, giving details of his proposal concerning specific marking of CNG components with respect to low ambient temperatures (TRANS/WP.29/GRPE/2001/7). During the discussion, the expert from OICA proposed to adopt specific marking only for parts approved for freezing temperatures down to -40 °C and leave not marked all parts approved to -20 °C only. The expert from Italy referred to a recently published draft ISO standard and said that in line with that all CNG components should be approved to -40 °C. His intervention was complemented by the expert from ISO, who said that there might be some other modifications necessary to align the Regulation with the future ISO standard.

21. The expert from ENGVA presented a proposal for another set of amendments to Regulation No. 110 (informal document No. 17), as well as a suggestion that dual fuel engines could be based on a compression-ignition principle, using diesel fuel for pilot ignition of CNG and capable of operating on diesel fuel only. He justified the economical and environmental advantages of this technology (informal document No. 18).

22. Noting the above-mentioned proposals, GRPE invited the experts from the Russian Federation and ENGVA to prepare a joint proposal for draft Supplement 1 to Regulation No. 110, based on informal documents Nos. 17, 18 and 22 and reflecting also any

modifications considered necessary with respect to the related updates of ISO standards.

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

Documentation: TRANS/WP.29/GRPE/2000/12; informal document No. 13 of annex 1 to this report.

23. The proposal (TRANS/WP.29/GRPE/2000/12) was introduced by the expert from France, together with informal document No. 13, complementing it by the provisions concerning the periodically regenerating anti-pollution devices, which had already been proposed for Regulation No. 83 (TRANS/WP.29/GRPE/41, paras. 20 and 29).

24. The expert from Germany supported the proposal in principle, although he suggested some modifications of details. Some comments were also provided by the expert from OICA.

25. Noting that some improvement was possible, GRPE invited the experts from France, Germany and OICA to refine the proposal in a joint effort, if possible for consideration at the next session of GRPE, in January 2001. The secretariat noted that it would be appreciated if the proposal could be received before the end of October 2001, in order to submit it for publication as an official working document in time, i.e. ten weeks before the session.

REGULATION No. 67 (Equipment for liquefied petroleum gas)

Documentation: TRANS/WP.29/GRPE/2001/8; informal documents Nos. 12, 24, 25 and 25 bis. of annex 1 to this report.

26. The expert from AEGPL introduced informal document No. 25, simplifying and replacing the previous proposal for introducing the new "Euro" filling unit into the Regulations (TRANS/WP.29/GRPE/2001/8). She informed GRPE that if adopted, the proposal would allow for approving the new vehicles with the new Euro filling unit. This would not affect the existing approvals or production and therefore no transitional provisions were necessary. She envisaged that a second stage proposal requesting that from a certain date it could be approved only with the new Euro filling unit would be submitted by AEGPL at a later stage, possibly already for consideration at the next session of GRPE, in January 2002.

27. After all concerns were clarified, in particular with respect to the existing approvals and the LPG fuelled vehicles, which were already in operation, GRPE adopted the proposal as contained in informal document No. 25, and requested the secretariat to transform it into an official working document, for consideration by WP.29 and AC.1 at their sessions of November 2001. The expert from AEGPL assisted the secretariat by cleaning the proposal of comments and justifications; the final proposal was distributed as informal document No. 25 bis.

28. GRPE noted that the adopted proposal eliminated the concerns by OICA (informal document No. 12), referring to the transitional provisions of document TRANS/WP.29/GRPE/2001/8.

29. The expert from the Netherlands submitted the proposal for the introduction of all-composite containers into Regulation No. 67 (informal document No. 24). Due to lack of time, GRPE did not accept his offer to make a presentation about advantages of this technology, however, it agreed to consider the proposal at its next session and invited the secretariat to distribute the proposal with an official symbol.

REPLACEMENT CATALYTIC CONVERTERS FOR VEHICLES WITH OBD

30. The expert from the European Community informed GRPE that the matter was being dealt with in the proposed revision of annex 13 of Directive 70/220/EEC. He gave few details of the proposal and agreed to prepare the corresponding proposal(s) for adapting Regulation No. 83 and Regulation No. 103.

APPLICATION OF ECE REGULATIONS TO HYBRID VEHICLES

Documentation: TRANS/WP.29/GRPE/2001/1; informal documents Nos. 3, 14, 15 and 23 of annex 1 to this report.

31. Referring to her original proposal (TRANS/WP.29/GRPE/2001/1) and its consideration during the forty-first session, the expert from France presented additional details (informal document No. 14). She proposed to set up an informal group on hybrid vehicles (HEV'S) and tabled informal document No. 15, proposing its mandate.

32. The expert from the Netherlands contributed informal document No. 23, considering how ECE Regulations would need to be adapted in order to accommodate provisions for various hybrid designs.

33. The expert from Italy supported the proposal to set up an informal group on hybrid vehicles and drew the attention of GRPE to the suggestions tabled by Italy in informal document No. 3, as comments to TRANS/WP.29/GRPE/2001/1.

34. After the discussion that followed, GRPE agreed to propose to WP.29 the setting up of an informal group on hybrid vehicles. It also agreed that, as a priority, the informal group should consider the electric hybrid vehicles and, at a second stage, other hybrid designs, using the contribution made by the Netherlands (see para. 32 above). The adopted mandate of the informal group is reproduced in annex 2 to this report. It was anticipated that the informal group should also consider in detail the submissions by Italy and France (including informal documents Nos. 3 and 14). Already during the session the experts from France, Germany, Italy, Japan, Netherlands, United Kingdom and OICA indicated their intention to participate in the work, and it was made clear that the group would be open to all other interested experts in this field.

35. The Chairman of GRPE agreed to convey the proposal for establishing a new informal group to WP.29 during the one-hundred-and-twenty-fourth session in June 2001. (Note by the secretariat: WP.29 endorsed the proposal - see TRANS/WP.29/792, para. 78.)

REGULATION No. 96 (Off-road engines)

Documentation: TRANS/WP.29/GRPE/2001/9; informal document No. 5 of annex 1 to this report.

36. The expert from Poland recalled his presentation of the proposal (TRANS/WP.29/GRPE/2001/9) during the previous session and repeated the justifications (TRANS/WP.29/GRPE/41, paras. 77-80).

37. In view of some additional questions posed by Italy, the expert from the European Community agreed to compare the proposal of document TRANS/WP.29/GRPE/2001/9 with Directive 97/68/EC. He indicated that an additional modification of Regulation No. 96 would be required, to align annex 1B with that of the Directive. (Note by the secretariat: the confirmation has already been received, together with some additional proposals referring to the alignment with the Directive.)

38. Informal document No. 5 received from Belarus was introduced by the secretariat. The Secretary explained that the examination of the proposal by Belarus for a corrigendum to Regulation No. 96 revealed a difference of the Russian text of the Regulation from the English and French versions and, therefore, the corrections

proposed by the secretariat had also been included in informal document No. 5. The expert from the Russian Federation agreed to verify the situation and inform GRPE of the result of his study at the next session.

39. In view of the continuing discussion, GRPE agreed to resume its consideration of the proposals for amendments and corrections to Regulation No. 96 at the next session. The expert from Poland volunteered to prepare the proposal from amending annex 1B of the Regulation and agreed to transmit it to the secretariat, with a copy to the expert from the European Community.

#### POWER OF ENGINES FOR NON-ROAD MOBILE MACHINERY AND AGRICULTURAL TRACTORS

Documentation: TRANS/WP.29/GRPE/2001/4; informal document No. 4 of annex 1 to this report.

40. The expert from Italy introduced informal document No. 4, document amending the proposal for the new draft Regulation (TRANS/WP.29/GRPE/2001/4). He said that, besides the comments noted during the previous session (TRANS/WP.29/GRPE/41, paras. 70-74), the informal document included the comments received from Poland.

41. During the consideration of informal document No. 4, the expert from the United Kingdom raised additional questions and some corrections were also proposed. The expert from ISO revealed that informal document No. 4 was based on standard ISO 14396 and its introduction would necessitate modifications to Directive 97/68/EC.

42. The expert from Italy noted the comments and agreed to convert informal document No. 4 into an official proposal and transmit it to the secretariat in time for publication and distribution for consideration at the next session of GRPE, in January 2002.

#### EXCHANGE OF INFORMATION ON NATIONAL AND INTERNATIONAL REQUIREMENTS ON EMISSIONS

Documentation: Informal documents Nos. 10 and 21 of annex 1 to this report.

43. The expert from the European Community introduced a detailed description of the current and Future European Community Requirements (informal document No. 10). There was no detailed discussion, although the document, which is a useful reference of the current state of the European Community legislation and its development, could be consulted in the website of WP.29, together with other informal documents distributed during the session: <http://www.unece.org/trans/main/welcwp29.htm>

44. The expert from the United States of America presented an update of the United States Regulatory activities (informal document No. 21). She explained that the new generation mobile source emission model would allow a more accurate estimate of the emissions produced by on-road and off-road mobile sources and gave details of the final rule addressing the emissions of hazardous air pollutants for motor vehicle petrol fuels (gasoline). The informal document provides also addresses of corresponding websites and could be consulted in the website of WP.29 (GRPE) - see para. 43 above.

45. The expert from Japan informed GRPE that NO<sub>x</sub> control was under examination in urban areas of Nagoya, Tokyo, Kyoto and Osaka, and that there are plans to strengthen the diesel emission standards for these cities.

46. The expert from South Africa reported that, whilst his country produces over 25 per cent of catalytic converters and has enforced stringent anti-tobacco legislation, there were no emission regulations for vehicles. He distributed a questionnaire asking the experts to advise the legislative authority of his country in respect of future regulatory action. The Chairman of GRPE acknowledged South Africa's efforts, commended that the country had become a Contracting Party to both the 1998 and 1958 Agreements

and invited the delegations to assist by responding to the questionnaire. He suggested that for the European Community Member States a single response should be prepared, because all the EC Member States apply the EC legislation.

OTHER BUSINESS

(a) Evolution of fuel quality

Documentation: Informal documents Nos. 7 and 9 of annex 1 to this report.

47. The expert from CONCAWE introduced informal document No. 7, explaining that paragraph 57 of the report of the forty-first session of GRPE did not reflect correctly the statement, which he had made during the session, and wished to have it corrected (see below). He said that premature introduction of sulphur-free fuels (10 mg/kg max S) on a Europe-wide basis would increase the net emissions of carbon dioxide due to the more energy demanding desulphurization processes in refineries.

"57. The expert from CONCAWE thanked OICA for again tabling their Fuels Charter. However, versus current fuel specifications, CONCAWE's assessment is that sulphur content is the only fuel property, which is significant to enable new vehicle technologies to achieve Euro IV-V emissions standards. In this regard, CONCAWE are awaiting the outcome of the European Commission's study on the need for sulphur levels below 50 ppm. CONCAWE are willing to work with other industry partners in joint programmes to better quantify the fuel quality needs of future engine technologies."

(Note by the secretariat: WP.29 approved at its one-hundred-and-twenty-fourth session the report of GRPE on its forty-first session, as corrected - see TRANS/WP.29/792, para. 38.)

48. The expert from OICA appreciated the willingness of CONCAWE to cooperate with the motor industry and reiterated that the ever more stringent emission limits require application of combustion and after-treatment technologies, which require low sulphur fuels. He stated that the benefits in the reduction of other pollutants might balance the increase of the net CO<sub>2</sub> emissions.

49. The expert from the European Community presented informal document No. 9, reproducing the proposal for amending EC Directive 98/70/EC, concerning the quality of petrol and diesel fuels. He noted that the "zero sulphur fuels" were proposed for EURO 4 in 2005 and said that the refinery disbenefits were taken into consideration.

50. The expert from Denmark informed GRPE that in his country refineries voluntarily decided not to use MTBE (methyl tertiary butyl-ether) as an octane number additive for 91 and 95 RON (Research Octane Number) petrol and use it only for the 98 RON petrol.

(b) On-board diagnostics (OBD) for heavy-duty vehicles

51. The GRPE Chairman considered the subject a matter of priority, which should be included in the process of developing the emission testing procedure (WHDC). To facilitate that, he proposed that starting from the next session, the heavy-duty OBD should be incorporated into item 1. of the GRPE agenda. His opinion was supported by a number of experts, including those from OICA and ISO, who stated that OBD for heavy-duty vehicles should be harmonized globally.

52. The expert from Japan confirmed the importance of the matter and informed GRPE that in his country it was planned to introduce the first regulatory step for heavy-duty vehicles OBD in 2003. He noted that more research work was necessary for developing a more complex step 2 regulation.



53. The expert from the United States of America regretted that the OBD had not been harmonized for light-duty vehicles and said that opportunity should not be missed in the case of heavy-duty vehicles. She confirmed the view that this should be a part of the WHDC process. Her opinion was supported by the expert from the European Community, who confirmed that bilateral discussions were in progress between the EC and the United States of America and considered it advantageous to extend the process into the global scale.

54. The Chairman of GRPE invited the experts from the European Community, Japan and the United States of America to consider the future steps and indicated that, if necessary, an informal group might be proposed to assist GRPE in the work.

(c) Hydrogen-fuelled vehicles

Documentation: Informal document No. 11 of annex 1 to this report.

55. The expert from Germany introduced informal document No. 1, and briefed GRPE about the European Integrated Hydrogen Project. He provided details about the two phases of the project, its partners, and gave information about the research vehicles.

56. The expert from ISO informed GRPE that hydrogen fuelling of vehicles relates to the work of ISO/TC197 - Hydrogen Technology, ISO/TC58 - Gas Cylinders, and ISO/TC22 - Road vehicles. He provided information about the related ISO standards already published and being developed. He suggested that cooperation should be established and maintained with these bodies, when considering the questions of regulatory control for these vehicles.

57. In the discussion, which followed, GRPE recalled the proposals of two new draft Regulations, for storing the liquid and gaseous hydrogen on board of vehicles, which had been submitted by Germany, and the invitation of WP.29 at the one-hundred-and-twenty-third session, to examine the interests in their establishing (TRANS/WP.29/776, paras. 22 and 23).

58. GRPE supported clearly the initiative by Germany in developing the Regulations, although it found it difficult to do the work directly. It was noted that the relevant expertise was not readily available and, besides that, GRPE would not be able to complete the projects of both Regulations within reasonable time. To resolve the question, it was proposed to form an informal group, under the German leadership, and entrust it with the work on the both projects. Already at the session, the experts from France, Italy, Netherlands, Russian Federation, United Kingdom, ISO, OICA and ENGVA expressed interest. The expert from Canada also indicated interest in participation, although asking for time to consult on the subject with his Government. The expert from Germany accepted the invitation to appoint a Chairman to this informal group.

59. The Chairman of GRPE agreed to convey the decision to WP.29 at its June 2001 session, and ask for the endorsement. (Note by the secretariat: WP.29 endorsed the proposal - see TRANS/WP.29/792, para. 78.)

(d) Round-table "New vehicle propulsion technologies"

Documentation: Informal document No. 16 of annex 1 to this report.

60. The Chairman of GRPE recalled that, during the one-hundred-and-twenty-third session, WP.29 had accepted the invitation by the Inland Transport Committee to organize the above-mentioned Round Table, to be held, back-to-back with the sixty-fourth session (19-21 February 2002) of the Inland Transport Committee, (TRANS/WP.29/792, paras. 5 and 6). He explained that GRPE should be in charge, and presented his proposal for the programme of the half-day event (informal document No. 16).

61. The experts from OICA and CLEPA confirmed their willingness to assist GRPE. The experts from AECC and CONCAWE also accepted the invitation. It was agreed that OICA and CONCAWE should coordinate the selection of topics and speakers for the two respective panels, and the secretariat was requested to prepare official letters addressed to both organizations.

62. GRPE endorsed the proposal of its Chairman for a coordination meeting, to be held in Paris at the end of October 2001, where the final programme of the round-table would be agreed and details considered with the presence of the representatives of the above-mentioned organizations and the secretariat. It was also agreed that in January 2002, during the forty-third session, GRPE would receive a detailed report about the preparatory work and the programme. (Note by the secretariat: The approach taken by GRPE was endorsed by WP.29 during its one-hundred-and-twenty-fourth session - see TRANS/WP.29/792, para. 31).

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

Documentation: Informal document No. 8 of annex 1 to this report.

63. The expert from the Russian Federation introduced the proposal (informal document No. 8) for Corrigendum 1 to the 05 series of amendments to Regulation No. 83, and provided the justifications. GRPE accepted the proposal and agreed that it should be transmitted to WP.29 and AC.1 for consideration at their sessions of November 2001. As a precaution, the expert from the European Community was asked to verify the proposal with respect to EC Directive 98/69/EC.

REGULATION No. 103 (Replacement catalytic converters)

Documentation: Informal document No. 19 of annex 1 to this report.

64. The expert from Poland introduced his proposal (informal document No. 19) and provided its justifications. He said that Regulation No. 103 is known for some interpretation difficulties and needed at least the proposed corrections. The expert from CLEPA confirmed that some difficulties existed and were known.

65. During the discussion, the experts from the Russian Federation, AECC and OICA, volunteered to cooperate on updating the technical provisions of the Regulation. GRPE accepted their proposal and agreed in principle to consider their joint proposal at its next session, in January 2002, if available.

ELECTION OF THE OFFICERS

66. Following the announcement by the Secretary on Tuesday, 29 May 2001 and in compliance with Rule 13 of the Rules of Procedure (TRANS/WP.29/690), GRPE called the election of officers on Wednesday, 30 May 2000. GRPE re-elected Mr. B. Gauvin (France) Chairman for the two sessions scheduled for the year 2002.

AGENDA FOR THE NEXT SESSION

67. For its forty-third session, GRPE agreed to continue to provide time for three half-day meetings of the WHDC, WMTC and PMP informal meetings. The Chairmen of the informal working groups were invited to confirm the schedule of the informal meetings with the secretariat, well before the 10-week deadline (5 November 2001), applicable for the publication of the session agenda. The secretariat explained that additional meeting time could be provided if needed, however, without the simultaneous interpretation.

68. The following agenda for the forty-third session of GRPE (Geneva, Palais des Nations, from Tuesday 15 January 2001, 14.30 h until Friday 18 January 2001, 12.30 h) is being proposed by the secretariat:

(a) Informal meeting of the GRPE working group on the world-wide heavy-duty certification procedure (WHDC)

To be held on Tuesday, 15 January 2001, from 14.30 h till 17.30 h. The agenda of the meeting will be prepared and distributed by the WHDC secretariat to the members of the WHDC group prior to the meeting.

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

To be held on Wednesday, 16 January 2001, from 9.30 h till 12.30 h. The agenda of the meeting will be prepared and distributed by the WMTC secretariat to the members of the WMTC group prior to the meeting.

(c) Informal meeting of the GRPE Particle Measurement Programme (PMP)

To be held on Wednesday, 16 January 2001, from 14.30 h till 17.30 h. The agenda of the meeting will be prepared and distributed by the PMP secretariat to the members of the PMP group prior to the meeting.

(d) Forty-third session of the GRPE proper

To be held on Thursday, 17 January 2001, from 9.30 h until Friday, 18 January 2001, 12.30 h. 1/:

1. Regulation No. 49 (Emissions of C.I., NG, and P.I.(LPG) engines)
  - 1.1. Development of the emission testing procedure (WHDC)
  - 1.2. On-board diagnostics for heavy-duty vehicles
2. Particle Measurement Programme (PMP)
3. Development of a worldwide motorcycle emission test cycle (WMTC)
4. Amendments to ECE Regulations
  - 4.1. Regulation No. 67 (Equipment for LPG)
  - 4.2. Regulation No. 96 (Off-road engines)
  - 4.3. Regulation No. 101 (Emissions of carbon dioxide and fuel consumption of M1 and N1 vehicles)
  - 4.4. Regulation No. 103 (Replacement catalytic converters)
  - 4.5. Regulation No. 110 (Specific components for CNG)
5. Replacement catalytic converters for vehicles with OBD
6. Application of ECE Regulations to hybrid vehicles
7. Hydrogen-fuelled vehicles
8. Power of engines intended to be fitted on non-road mobile machinery and agricultural tractors
9. Exchange of information on national and international requirements on emissions 2/
10. Other business
  - 10.1. Round-table "New vehicle propulsion technologies"
  - 10.2. Evolution of fuel quality

1/ As part of the secretariat's efforts to reduce expenditure, all the official documents distributed prior to the session, by mail and/or placed on the website, 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. (The WP.29 website address is: <http://www.unece.org/trans/main/welcwp29.htm> , select GRPE and find "working documents").

2/ Delegations are invited to submit brief written statements on the latest status in national requirements and, if necessary, to supplement this information orally.

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Annex 1

LIST OF INFORMAL DOCUMENTS DISTRIBUTED WITHOUT A SYMBOL DURING THE SESSION

No.	Transmitted by	Agenda item	Language	Title
1.	United Kingdom	2.	E	Programme overview: GRPE Particle Measurement Programme (PMP)
2.	WHDC group	1.1.	E	Development of a Worldwide Harmonised Heavy-Duty Engine Emissions Test cycle: Final Report
3.	Italy	8.	E	Application of ECE Regulations to Hybrid Vehicles (comments to TRANS/WP.29/GRPE/2001/1)
4.	Italy	10.	E	Proposal for a draft Regulation concerning the measurement of the net power of non-road engines - Amendment 1 to document TRANS/WP.29/GRPE/2001/4
5.	Belarus	9.	E/R	Proposal for draft amendments (Corrigendum 1 to the 01 series) to Regulation No. 96
6.	Canada	2.	E	Laser-Induced Incandescence Instrument as Tool for Measuring Exhaust Particulates
7.	CONCAWE	12.1.	E	Evolution of Fuel Quality
8.	Russian Federation	12.5.	E	Proposal for a Corrigendum to the 05 series of amendments to Regulation No. 83, including draft Supplement 1 and draft Supplement 2
9.	European Commission	12.1.	E/F	Proposal for a Directive of the Eur.Parliament and of the Council on the quality of petrol and diesel fuels and amending Directive 98/70/EC Brussels 11.5.2001, (COM(2001)241 final
10.	European Commission	11.	E	Current and Future European Community Emission Requirements (May 2001)
11.	Germany	12.3.	E	Hydrogen-fuelled vehicles
12.	OICA	6.	E	Regulation No. 67 (comments on TRANS/WP.29/GRPE/2001/8)
13.	France	5.	E	Proposal for draft amendments (Supplement 5) to the 02 series of amendments to Regulation No. 101
14.	France	8.	E	Application of UN/ECE Regulations to hybrid vehicles
15.	France	8.	E	Proposal of mandate for an ad hoc working group on hybrid vehicles (HEV'S)
16.	Chairman of GRPE	12.4.	F	Projet d'organisation de la table ronde (demi-journée) "Nouvelles technologies de propulsion des véhicules"
17.	ENGVA	4.	E	Proposal for a Corrigendum to Regulation No. 110

No.	Transmitted by	Agenda item	Language	Title
18.	ENGVA	4.	E	Dual fuel (Natural gas/Diesel) engines: operation, applications & contribution
19.	Poland	12.6.	E	Proposal for draft amendments to Regulation No. 103
20.	ENGVA	4.	F	Proposition de corrigendum au Règlement No 110
21.	United States of America	11.	E	Update of United States Regulatory Activities
22.	Russian Federation	4.	E/R	Proposal for draft Supplement to Regulation No. 110
23.	Netherlands	8.	E	Certification procedures for innovative technologies in light duty vehicles
24.	Netherlands	6.	E	Proposal for a Supplement to UN/ECE Regulation No. 67-01 (Equipment for LPG) with a view to introduce specific requirements for type-approval of all-composite LPG containers
25. and 25bis	AEGPL	6.	E	Proposal for draft Supplement 2 to the 01 series of amendments to Regulation No. 67
-	WHDC group	1.1.	E	World-wide Reference Steady State Cycle (WHSC) - excerpt from the presentation by Mr. H. Steven, WHDC group

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Annex 2

TERMS OF REFERENCE OF A GRPE INFORMAL GROUP ON HYBRID VEHICLES (HEV'S),  
ADOPTED BY GRPE AT ITS FORTY-SECOND SESSION

1. General definition of hybrid vehicles (HEV's)  
Scope limited in a first step to M1 and N1 vehicles
  2. Identification and definitions of categories of hybrid vehicles  
Scope limited in a first step to vehicles fitted with electrical / thermal engines
  3. Identification of the necessary amendments to existing ECE Regulations, and the responsible subsidiary bodies of WP.29 (GR's)
  4. Measurement of fuel consumption, electric energy consumption and the questions concerning CO<sub>2</sub> emissions.
  5. Overview of the difficulties in measuring HEV's, e.g.:  
Driver selectable modes;  
Distinction between charge-depleting and charge-sustaining HEV's;  
Regenerative braking on the roller bench;  
Four-wheel drive vehicles;  
Pre-conditioning the battery;  
Effects regarding the durability of the battery, (energy losses ....)
  6. Drafting of the amendments to ECE Regulations
  7. Timetable  
First intermediate report in January 2002: presentation to GRPE for agreement on definitions, categories of HEV's and priorities for amendments to ECE Regulations;  
Second intermediate report in January 2003: presentation to GRPE of the proposals for amendments to ECE Regulations;  
Final report to GRPE in January 2004.
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