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INLAND TRANSPORT COMMITTEE

Working Party on the Construction of Vehicles

Meeting of Experts on Pollution and Energy

REPORT OF THE MEETING OF EXPERTS ON POLLUTION AND ENERGY  
ON ITS THIRTY-THIRD SESSION  
(13 - 15 January 1997)

ATTENDANCE

1. The Meeting of Experts on Pollution and Energy held its thirty-third session from 13 January (afternoon) to 15 January (morning) 1997 under the chairmanship of Mr. B. Gauvin (France). Experts from the following countries participated in the work: Austria; Belgium; Czech Republic; Denmark; Finland; France; Germany; Greece; Hungary; Italy; Netherlands; Norway; Poland; Romania; Russian Federation; Slovenia; Spain; Switzerland; United Kingdom; United States of America. Experts from the European Commission (EC) also participated. A representative of the International Road Traffic Organization (IRTO) took part in the session. Representatives of Japan participated in the session under paragraph 11 of the Commission's Terms of Reference. Experts from the following non-governmental organizations also participated: International Organization for Standardization (ISO); International Touring Alliance/International Automobile Federation (AIT/FIA); International Road Transport Union (IRU); International Organization of Motor Vehicle Manufacturers (OICA); International Motorcycle Manufacturers Association (IMMA); Liaison Committee for the Manufacture of Automobile Equipment and Spare Parts (CLEPA); Automobile Emissions Control by Catalysts (CEFIC/AECC); The Oil Companies' European Organization for Environment, Health and Safety (CONCAWE); Association européenne des gaz de pétrole liquifiés (AEGPL); European Natural Gas Vehicle Association (ENGVA); International Motor Vehicle Inspection Committee (CITA).

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2. Prior to the session, in the morning on 13 January 1997, an informal meeting of the ad hoc group on the development of an emission testing procedure for heavy duty engines was held, under the chairmanship of Mr. M. Dunne (United Kingdom). Experts from the following countries and non-governmental organizations participated in the work: Belgium; Czech Republic; Denmark; France; Germany; Hungary; Italy; Japan; Poland; Sweden; Switzerland; United Kingdom; United States of America; International Organization of Motor Vehicle Manufacturers (OICA).

REGULATION NO. 49 (Emissions of compression-ignition engines)

(a) Development of the emission testing procedure

Documentation: Informal documents Nos. 4, 7 and 8 of the annex to this report 1/.

3. The Chairman of the ad hoc group informed the Meeting of Experts of the outcome of the ad hoc group informal meeting (see paragraph 2 above) and introduced a draft revision of Regulation No. 49 as set out in an informal document No. 7 put forward by the ad hoc group. He said that a similar document had been sent to the European Commission. Both documents contained new test cycles known as the:

- steady state cycle;
- transient cycle; and
- load response cycle.

4. The ad hoc group proposed that all engines should be tested on the ESC and ELR but for diesel engines fitted with advanced emission control after treatment systems the ETC should be required in addition. Emission limit values were not included but correlation values were provided to allow single emission limits to be used for both cycles.

5. He further informed the Meeting of Experts of the intention of OICA to submit two additional annexes regarding an example of calculation procedure (annex 7) and a keyword index (annex 8). Consideration was also being given by the ad hoc group to measurement instruments for gas engines and it was hoped that these could be completed for the next WP.29/GRPE meeting.

6. Finally, he reported that the engine family concept had not been included in the draft and asked the Meeting of Experts to consider this matter. A similar proposal had been submitted by the ad hoc group to the European Commission.

7. The Meeting of Experts congratulated the ad hoc group on completion of its work on the revision of technical annexes of Regulation No. 49 as set out in informal document No. 7 and agreed to hold a detailed discussion of the ad hoc group proposal at its thirty-fourth session. To this purpose the Meeting decided to invite experts participating in its work to submit to the secretariat, if possible, by 15 March 1997 their comments and proposals regarding informal document No. 7. It was felt that this informal document should remain to be used as a working document and the experts were invited to retain their copies for consideration at the next session of the Meeting of Experts.

8. The Meeting agreed that the question of emission limit values should be dealt with at a political level (both within UN/ECE and European Union) while the gas engines emissions should be taken up by WP.29/GRPE as its next step.

9. The expert from France reserved the position of his Government regarding the draft revision prepared by the ad hoc group, being of the opinion that for the time being there was no need for the test procedure to be carried out with the use of two different test cycles. In his opinion this complication did not provide any tangible benefits for the reduction of emissions of compression ignition engines.

10. The Meeting of Experts continued the discussion on possible world-wide harmonization of a heavy-duty engine emission test cycle on the basis of informal document No. 4 submitted by OICA.

11. A very large number of experts spoke in favour of the development of a world-wide harmonized emission test cycle. It was pointed out that such a cycle should provide for reduction of negative impacts of heavy-duty engine emissions on the environment and health, and reflect real driving patterns of vehicles in use.

12. Finally, it was agreed to create a "brainstorming group" (BSG) which could be convened just prior to the thirty-fourth session of WP.29/GRPE (starting at 9.30 a.m. on 9 June 1997) for the consideration of possible approaches to world-wide test cycle harmonization. The Dutch expert was invited to head the BSG and organize the meeting by privately contacting delegates and preparing a discussion paper which should

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1/ Complete list of informal documents presented at the current session appears in the annex to this report.

reflect, in particular, the priority tasks of the BSG and ways and means for developing a world-wide harmonized test cycle for heavy duty compression-ignition engines.

(b) Emission of NG-fuelled engines in motoring mode

Documentation: TRANS/WP.29/GRPE/R.265.

13. Noting that no comments had been received so far on the above-mentioned proposal submitted by the European Commission, the Meeting of Experts agreed to delete this item from its agenda, being of the opinion that the question of NG-fuelled engine emissions in motoring mode would be addressed within both the current revision of Regulation No. 49 and within the development of the new emission testing procedure (Euro 3, see paras. 3-12 above).

(c) Approval of vehicles equipped with LPG- and NG-fuelled engines

Documentation: TRANS/WP.29/GRPE/R.275; informal documents Nos. 11 and 13 of the annex to this report.

14. The expert from the Netherlands introduced document TRANS/WP.29/GRPE/R.275 containing a proposal for draft amendments to Regulation No. 49, regarding the approval of vehicles equipped with engines fuelled with liquefied petroleum gas (LPG) or natural gas (NG). He pointed out that, heavy duty vehicles, in contrast with M1 and N1 light duty ones, were less adaptable to different fuels and therefore the range of reference gas fuels for this category of vehicles should be limited. He further indicated that the question as to whether parent gas engines of heavy duty vehicles should be tested for both FIGE and OICA test cycles was, still under consideration. He offered to prepare a final version of the draft if the Meeting of Experts would agree with the approach of his paper.

15. An expert from OICA informed WP.29/GRPE of the view of the small ad hoc group of experts on gaseous fuels set up at the thirty-first session (TRANS/WP.29/GRPE/31, paras. 32 and 33) that it was of primary importance to find such a solution regarding test procedure for heavy-duty vehicles equipped with gas engines which would encourage their promotion and wider use because of their relatively high environmental performance.

16. One expert from the European Commission expressed his support to the proposal of the Dutch expert suggesting, however, that in order to ensure that a full range of flexibility needed from the engine management system be tested, the range of reference natural gases could be extended from G25 to G21 as indicated in informal document No. 11 submitted by the EC.

17. The expert from Poland noted that TRANS/WP.29/GRPE/R.275 did not provide for the coverage of the whole range of LPG available in the European market and, in particular, in Poland where the share of propane in LPG constitutes only 25% - 30%. He suggested that either the range of reference LPG fuels should be extended or a provision be introduced into the draft allowing future Contracting Parties not to recognize engine approvals if they do not cover gaseous fuels available in their countries. He also noted that the reference NG fuels proposed by the Netherlands only covered the lean range of G20 - G25 fuels with the air excess ratio  $p = 1.0 - 1.16$  and ignored the rich side fuels having a greater emission impact. In his opinion, reference NG fuels should provide for coverage of an air excess ratio  $p = 0.83 - 1.2$ .

18. The expert from France introduced informal document No. 13 and expressed a view that the approach taken in TRANS/WP.29/GRPE/R.275 could be simplified. He suggested that a possibility be studied with a view to aligning the philosophies of the two papers.

19. The expert from the United Kingdom suggested that the test procedure for gaseous engines of heavy-duty vehicles should be limited to the FIGE test cycle only. The representative of EC shared this view but felt that the decision should be postponed until correlation data on the FIGE/OICA cycle were available. This proposal by the United Kingdom was not acceptable to the delegation of the Russian Federation.

20. The Meeting of Experts agreed to come back to this item at its thirty-fourth

session hoping to have by then the first results of the work carried out within the European Commission.

PREPARATION OF THE 1997 REGIONAL CONFERENCE ON TRANSPORT AND THE ENVIRONMENT

(a) Conference preparation

Documentation: ECE/RCTE/PC/64.

21. The Meeting of Experts was informed orally by a member of the secretariat on major results of the Preparatory Committee's work since the thirty-second session of WP.29/GRPE and took note of the information.

(b) Construction requirements on vehicles in international traffic

Documentation: TRANS/WP.29/R.748/Rev.1 - TRANS/SC.1/WP.1/R.137/Rev.1.

22. It was recalled that, at its thirty-third session, the Meeting of Experts adopted the text of the draft amendments to the 1971 European Agreement supplementing the 1968 Vienna Convention subject to the further consideration of the implementation problems indicated by the expert from Poland, the reservation entered by the expert from the Russian Federation and the position expressed by the expert from France (TRANS/WP.29/GRPE/32, para. 26).

23. The Meeting of Experts was informed that the text of the draft amendments had been presented for consideration by the Working Party WP.29 at its one-hundred-and-tenth session, accompanied with an alternative proposal prepared by the expert from Poland with a view to removing the objections mentioned in paragraph 21 above (TRANS/WP.29/516, paras. 84-86). The final proposal for draft amendments adopted by WP.29 (TRANS/WP.29/R.748/Rev.1 - TRANS/SC.1/WP.1/R.137/Rev.1) and based on the alternative text was then transmitted to the Preparatory Committee for consideration at its twelfth session (16-18 December 1996). It was pointed out, in particular, that the final proposal provides for: (i) motor vehicles in international traffic to comply with relevant ECE Regulations "at the date of their first registration after manufacture"; (ii) such vehicles to be used in international traffic "within ten years from the date of their first registration after manufacture", and (iii) a transition period of [2] years following the entry into force of the amendments.

24. The expert from the Russian Federation suggested that with a view to easing possible economic implications of entering into force of the above-mentioned amendments, consideration should be given to extending the transitional period from two to five years.

25. The Meeting of Experts took note of the above developments and felt that it had completed its work on this item, believing also that further consideration of the text of amendments, including the provision on a transitional period and other items left by the Working Party WP.29 in square brackets, should be undertaken by the Preparatory Committee in cooperation with the Working Party on Road Traffic Safety and by the Conference itself.

(c) Technical requirements for vehicles in use

Documentation: TRANS/WP.29/R.764/Rev.1 - TRANS/SC.1/WP.1/R.138/Rev.1.

26. It was recalled that the Meeting of Experts, at its thirty-second session, had approved the proposal for an annex to a new draft legal instrument intended to introduce the mutual recognition of periodic technical inspections related to environmental performance of vehicles in international traffic, and invited the experts from Germany to complete the parts related to safety of vehicles, as well as other outstanding items (TRANS/WP.29/GRPE/32, paras. 27-29).

27. The Meeting of Experts was orally informed by a member of the secretariat that the Working Party WP.29, at its one-hundred-and-tenth session, had considered the intention of the Preparatory Committee to limit in the first step approach the scope of the new legal instrument for periodic technical inspections of vehicles to environmental performance only, but decided to transmit to the Preparatory Committee a complete set of technical provisions developed by the experts from Germany, in order to enable the Preparatory Committee to evaluate the technical part of the

document as a whole (TRANS/WP.29/516, paras. 87-90). The consolidated text of the document (TRANS/WP.29/R.764/Rev.1 - TRANS/SC.1/WP.1/R.138/Rev.1) was then transmitted to the Preparatory Committee at its twelfth session and was currently being finalized by the secretariat, with the help of a consultant, for consideration and adoption by the Preparatory Committee.

28. The Meeting of Experts took note of the above information and decided to delete this item from its agenda for the thirty-fourth session.

#### PERSPECTIVES IN TRANSPORT AND THE ENVIRONMENT

##### (a) Technical requirements for vehicles after the year 2000

29. The expert from the European Commission informed the Meeting that on 18 June 1996 the Commission had adopted a first package of proposed emission reduction measures for the year 2000, based on the results of the "Auto-Oil Programme". The proposed measures aim at a Directive on specifications for motor fuels (petrol and diesel) and on a Directive relating to the emission of passenger cars.

30. The measures relating to passenger cars consist essentially of stricter permissible emission limits for the year 2000 and of indicative values for the year 2005 based on the modified European test cycle, of improved evaporation test conditions, of requirements aiming at the introduction of on-board diagnostic systems (OBD) and of the introduction of provisions allowing the control of conformity of vehicles in use with extended durability requirements. He informed the Meeting of Experts that the discussions on these proposals in the decision-making institutions of the Community, i.e. the Council of Ministers and the European Parliament had started, but were still at an early stage.

31. During the first half of 1997, this package of measures would be completed by proposals relating to light and heavy duty vehicles and later by a proposal relating to enhanced periodic inspections. He offered to make relevant documentation in English and French available to experts who wished to get acquainted with the text of the package adopted by the Commission.

##### (b) Reductions of carbon dioxide emissions and fuel consumption

32. The expert from the European Commission confirmed that his institution did not currently consider a regulatory approach to this matter, but was negotiating a voluntary commitment of the automobile industry for lowering the fuel consumption of the cars they produce.

33. The Meeting of Experts took note of the above information and agreed to revert to this matter at its thirty-fourth session.

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

(a) Regulation No. 67 (Equipment for liquefied petroleum gas)

Documentation: TRANS/WP.29/GRPE/R.267; TRANS/WP.29/GRPE/R.276.

34. The expert from the Netherlands presented document TRANS/WP.29/GRPE/R.267 prepared by him in order to incorporate into Regulation No. 67 provisions for the installation of LPG equipment in vehicles. He explained that the document had been drafted as a revised Regulation No. 67 and was supposed to update the existing text of the Regulation with regard to modern technology. He also noted that the text of the document should be completed with provisions concerning safety and fuel consumption.

35. A representative of OICA suggested that document TRANS/WP.29/GRPE/R.267 be considered in conjunction with the proposal of the expert from Italy, regarding the equipment of motor vehicles using compressed natural gas (CNG) in their propulsion system (TRANS/WP.29/GRPE/R.269), appearing under agenda item 4.5. below (see paras. 57 and 58 below).

36. The expert from Italy informed the Meeting of Experts that both proposals, on LPG and CNG equipment, had been prepared in close cooperation between himself and the expert from the Netherlands as far, in particular, as the container and safety valve were concerned. He supported the proposal as set out in TRANS/WP.29/GRPE/R.267 noting, however, that consideration was currently being given to increasing the value of the maximum operating pressure from 25 to 30 bars in order to take account of possible overpressure in the CNG container under the sun heating.

37. An expert from Germany drew the attention of the Meeting of Experts to the comparison between the Dutch proposal (TRANS/WP.29/GRPE/R.267) and CEN standards, as reflected in the AEGPL documents (TRANS/WP.29/GRPE/R.276).

38. The Meeting of Experts was informed that within the EC the framework directive on ECE tyre approval, with implications on LPG fitted cars, was to come into force already on 1 January 1998 and it was felt therefore that a revision of Regulation No. 67 should be completed as soon as possible.

39. It was agreed that the experts from the Netherlands, Italy and the AEGPL should, in cooperation with appropriate standardization organizations, consider document TRANS/WP.29/GRPE/R.267 and prepare by mid- March 1997 at the latest a corrigendum to it, which would take into account, in particular, the discrepancies identified by AEGPL. TRANS/WP.29/GRPE/R.267 and Corr.1 should then be transmitted to the Working Party WP.29 and to the Administrative Committee AC.1 for consideration at its sixth session (June 1997). The Meeting of Experts would have, however, a possibility to comment on the draft again at its thirty-fourth session.

40. An expert from the United Kingdom reserved the position of his Government with regard to the above-mentioned decision of the Meeting of Experts and said that his delegation might come back to this matter at the one-hundred-and-twelfth session of the Working Party (24-27 June 1997).

(b) Regulation No. 83 (Emissions of M<sub>1</sub> and N<sub>1</sub> categories of vehicles)

Documentation: TRANS/WP.29/GRPE/R.271; TRANS/WP.29/GRPE/R.272; informal documents Nos. 2, 3, 6 and 11 of the annex to this report.

41. It was recalled that, at its thirty-first session, the Meeting of Experts had considered an informal document prepared by the expert from the Netherlands and had agreed to set up a small ad hoc group of experts which was to review the range of gaseous fuels available throughout Europe and to propose possible ways for addressing their differing specifications in ECE Regulations (TRANS/WP.29/GRPE/31, paragraphs 32 and 33).

42. The Chairman of the ad hoc group Mr. M. Mormile (OICA), reported on the completion of work by the ad hoc group and said that TRANS/WP.29/GRPE/R.272 represented the result of the group's endeavour. He called upon the Meeting of Experts to consider the question of motor vehicles equipped with engines fuelled with

LPG or NG with the understanding that gas vehicles are environmentally beneficial and that administrative procedures for their approval should not therefore be excessively severe especially at an initial stage.

43. The expert from Switzerland introduced the report by the Swiss Federal Laboratories for Materials Testing and Research (EMPA) on the equipment for the measurement of NG gas vehicles. He suggested that a provision should be introduced into Regulation No. 83 providing for the elimination of water condensation during the testing of NG vehicles as indicated in informal document No. 3.

44. The expert from the European Commission recalled his proposal as set out in para. 16 above regarding the range of reference NG fuels for testing heavy duty engines and said that this proposal was also relevant in the case of Regulation No. 83.

45. The expert from Germany offered to check the value of a numerator in a formula mentioned in para. 1.3. of appendix 8 to annex 4 of the Dutch proposal for LPG (TRANS/WP.29/GRPE/R.272). The expert from the Netherlands explained that the numerator 12.0 in the formula in question stood for a  $C_3/C_4$  ratio equal to 50/50 and that he would be grateful if an additional analysis of the matter could be carried out by German experts.

46. The expert from France believed that the proposal as set out in TRANS/WP.29/GRPE/R.272 should be presented in a form of a new Regulation on gaseous fuels rather than in a form of an amendment to Regulation No. 83, as proposed by AEGPL in TRANS/WP.29/GRPE/R.271.

47. The Meeting of Experts invited experts to submit their written proposals regarding possible improvements of document TRANS/WP.29/GRPE/R.272. These proposals should reach the expert from the Netherlands (Mr. C. Havenith) by 15 February 1997 at the latest. In formulating a corrigendum to TRANS/WP.29/GRPE/R.272, Mr. Havenith was requested to give particular consideration to the proposal of the EC expert mentioned in para. 44 above. It was decided to transmit document TRANS/WP.29/GRPE/R.272 together with the corrigendum to be established by the expert from the Netherlands to the Working Party WP.29 and to the Administrative Committee AC.1 for consideration at its sixth session (June 1997). The Meeting of Experts would nevertheless have a possibility for another exchange of views on this item at its thirty-fourth session.

(c) Regulation No. 85 (Measurement of the net power)

Documentation: TRANS/WP.29/GRPE/R.246; TRANS/WP.29/GRPE/R.273.

48. The Meeting of Experts considered the proposal of the expert from the Netherlands concerning the introduction into Regulation No. 85 of requirements for vehicles equipped with engines fuelled with LPG or NG as set out in TRANS/WP.29/GRPE/R.273 and decided to amend it, as indicated below. It was also agreed to transmit the amended document to the Working Party and to the Administrative Committee AC.1 for consideration at its sixth session (June 1997).

Paragraphs 5.2.3.3.2. and 5.2.3.3.3., amend to read:

"5.2.3.3.2. In the case of an engine without self-adaptive fuelling:  
The fuel used shall be one available on the market with a Wobbe index not higher than  $45.5 \text{ MJm}^{-3}$  (20 pC, 101.3 kPa). In case of a dispute the fuel used shall be the reference fuel G25 specified in annex 8, i.e. the fuel with the lowest Wobbe index, or

5.2.3.3.3. In the case of an engine labelled for a specific range of fuels: The fuel used shall be one available on the market with a Wobbe index not higher than  $50.0 \text{ MJm}^{-3}$  (20 pC, 101.3 kPa) if the engine is labelled for the H-range of gases, or not higher than  $45.5 \text{ MJm}^{-3}$  (20 pC, 101.3 kPa) if the engine is labelled for the L-range of gases. In case of a dispute the fuel used shall be the reference fuel G23 specified in annex 8 if the engine is labelled for the H-range of gases, or the reference fuel G25 if the engine is labelled for the L-range of gases, i.e. the fuel with the lowest Wobbe index for the relevant range, or."

(d) (Draft) Regulation on CO<sub>2</sub> emissions and fuel consumption of passenger

cars 2/

Documentation: TRANS/WP.29/GRPE/R.247; TRANS/WP.29/GRPE/R.274.

49. The Meeting of Experts considered the proposal of the expert from the Netherlands concerning the introduction into the above-mentioned Regulation of requirements for vehicles equipped with engines fuelled with LPG or NG as set out in TRANS/WP.29/GRPE/R.274, it was noted that this replaced the former proposal of TRANS/WP.29/GRPE/R.247.

50. It was decided that paragraph 5.2.4.(a) should be modified so that the density of NG fuels used represented an arithmetical mean of the density of G20 and G25 fuels, i.e.  $0.714 \text{ kg/m}^3$ . In annex 5, paragraph 1.5.2.(b) a misprint in the first formula of  $FC_{\text{norm}}$  should be corrected i.e. 0.212 should read 0.1212.

51. An expert from the European Commission proposed the following amendments to the Regulation to be inserted into TRANS/WP.29/GRPE/R.274, subject to clarification with the expert from the Netherlands:

Paragraph 5.2.4., amend to read:

"5.2.4. The appropriate reference fuel as defined in annex 9 of Regulation No. 83 must be used for testing. For LPG and natural gas (NG) either of the specified reference fuels may be used. The chosen fuel must be specified in the communication document as defined in Annex 2..."

Annex 2,

Insert a new item 6.5.4., to read:

"6.5.4. In the case of NG fuelled vehicles, reference fuel used for the test (eg. G20, [G21] or G25) . . . . ."

Items 6.5.4. to 6.5.6.(former), renumber as items 6.5.5. to 6.5.7.

52. The Meeting of Experts agreed to transmit document TRANS/WP.29/GRPE/R.274 as amended in paragraphs 50 and 51 above to the Working Party WP.29 and to the Administrative Committee AC.1 for consideration at its sixth session (June 1997).

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

Documentation: TRANS/WP.29/GRPE/R.269; informal document No. 9 of the annex to this report.

53. The expert from Italy introduced document TRANS/WP.29/GRPE/R.269 containing the proposal mentioned above. He pointed out, in particular, that the document had been carefully aligned with the proposal of the expert from the Netherlands (TRANS/WP.29/GRPE/R.267) concerning the incorporation into Regulation No. 67 of provisions on LPG equipment. He also indicated that the document he had prepared was still to be completed with Part III on installation requirements for retrofitted vehicles.

54. The expert from the Netherlands believed that the question of requirements for retrofitted vehicles was extremely important for both LPG and CNG converted vehicles and that therefore a separate document should be prepared on this subject.

55. A number of experts supported in principle the draft prepared by the expert of Italy indicating, however, that it would be very useful to know where his proposal essentially departed from that contained in document TRANS/WP.29/GRPE/R.267.

56. The representative of ISO informed the Meeting of Experts of the work currently under way in his organization on the item in question.

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2/ Note by the secretariat:

Regulation No. 101, entry into force on 1 January 1997 (being prepared for publication; for the text of the Regulation see document TRANS/WP.29/434).



57. The expert from Italy offered to try to establish by the next session of WP.29/GRPE, in consultation with the expert from the Netherlands, a new draft instrument on requirements for the installation of LPG and CNG equipment on retrofitted vehicles.

58. Finally, the Meeting of Experts expressed its gratitude to the expert of Italy for the preparation of the above proposal, took note of informal document No. 9 submitted by Hungary and invited delegations to submit to the secretariat their written comments and proposals on TRANS/WP.29/GRPE/R.269. The Meeting of Experts agreed to take up the matter again at its thirty-fourth session.

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

Documentation: Informal documents Nos. 1, 5, 10, 12, 14 and 15 of the annex to this report.

59. The following information was given:

European Union (EU) countries: Two new Directives were adopted in the EU in 1996 amending Directive 70/220/EEC (informal documents Nos. 14 and 15).

The Meeting of Experts noted the information and invited the experts from France and the United Kingdom to prepare a proposal for amending Regulation No. 83 in order to align it with these EU Directives (96/44/EC and 96/69/EC, see para. 60 below).

Austria: EU followed, Directives 96/44/EC and 96/69/EC shall be implemented by the end of January 1997.

Belgium: EU followed.

Czech Republic: The rules for the import of used cars contained in the road code were temporarily revised; the road code update is expected in 1998.

Denmark: There are 2 new proposals of economic incentives:

- (a) To change the system of annual taxation of passenger cars and base it on CO<sub>2</sub> emissions;
- (b) To tax petrol on the basis of benzene content in order to reduce it below 1 per cent.

Finland: No information.

France, Germany, Greece: EU followed.

Hungary: New requirements concerning fuel composition and properties entered into force on 1 January 1997 (informal document No. 10):

- (a) The benzene (benzol) content of an unleaded gasoline is reduced from 3% (Vol) to 2% (Vol) in accordance with national standard MSZ 11793 which is in harmony with EU standard EN 228;
- (b) The sulphur content of the diesel fuel is reduced from 0.2% (Mass) to 0.05% (Mass) in accordance with national standard MSZ 1627 which is in harmony with Directive 93/12/EU. The value of the cold filtering feature (CFPP) of diesel fuels for a cold season (winter) is modified at the same time from -12°C to -15°C.

Italy: EU followed. An economic incentive was introduced aimed at replacing cars older than 10 years. Information will be made available at the next session on real use of vehicles in large cities (Naples).

Japan: The Ministry of Transport plans a revision of the Safety Regulations for Road Vehicles, concerning motor vehicle exhaust emissions. The requirements on CO, HC, No<sub>x</sub>, PM and smoke emissions are envisaged to be considerably tightened (by 38% to 80%). Values of the target emission limits and a schedule of the revision are outlined in informal document No. 5.

Netherlands: EU followed. Preparing to implement in-use test of emissions, including also diesel-fuelled vehicles.

Norway, Poland: No new information.

Romania: National type approval regulations are being reviewed, all should be aligned with the ECE by the year 2001.

Russian Federation: ECE Regulations are applied in the Russian Federation as follows (informal document No. 12):

Regulation No. 49:  
Regulation No. 49-02 (A) is applied until 1 January 1999;  
Regulation No. 49-02 (B) will be applied as from 1 January 1999;

For temporary type approvals (i.e. for a period not longer than one year) Regulation No. 49-01 is applied until 1 January 1998 and after that date Regulation No. 49-02 (A) will be applied for this purpose.

Regulation No. 83  
(i) Road vehicles with compression ignition engines:  
Regulation No. 15-04 is applied until 1 July 1997;  
Regulation No. 83-02 (C) will be applied after 1 July 1997.

(ii) Road vehicles with petrol engines:  
Regulation No. 83-02 (A) is applied until 1 January 1999;  
Regulation No. 83-02 (B) will be applied after 1 July 1999.

Regulation No. 51  
Regulation No. 51 and national requirements are applied until 1 July 1997;  
Regulation No. 51-01 and national requirements will be applied after 1 July 1997;  
Regulation No. 51-02 will be applied after 1 January 1999.

Slovenia: No new information.

Spain: EU followed.

Switzerland: No new information.

United Kingdom: EU followed. In-use emissions tested regularly (introduced 1.1.1996, re-implemented after some difficulties were experienced with diesel-fuelled vehicles); petrol-fuelled vehicles with catalyzers subject to these tests as from 1.1.1997.

United States of America: The following emission related information was conveyed:  
An advance notice rule was published for on-highway heavy-duty engines;  
A summary statement was prepared for off-highway engines;  
The recreation marine rule was concluded;  
The process of certification of engines is being reviewed;  
Efforts are being made to emphasize the control of emissions in-use;

A foundation was laid for a library of environmental data and information that will be easily acceptable on global networks (informal document No. 1). An agreement on the establishment of a global locator service for environmental information was reached among representatives to the Global Information Society initiative, which was convened at the suggestion of the US Vice-President Gore and organized by the G7 countries (Canada, France, Germany, Italy, Japan, United Kingdom, United States and the European Commission). Further information on the information locator service can be found at <http://www.g7.fed.us/gils.html>

#### OTHER BUSINESS

##### Follow-up to the Regulation on the replacement of catalytic converters

60. After the thirty-third session of GRPE an informal meeting was organized by CLEPA in order to elaborate a second stage Regulation on the replacement of catalytic converters.

AGENDA FOR THE NEXT SESSION

61. The Meeting of Experts agreed that, with respect to the anticipated agenda, the next session might be reduced to two working days only, subject to approval by the Working Party at its one-hundred-and-eleventh session. Based on this proposal, the thirty-fourth session should be held in Geneva from Monday 9 June (14.30h) to Wednesday 11 June (12.30h) 1997. 3/ The Meeting of Experts agreed on the following agenda:

1. Regulation No. 49 (Emissions of compression-ignition engines)
  - 1.1. Development of the emission testing procedure
  - 1.2. Approval of vehicles equipped with LPG- and NG-fuelled engines
2. Regulation No. 83 (Emissions of M<sub>1</sub> and N<sub>1</sub> categories of vehicles) Alignment with EU Directives 96/44/EC and 96/69/EC
3. Preparation of the 1997 Regional Conference on Transport and the Environment
4. Perspectives in transport and the environment
  - 4.1. Technical requirements on vehicles after the year 2000
  - 4.2. Reductions of carbon dioxide emissions and fuel consumption
5. Amendments to ECE Regulations with respect to LPG- and NG-fuelled vehicles/engines
  - 5.1. Regulation No. 67 (Equipment for liquefied petroleum gas)
  - 5.2. Regulation No. 83 (Emissions of M<sub>1</sub> and N<sub>1</sub> categories of vehicles)
  - 5.3. Regulation No. 101 (CO<sub>2</sub> emissions and fuel consumption of passenger cars)
6. Exchange of information on national and international requirements on emissions 4/
7. Other business

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3/ 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.

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

Annex

LIST OF INFORMAL DOCUMENTS DISTRIBUTED WITHOUT A SYMBOL DURING THE SESSION

No.	Transmitted by	Agenda item	Language	Title
1.	USA	5.	E	Press release of 18 December 1996 on global locator service for environmental information
2.	Netherlands	4.2.	E	Certification of vehicles and engines on gaseous fuels
3.	Switzerland	4.2.	E	Equipment for the Measurement of Natural Gas Vehicles - Swiss Federal Laboratories for Materials Testing and Research (EMPA)
4.	OICA	1.1.	E	OICA's concept of worldwide harmonization relating to exhaust emissions from commercial vehicles
5.	Japan	5.	E	WTO Notification Concerning Partial Revision of the Safety Regulations for Road Vehicles on Motor Vehicle Exhaust Emissions (MOT NEWS, No. 81, Dec.12, 1996)
6.	AEGPL	4.2.	E	Complements to AEGPL proposal for draft amendments to Regulation No. 83 (TRANS/WP.29/GRPE/R.271)
7.	OICA	1.1.	E	Draft revision of Regulation No. 49
8.	OICA	1.1.	E	EURO 3 Technical Annexes - Presentation
9.	Hungary	4.5.	E	Remarks concerning the new draft regulation on motor vehicles using CNG (TRANS/WP.29/GRPE/R.269)
10.	Hungary	5.	E	Changes of the fuel compositions and properties in Hungary from 1 January 1997
11.	European Commission	1.3., 4.3.	E	Proposal for the choice of the reference fuels for testing vehicles and engines fuelled by natural gas
12.	Russian Federation	5.	E	Introduction of ECE Regulations in Russia
13.	France	1.3.	E	Proposal of introduction of the measurement of gaseous pollutants from natural gas engines
No.	Transmitted by	Agenda item	Language	Title
14.	European Commission	5.	E/F	Commission Directive 96/44/EC of 1 July 1996 (adapting to technical progress Council Directive 70/220/EEC ...) (Official Journal of the EC, No. L 210 of 20.8.1996)
15.	European Commission	5.	E/F	European Parliament and Council Directive 96/69/EC of 8 October 1996 (amending Directive 70/220/EEC ...) (Official Journal of the EC, No. L 282 of

1.11.1996)

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