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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-FOURTH SESSION (9 - 11 June 1997)

ATTENDANCE

1. The Meeting of Experts on Pollution and Energy held its thirty-fourth session from 9 June (afternoon) to 11 June (morning) 1997 under the chairmanship of Mr. B. Gauvin (France). Experts from the following countries participated in the work: Czech Republic; Denmark; France; Germany; Greece; Hungary; Italy; Netherlands; Norway; Poland; Romania; Russian Federation; Slovenia; Spain; Sweden; Switzerland; United States of America. Experts from the European Commission (EC) also participated. Representatives of Japan and of the People's Republic of China took part 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 Organization of Motor Vehicle Manufacturers (OICA); International Motorcycle Manufacturers Association (IMMA); Automobile Emissions Control by Catalysts (CEFIC/AECC); The Oil Companies' European Organization for Environment, Health and Safety (CONCAWE); European LPG Association (AEGPL); European Natural Gas Vehicle Association (ENGVA).

2. Prior to the session, on 9 June 1997, morning only, an informal meeting of the "Brainstorming group" (BSG) was held under the chairmanship of Mr. C. Havenith to consider possible approaches to world-wide test cycle harmonization for heavy-duty engines (TRANS/WP.29/GRPE/33, para. 12). Experts from the following countries and organizations participated in the work: Czech Republic; Germany; Hungary; Japan; Netherlands; Poland; Slovenia; Sweden; Switzerland; United States of America; European Commission (EC); International Organization for Standardization (ISO); International Organization of Motor Vehicle Manufacturers (OICA). A report on the results of this informal meeting is summarized below.

3. The documents without a symbol distributed during the session are listed in annex 1 to this report.

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

(a) Development of the emission testing procedure

Documentation: Informal documents Nos. 1, 3, 4, 14, 18 and 20 of annex 1 to this report.

4. The expert from CONCAWE informed WP.29/GRPE that a proposal identical with informal document No. 1 had been transmitted to the European Commission, for consideration by the Motor Vehicle Emissions Group (MVEG). The Meeting of Experts agreed in principle to modify the fuel specifications along the proposal of informal document No. 1, if it was also accepted for the corresponding EU Directive.

5. Referring to the discussion during the thirty-first session of the Meeting of Experts (TRANS/WP.29/GRPE/31, para. 7), the expert from Switzerland reiterated the Swiss proposal for the test cycles for heavy-duty engines to be used for the periods after 1999/2000 and after 2004/2005. In his proposal severe reductions of the emission limits were specified and a development suggested of a new particulate matter measurement method accounting better than the present gravimetric method for the effect of this pollutant on human health (informal document No. 3).

6. Mainly for information, the expert from Switzerland distributed informal document No. 14, containing an evaluation of the influence of data processing and of five different types of opacimeters on two different engines on the smoke measurement results for the European Load-Response Test of the OICA/ACEA 13-mode steady state test (TRANS/WP.29/GRPE/31, para. 6).

7. The expert from OICA introduced informal document No. 4 containing a draft Revision of Regulation No. 49, incorporating the technical annexes corresponding to EURO 3 emission limits (to be applied as from 1999/2000) and containing the engine family concept. He said that this text represented a revision of the proposal which had been distributed during the thirty-third session (TRANS/WP.29/GRPE/33, para. 7). The Meeting of Experts commended the work, although it was noted that informal document No. 4 had been based on Regulation No. 49, Revision 2 (02 series of amendments and Corr. 1 to 02 series) and had not taken into account Supplements 1 and 2 to the 02 series of amendments, as well as Corrigendum 2 to the 02 series.

8. The expert from the European Commission reported that a proposal to introduce EURO 3 into Directive 88/77/EEC was under consideration and should also set targets for EURO 4, based on the results of the Auto-Oil II Programme. At the request of WP.29/GRPE, he had prepared a written statement, which is reproduced in annex 2 to this report. He estimated that within the next six months the work would not be completed and agreed to provide more information at the next session of WP.29/GRPE. The Meeting of Experts agreed that the Regulation and the Directive needed to be developed in parallel and agreed for the time being to use informal document No. 4 as an interim working proposal.

9. The Chairman of the BSG (Brainstorming group) reported on the results of the first meeting (see para. 4 above) and presented to WP.29/GRPE a draft of its programme and work organization (informal document No. 20). He also confirmed that all parties had confirmed their willingness to proceed towards a harmonized test cycle which could be installed in time for EURO 4 level of emission limits. The Meeting of Experts considered and adopted informal document No. 20 as a mandate for BSG. Mr. C. Havenith from the Netherlands and Mr. M. Biver from OICA were confirmed in the functions of the Chairman and the secretary of BSG. WP.29/GRPE encouraged all the countries to participate in the work of BSG and expressed a hope that a harmonized test cycle might be developed in time. It was agreed that interim reports on the work of the BSG should be given to the Meeting of Experts during each session.

10. In connection with the aims to develop a harmonized test cycle for heavy-duty engines, the proposal by OICA for a reference to such a future cycle in Regulation No. 49 (informal document No. 18) was accepted in principle, but the Meeting of Experts decided that it should become a subject for consideration at a later time, in the frame of the development of the Regulation.

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

Documentation: TRANS/WP.29/GRPE/R.275/Rev.1; TRANS/WP.29/GRPE/R.277; informal document No. 16 of annex 1 to this report.

11. The expert from the European Commission advised the Meeting of Experts that in the proposal for draft amendments to Regulation No. 49 (TRANS/WP.29/GRPE/R.275/Rev.1), the range considered of NG reference fuels was incomplete, particularly at the H-range (informal document No. 16). He gave a presentation of the natural gas fuels marketed in Europe in 1994/95 and suggested that G20 reference fuel was replaced by G_{xy} fuel. The expert from ENGVA considered the proposal to be important for his industry and supported the request for its consideration. The expert from the Netherlands considered the proposal acceptable.

12. Related to the suggested procedure for measuring of gaseous pollutants emitted by NG-fuelled engines (TRANS/WP.29/GRPE/R.277), the Meeting of Experts engaged in an exchange of views on emission levels of various pollutants, particularly with respect to non-reactive HC (methane). The expert from ENGVA agreed to distribute at the next session a paper which had recently been

prepared within his organization and dealing with the subject of NG-fuelled engines emissions.

13. The Meeting of Experts agreed to resume this item at the next session, although realizing that the relevant European Commission proposal might not yet be available at that time (see annex 2 to this report).

(c) Draft Corrigendum 1 to Supplement 1 to the 02 series of amendments

14. Aside from the agenda of the session, the expert from Italy requested a corrigendum to the equation in paragraph 1.1.3.2. of Annex 4 - Appendix 3 to Regulation No. 49. Hearing the justification given, the corrigendum was adopted by the Meeting of Experts ($KNO_x = 0.6272 + 0.4403\ H - 0.0008625\ H^2$) and the secretariat was requested to prepare a relevant document for consideration by the Working Party and the Administrative Committee AC.1, if possible at its sixth session. (Note by the secretariat: Adopted by AC.1 at its sixth session - see TRANS/WP.29/566, para. 140; final document TRANS/WP.29/591.)

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

15. Following the information by the expert from France that a proposal had been prepared to align Regulation No. 83 with EU Directives 96/44/EC and 96/69/EC, the secretariat regretted that no proposal had been received from France and/or the United Kingdom (TRANS/WP.29/GRPE/33, para. 59). With regard to this situation, WP.29/GRPE agreed to defer the consideration of this item to the thirty-fifth session (January 1998).

PREPARATION OF THE 1997 REGIONAL CONFERENCE ON TRANSPORT AND THE ENVIRONMENT

16. A brief report on the work of the Preparatory Committee of the Conference was given by the secretariat, reviewing the results of its fifteenth session, particularly with respect to development of the proposals which had previously been considered by the Meeting of Experts and by the Working Party (TRANS/WP.29/GRPE/33, paras. 22-28).
Note by the secretariat: At its sixteenth session (30 June - 2 July 1997) the PrepCom decided to convene a special Task Force to continue the work on these proposals in order to find compromises on items which were disputed by some delegations. The sessions of the Task Force were scheduled for 22 and 23 July 1997 and 3 September 1997, whilst the seventeenth session of PrepCom should be held on 4 and 5 September 1997.

PERSPECTIVES IN TRANSPORT AND THE ENVIRONMENT

(a) Technical requirements on vehicles after the year 2000

17. Detailed information about the Auto-Oil II Programme which had been launched by the EC on 28 and 29 January 1997 was given by the expert from the European Commission. His statement is reproduced in annex 2 to this report. His information was complemented by the expert from the Netherlands, who said

that an initial proposal to achieve the desired air quality standards had been prepared for consideration by the Council of Ministers during June 1997. In the discussion which followed some technical details of the proposal were discussed, including the questions of on-board diagnostics (OBD), emission limits and fuel quality.

(b) Reduction of carbon dioxide emissions and fuel consumption

Documentation: Informal document No. 13 of annex 1 to this report.

18. The expert from the United States of America evaluated the challenges of the commitment to limit emissions of greenhouse gases in his country. He distributed informal document No. 13 containing a Technical report of the U.S. Environmental Protection Agency (EPA) entitled "Light-Duty Automotive Technology and Fuel Economy Trends Through 1996", the U.S. National Research Council's review of the programme "Partnership for a New Generation of Vehicles (PNGV)" and a Declaration of Intent for this PNGV, which had been formed by Ford, Chrysler and General Motors.

19. Reports about similar partnership programmes were also given by the experts from France and Germany. The French manufacturers have committed themselves to an average fuel economy figure of 150 g/km CO_2 by 2005. The expert from Germany said that, in his country, the target was to reduce by voluntary agreement the fleet fuel consumption of new vehicles by 25 per cent in 2005 with respect to 1990. Also the experts from Italy and Japan reported on voluntary agreements between the Governments and vehicle manufacturers in their countries. The representative of OICA confirmed that manufacturers should continue their efforts to develop new technologies in order to reduce fuel consumption of vehicles. He said that gas-fuelled vehicles had 22 per cent lower CO_2 emissions in comparison with those using a liquid fuel. Referring to the situation in Germany, another expert from OICA expressed a hope that, considering their inherently lower fuel consumption, no further limitation would be imposed on the production and use of compression-ignition engines for passenger cars.

20. The expert from the EC said that the Commission's target for the year 2010 of 5 l/100 km for petrol-fuelled vehicles and 4.5 l/100 km for those using diesel fuel was equal to about 120 g/km CO_2. He said that means considered to promote vehicles with increased fuel economy included:

(a) labelling of vehicles;
(b) consideration of voluntary agreements with the industry;
(c) study of the fiscal measures which could be applied.

21. In connection with the above-reported efforts, the Meeting of Experts noted that global calculations show that on land only 4 per cent of CO_2 emissions result from human activities, about 25 per cent of that from all modes of transport (i.e. about 1 per cent of the total land CO_2 emissions). However, and also with respect to energy saving, there was full understanding that the efforts towards more fuel efficient and less polluting vehicles should continue. The Meeting of Experts agreed to keep this item on its agenda and to continue its monitoring of the future developments.

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/R.808; TRANS/WP.29/GRPE/R.280; informal documents Nos. 5, 6, 7, 8, 10, 17 and 21 of annex 1 to this report.

22. Recalling the decision which had been made during the thirty-third session (TRANS/WP.29/GRPE/33, paras. 39 and 40), the Meeting of Experts noted the proposal for draft Supplement 2 to Regulation No. 67 (TRANS/WP.29/R.808) with the corrigenda signalled by Greece (informal document No. 10) and by the Netherlands (informal document No. 21). The Meeting of Experts considered the proposal to be important and urgent, particularly with respect to the situation in the European Union, where the reception of all vehicle types should be mandatory as from 1 January 1998.

23. The expert from France introduced informal document No. 17, proposing additional amendments to the above proposal, addressing the question of overpressure caused by extreme ambient temperatures. With a reference to the introductory note in this informal document, the expert from Italy said that extreme climatic conditions require for his country to raise the pressure setting of the relief valve from 2,300 to 2,600 kPa (see para. 6.14.8.4. of the proposal). He made this request a condition for accepting document TRANS/WP.29/R.808 and said that low pressure setting of the relief valve might cause fuel spill.

24. To address the concern of the expert from Italy, France suggested two alternative solutions:

(a) 80 per cent filling of the tank and in certain cases protection by a relief valve set to 25 ± 2 bar (2,500 ± 200 kPa);

(b) 80 per cent filling of the tank, 27 ± 1 bar, no relief valve.

The expert from Italy indicated clearly his preference for solution (b) and indicated that a unique solution should be adopted, applicable to all climatic conditions in Europe.

25. The expert from AEGPL introduced informal documents Nos. 5, 6 and 7 containing draft CEN standards and a proposal to make references to those draft standards in the text of the Regulation (informal document No. 8). She indicated that discussion was in progress to make a reference to those draft standards in the corresponding EU Directive. Note by the secretariat: Consideration of the proposal by AEGPL continued at the one-hundred-and-twelfth session of WP.29 and it was decided "not to refer to suggested draft standards for the time being" (TRANS/WP.29/566, para. 64).

26. Taking account of the technical difficulties reported above, WP.29/GRPE invited the experts from Italy and the Netherlands to validate the solutions noted in paragraph 24 above in time for the one-hundred-and-thirteenth session of the Working Party. Note by the secretariat: At its one-hundred-and-twelfth session the Working Party decided to send document TRANS/WP.29/R.808 to the Meeting of Experts for reconsideration at its thirty-fifth session (TRANS/WP.29/566, para. 5(iii)).

(b) Regulation No. 83 (Emissions of M1 and N1 categories of vehicles)

Documentation: TRANS/WP.29/R.809 and Corr.1; informal documents Nos. 11 and 16 of annex 1 to this report.

27. Informal document No. 11 was examined by the Meeting of Experts and adopted with modifications (Note by the secretariat: For the adopted text see TRANS/WP.29/566, annex 5).

28. Informal document No. 16 was considered (see also para. 11 above), but not adopted.

29. The Meeting of Experts confirmed that documents TRANS/WP.29/R.809 and Corr.1 should be considered by the Working Party and the Administrative Committee AC.1 at its sixth session (TRANS/WP.29/GRPE/33, para. 47) with the amendments based on informal document No. 11 (see para. 27 above). (Note by the secretariat: Adopted by AC.1 at its sixth session - see TRANS/WP.29/566, para. 130; final document TRANS/WP.29/581.)

(c) Regulation No. 101 (CO_2 emissions and fuel consumption of passenger cars)

Documentation: TRANS/WP.29/R.811.

30. The Meeting of Experts confirmed that document TRANS/WP.29/R.811 should be considered by the Working Party and the Administrative Committee AC.1 at its sixth session (TRANS/WP.29/GRPE/33, para. 52). (Note by the secretariat: Adopted by AC.1 at its sixth session - see TRANS/WP.29/566, para. 132; final document TRANS/WP.29/583.)

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

Documentation: TRANS/WP.29/R.810.

31. The Meeting of Experts confirmed that document TRANS/WP.29/R.810 should be considered by the Working Party and the Administrative Committee AC.1 at its sixth session (TRANS/WP.29/GRPE/33, para. 48); the alternative proposals for measuring the highest instead of lowest power were approved (see TRANS/WP.29/R.810). (Note by the secretariat: Adopted by AC.1 at its sixth session - see TRANS/WP.29/566, para. 131; final document TRANS/WP.29/582).

EXCHANGE OF INFORMATION ON NATIONAL AND INTERNATIONAL REQUIREMENTS ON EMISSIONS

Documentation: Informal document No. 12 of annex 1 to this report.

32. The following information was given:

European Union (EU) countries - Note from the European Commission (EC): In February 1997, the EC submitted its proposals for the next stage of emission limits applicable to light commercial vehicles to the European Parliament and the Council of Ministers. The proposals set 2 stages:
The first stage sets limits for class I according to those already proposed for cars, with proportional limits for classes II and III. The type approval date for class I is 1 January 2000 (same as cars), whilst the date for classes II and III is 1 January 2001.
A second stage applicable in 2005 is also proposed, as indicative limits, to allow EU Member States to apply fiscal incentives to encourage the early introduction of cleaner vehicles.
The on-board diagnostics (OBD) is proposed with limits for OBD monitoring set for both stages.
The EC expects discussions to proceed during the term of the Luxembourg Presidency of the EU (July-December 1997).

Denmark: Change in the vehicle annual taxation system concluded
(i) based on the energy consumption/CO_2 emission; range 50,- ECU p.a. to 2000.- ECU p.a. for petrol-fuelled vehicles, 200 ECU p.a. to 3000.- ECU p.a. for diesel-fuelled vehicles;
(ii) from 1 January 1998 special tax incentive for light commercial vehicles meeting emissions proposed for EURO 3 and EURO;
(iii) tax on petrol graduated in 5 steps according to benzene content.
More detailed (written) information possibly at the next session.

Japan: Information about a partial revision of Type Designation Regulation for Motor Vehicles (informal document No. 12):
(i) Only one truck or bus (previously two) to be presented for a durability test (pollution); safety-related durability test abolished (as from 24 March 1997);
(ii) Expansion of the scope of requirements for the anti-pollution equipment 30,000 km durability test of a diesel-powered truck or bus with $2.5\ t < GVW < 3.5\ t$ (as from 1 October 1997), with $3.5\ t \leq GVW \leq 12\ t$ (as from 1 October 1998); Note: 20,000 km for petrol fuelled truck or bus or diesel-fuelled one with $GVW \leq 2.5\ t$ (GVW = Gross Vehicle Weight).

People's Republic of China: The Government and the Automobile Industry pay more attention to the ECE emission Regulations. Last year the Ministry of Machinery Industry established an expert group to carry out detailed research of these Regulations; currently the focus is on Regulations Nos. 49, 24, 83 and 85. Participation of the delegations of the People's Republic of China at the sessions of WP.29/GRPE is a part of this policy.

United States of America: Air quality standards will be tightened from 0.12 ppm of ozone (O_3) measured over one hour to 0.08 ppm measured over eight hours, with the average fourth highest concentration over a three-year period determining whether an area is out of compliance.
A regulation of environmental behaviour of railway engines is under consideration.
Heavy-duty standard for on-highway engines under consideration for the next century.
On-board diagnostics (OBD) just proposed, comments asked for.

OTHER BUSINESS

(a) Proposal for a draft Regulation concerning retrofit systems for LPG and CNG

Documentation: TRANS/WP.29/GRPE/R.279; informal documents Nos. 15 and 19 of annex 1 to this report.

33. The proposal for a new draft Regulation (TRANS/WP.29/GRPE/R.279) was introduced by the expert from Italy, who stressed its main features. He said that in his country these systems had been practically produced for about 10 years, and there were:
(a) 1,700 thousand vehicles fitted with LPG systems, 1,750 LPG filling stations;
(b) 300 thousand vehicles fitted with CNG systems, 90 CNG filling stations.

34. Some remarks to the proposal were given by the expert from Hungary (informal document No. 15), who proposed their detailed discussion at the next session. He evaluated the proposal by Italy (see para. 33 above) as an important one and stated that, in his country, LPG retrofit systems were used for cars also for about 10 years and there were city buses converted to CNG.

35. Support to the proposal was also given by the expert from Poland, who described the application of LPG retrofit systems in his country. He drew the attention of WP.29/GRPE to the questions of conformity of production for retrofitting, which in his view needed special consideration.

36. The expert from OICA said that the proposal had been received only shortly before the session and requested more time for its study. He pointed to the definitions of a parent vehicle and parent engine in the family, which in his view were excessively open and made families too large.

37. The expert from the Netherlands noted that there were about 80 thousand vehicles retrofitted in his country annually. The retrofit stations needed to be approved to carry out this work, the quality control was applied and from 1990 the emissions of retrofitted vehicles were checked. He evaluated positively the proposal by Italy and offered his cooperation in its development, including the definitions of a family concept.

38. The expert from ISO said that since 1995 there were five working groups in ISO and CEN working on the subjects discussed and that they comprise experts also from Australia, Brazil and Canada. He suggested that, to avoid

duplication, the important ISO work should be accounted for and offered ISO cooperation in the development of the proposal. In their reply, the experts from Italy and OICA explained that there were no conflicts between the proposed draft performance Regulation by the Governments and the technical standards developed by ISO.

39. All the comments made during the introductory discussion were noted by the expert from Italy. He informed the Meeting of Experts of his intentions to continue the work on the proposal for a detailed discussion at the thirty-fifth session in January 1998. He invited all interested parties to provide him with written suggestions for this purpose.

(b) 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 documents Nos. 2 and 9 of annex 1 to this report.

40. The expert from Italy explained that informal document No. 2 was intended to complete the proposal for a draft Regulation (TRANS/WP.29/GRPE/R.269) by adding a special annex containing provisions for high-pressure containers for CNG. He said that these provisions were complex, based on an ISO standard and, in his opinion, should not be the subject of a separate Regulation. Referring to the large volume of this annex, the expert from Italy suggested that it could be reduced by references to the ISO standard. This suggestion was acknowledged by the experts from ISO and ENGVA.

41. The expert from the Netherlands indicated that his informal document No. 9 had already been discussed with Italy and had in principle been considered acceptable.

42. The expert from Hungary recalled that, on behalf of his country, comments to document TRANS/WP.29/GRPE/R.269 had already been presented during the thirty-third session of the Meeting of Experts (informal document No. 9, see TRANS/WP.29/GRPE/33, paras. 53 to 58 and the annex).

43. The expert from OICA considered the proposals by Italy important and said that comments by his organization would be prepared for consideration at the next session of the Meeting of Experts.

44. To facilitate the consideration of the proposal for this new draft Regulation, the Chairman asked delegations to direct any comments to the expert from Italy, if possible by the end of September, and requested the Italian delegation to do all necessary preparatory work before the thirty-fifth session of WP.29/GRPE.

AGENDA FOR THE NEXT SESSION

45. For the thirty-fifth session, to be held at Geneva from Tuesday 13 January (14.30 h) to Friday 16 January (12.30 h) 1998, 1/ 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_1 and N_1 categories of vehicles) Alignment with EU Directives 96/44/EC and 96/69/EC

3. Amendments to ECE Regulations with respect to LPG- and NG-fuelled vehicles/engines

   3.1. Regulation No. 67 (Equipment for liquefied petroleum gas)
   3.2. Reference fuels

4. Proposal for a draft Regulation concerning retrofit systems for LPG and CNG

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

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. Results of the 1997 Regional Conference on Transport and the Environment

8. Exchange of information on national and international requirements on emissions 2/

9. Other business

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.

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

Annex 1

LIST OF INFORMAL DOCUMENTS DISTRIBUTED WITHOUT A SYMBOL DURING THE SESSION

No.	Transmitted by	Agenda item	Language	Title
1.	CONCAWE	1.1.	E	Proposal for draft amendments to Regulation No. 49, Annex 5 - Technical Characteristics of Reference Fuel
2.	Italy	7.2.	E	Proposal for annex 3 to doc. TRANS/WP.29/GRPE/R.269 - Uniform provisions concerning: Gas cylinders; High pressure cylinder for the on-board storage of natural gas as a fuel for automotive vehicles
3.	Switzerland	1.1.	E/F	Swiss proposal concerning Top 1.1 for GRPE meeting on 9th-11th June 1997
4.	OICA	1.1.	E	Regulation No. 49 - Revision x: Uniform provisions concerning the approval of compression ignition (C.I.) engines and vehicles equipped with c.i. engines with regard to the emissions of pollutants by the engine
5.	AEGPL	5.1.	E/F/G	Automotive liquefied petroleum gas components - Tanks (European Standard Draft prEN 12805, dated March 1997)
6.	AEGPL	5.1.	E/F/G	Automotive liquefied petroleum gas components - Other than tanks (European Standard Draft prEN 12806, dated March 97)
7.	AEGPL	5.1.	E	Automotive LPG-systems: Installation requirements (European Standard [Draft] prEN xxx, dated January 1997)
8.	AEGPL	5.1.	E	AEGPL Proposal for Amendments to Regulation 67 with a view to referencing CEN/TC 286 standards
9.	Netherlands	7.2.	E	Comments on doc. TRANS/WP.29/GRPE/R.269 (Equipment and Installation of equipment for CNG)
10.	Greece	5.1.	E	Editorial corrections of doc. TRANS/WP.29/R.808 Supplement to informal document No. 10

No.	Transmitted by	Agenda item	Language	Title
11.	OICA	5.2.	E	OICA request for changes to be made in document TRANS/WP.29/R.809
12.	Japan	6.	E	Abolition of Presentation of the Vehicle Running for Long-distances to Certify the Durability as Regards Safety - Partial Revision of Type Designation Regulation for Motor Vehicles
13.	United States of America	4.2.	E	Programs for the Reduction of Carbon Dioxide Emissions and Fuel Consumption in the U.S.
14.	Switzerland	1.1.	E	EURO 3 - ELR: Test Program on Comparison of different Opacimeters
15.	Hungary	7.1.	E	Remarks concerning the new draft regulation on motor vehicles using CNG (TRANS/WP.29/GRPE/R.279 part II)
16.	European Commission	1.2., 5.2.	E	Comments on the proposal for the approval of vehicles equipped with LPG - and NG - fuelled engines (choice of the reference fuels)
17.	France	5.1.	E/F	Proposal for draft amendments to Supplement 2 to Regulation No. 67 (document TRANS/WP.29/R.808)
18.	OICA	1.1.	E	Untitled (Re: Proposed references to an eventual World Harmonized Test Cycle in the future revision of Regulation No. 49)
19.	United Kingdom	7.1.	E	UK comments on the proposal for a draft Regulation on the retrofit systems for liquefied petroleum gas (LPG) and compressed natural gas (CNG) (TRANS/WP.29/GRPE/R.279)
20.	Brainstorming Group on Test Cycles	1.1.	E	Objectives / Justification for Worldwide Harmonization
21.	Netherlands	5.1.	E	Corrigenda to the English version of document TRANS/WP.29/R.808

Annex 2

STATEMENTS OF THE EXPERT FROM THE EUROPEAN COMMISSION

Re. REGULATION No. 49

(a) Development of the emission testing procedure

The European Commission is finalizing its proposals for heavy-duty vehicles on the basis of the work in Mr. Stein's expert group and the conclusions of Mr. Dunne's ad-hoc test cycle group.

At this time the technical annexes are in the translation phase since Commission procedures require proposals to be in English/French/German languages for agreement within the Commission.

The legal articles and Annex I are being finalized.

The content will be a new stage of emission limits for EURO 3, for the year 2000 (October) on the basis of the 30 per cent reductions in NO_x and particulate matter (PM) emissions developed in the Auto-Oil Programme. The correlation factors between the present 13-mode cycle and the OICA and FIGE cycles will be accounted for. On the OICA cycle, the 2000 limits equal to 5.0 g/kWh for NO_x and 0.1 g/kWh for PM. A specific PM limit for small capacity, high speed diesel engines is also being considered, i.e. engines with a cylinder capacity <700 cm^3/cylinder and a rated power speed > 3,000 min^{-1}. The test cycles for EURO 3 will be recommended by Mr. Dunne's group for the various engine types.

A EURO 4 stage will also be proposed and the Commission is presently finalizing the requirements for this stage. EURO 4 will give indicative limits which will be the basis for a fiscal framework in the European Union. EURO 4 limits and test cycles will be subject to a review in good time before its date of 2005 on the basis of technology - fuel quality and also the progress towards global harmonization (Mr. Havenith's group).

On-board diagnostics (OBD) is not envisaged for EURO 3; there are fundamental questions relating to OBD limits and OBD monitoring cycle to be answered. OBD may be optional for EURO 3, but respecting the present standards for OBD communication, OBD tools, fault codes, diagnostic connector, etc. The review referred to above will look at the potential for mandatory OBD for the EURO 4 stage.

When provisions for gas fuelled engines are complete, these will be added to the proposals, including appropriate limits for EURO 3 and EURO 4.

The Commission's aim is to make its formal proposal by September and transmit it to the European Parliament and to the Council of Ministers. The proposal is due to be discussed during the term of the United Kingdom's presidency (January - July 1998).

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Re. PERSPECTIVES IN TRANSPORT AND THE ENVIRONMENT

(a) Technical requirements for vehicles after the year 2000

The Auto-Oil II Programme (AO2P) was launched on 28/29 January 1997 at a symposium hosted by the European Commission in Brussels.

The basis for the AO2P is to review the indicative limits for passenger cars proposed for the year 2005 stage of the proposals presently being discussed in the Council of Ministers and the European Parliament. An Article in proposal requires the Commission to bring forward proposals to confirm or modify the year 2005 limits on the basis of a review of future air quality, advances in technology and fuel quality, changes to test procedures, alternative fuels, fiscal measures and the potential emission reductions from all sources of pollution. This study should be completed by December 1998.

The Commission has formulated a working plan and seven working groups (WG) have begun work. These seven working groups are looking at:

WG1 - Environmental Targets
WG2 - Vehicle Technology
WG3 - Fuels
WG4 - Inspection and Maintenance / Roadworthiness Testing
WG5 - Non-technical measures (road pricing, traffic management, etc.)
WG6 - Fiscal Measures
WG7 - Cost Effectiveness Modelling

Working Group WG1 will provide the future air quality targets which WG2 to WG6 will us as the basis to formulate solutions to achieve those air quality targets. WG7 will take the information from all the other WGs and develop a package of cost-effective measures to achieve future air quality targets. This will than form the basis of any recommendations to revise the indicative limits for 2005 and necessary fuel quality.

A contact group will meet at intervals during the study period where the progress of the AO2P plus results from the WG's will be disseminated to interested parties.

The Commission will report on the progress of the AO2P in the next session of WP.29/GRPE.

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