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Working Party on Lighting and Light-Signalling (GRE)

**REPORT OF THE WORKING PARTY ON LIGHTING AND
LIGHT-SIGNALLING (GRE) ON ITS FIFTY-FIFTH SESSION**

(3 to 7 October 2005)

ATTENDANCE

1. GRE held its fifty-fifth session from 3 (afternoon) to 7 (morning only) October 2005 in Geneva, under the chairmanship of Mr. M. Gorzkowski (Canada). 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): Canada; Czech Republic; Finland; France; Germany; Hungary; Italy; Japan; Luxembourg; Netherlands; Norway; Republic of Korea; Russian Federation; Spain; Sweden; United Kingdom; United States of America. Representatives of the European Commission (EC) also participated. Experts from the following non-governmental organizations: International Organization for Standardization (ISO); International Organization of Motor Vehicle Manufacturers (OICA); International Motorcycle Manufacturers Association (IMMA); European Association of Automobile Suppliers (CLEPA); Working Party "Brussels 1952" (GTB); International Electrotechnical Commission (IEC); International Road Transport Union (IRU); Comité de Liaison des Constructeurs de Carrosseries et Remorques (CLCCR).
2. The documents without a symbol distributed during the session are listed in Annex 1 to this report.

1998 AGREEMENT – Global technical regulation (gtr)

1. DEVELOPMENT OF NEW GTRS

1.1. gtr No. x (installation of lighting and light-signalling devices)

Documentation: TRANS/WP.29/GRE/2001/6/Rev.5; TRANS/WP.29/2005/94.

3. Referring to TRANS/WP.29/GRE/2001/6/Rev.5, the expert from Canada, Mr. Gorzkowski, chairing the informal working group, reported on the present status of the informal group's work on the elaboration of draft gtr on lighting and light-signalling devices. He stated that this document still contained optional requirements and informed GRE about the AC.3 decision (see report TRANS/WP.29/1041, para. 108) that optional requirements should be avoided. He introduced TRANS/WP.29/2005/94 regarding the status of gtr No. x and inclusion of alternative provisions in gtrs.

4. The expert from OICA also confirmed that gtrs should not contain options. He volunteered to prepare for the next GRE session a draft proposal for gtr No. x, which would contain no options. For that purpose, GRE experts were invited to send their proposals and comments to OICA's secretariat (oica@oica.net) by 21 October 2005. The expert from Germany recalled the need that gtrs should be accompanied by a cost-benefit analysis. GRE agreed to resume consideration of this subject at its next session on the basis of a new proposal by OICA. Notwithstanding OICA's proposal, the Chairman stated his intention to discuss during the November session of WP.29 the ways that opposing provisions could be incorporated into a gtr.

1.2. Development of further gtrs on harmonized beam pattern for headlamps and front fog lamps

5. GRE noted the request by WP.29 concerning the identification of technical sponsors for the elaboration of further gtrs on harmonized beam pattern and motor vehicle headlamp devices, Adaptive Front-lighting Systems (AFS) and fog lamps. The experts from IMMA and OICA informed GRE about the preparedness of their organizations to continue work in support of these gtrs, awaiting possible candidates for the sponsorship and the final decision by WP.29 and AC.3 on opposing provisions.

1.3. Status of gtr No. x and alternative provisions in gtrs

6. This subject was considered by GRE together with agenda item 1.1. (see paras. 3 and 4).

1958 AGREEMENT

GENERAL REGULATIONS

2. REGULATION No. 10 (Electromagnetic compatibility)

7. With regard to this subject, the expert from the European Commission (EC) informed GRE about the ongoing work on the forthcoming European Union (EU) Directive. The Chairman invited GRE experts to send their comments to the EC expert (entr-automotive-

industry@cec.eu.int). GRE agreed to resume consideration of this subject at its next session on the basis of a proposal by EC.

3. REGULATION No. 48 (Installation of lighting and light-signalling devices)

3.1. Operating voltage for lighting and light-signalling devices

Documentation: TRANS/WP.29/GRE/2003/20/Rev.2.

8. The expert from Germany recalled the purpose of TRANS/WP.29/GRE/2003/20/Rev.2. The expert from OICA indicated that, currently, there was a lack of justification for this document. Following the discussion, the expert from CLEPA volunteered to prepare a new proposal in order to amend the original document from Germany. The expert from IEC and OICA volunteered to assist CLEPA with the preparation of this document. GRE agreed to resume consideration of this subject at its next session on the basis of a new proposal by CLEPA, jointly with Germany, IEC and OICA.

3.2. Emergency-stop signal (ESS)

Documentation: Informal documents Nos. GRE-55-7 and GRE-55-13 of Annex 1 to this report.

9. The Chairman of the GRE meeting of experts dealing with this subject, Mr. N. Bowerman (United Kingdom), reported on the results of the joint GRE/GRRF meeting held in Brussels on 18 and 19 May 2005. He stated that the responsibilities had been clarified: GRRF would have to define the conditions for activation of the ESS and GRE would have to specify the appearance of ESS on the vehicle. He added the group's decision that the appearance should be a flashing light, either by flashing stop-lamps or by flashing hazard warning lamps or rear fog lamps. GRE was informed that the next meeting of the GRE expert group would be held in London on 8 December 2005.

10. The expert from OICA, Mr. O. Fontaine, informed GRE about the ongoing work of GRRF experts concerning ESS activation signals. He added that only one signal should activate ESS, depending on the vehicle deceleration value and the tyre adhesion conditions. The GRRF expert group already agreed on a deceleration value.

11. GRE noted that the Working Party on Road Traffic Safety (WP.1), during its forty-seventh session, came to the conclusion that the current text of Annex 5, para. 42 of the Vienna Convention forbids flashing stop lamps for the purposes of the Convention (see WP.1 report TRANS/WP.1/100, paras. 10 and 11 as well as the report of its juridical group TRANS/WP.1/2005/13). It was also noted that WP.1 had agreed to modify the Convention, if the proposed ESS was found to improve road safety. GRE experts were invited to keep in mind the need to prepare an amendment to the Vienna Convention according to the final decision on ESS.

12. The expert from Japan introduced GRE-55-7 on the automatic activation of the hazard warning signal. The expert from the United Kingdom suggested separating Japanese proposal from ESS, since it introduces a new warning concept of a following vehicle. Following the

discussion, GRE agreed that, during its next session, this issue should be discussed under a separate agenda item on the basis of a new proposal by Japan.

13. The expert from OICA also introduced GRE-55-13 on automatic activation of hazard warning lamps. The expert from the Netherlands expressed his concerns that requirements in the proposed document were too ambiguous and might lead to unnecessary activation of other devices. The expert from OICA volunteered to prepare a new proposal for consideration at the next GRE session.

3.3. Activation of a telltale

Documentation: Informal document No. GRE-55-4 of Annex 1 to this report.

14. The expert from GTB presented GRE-55-4 together with GRE-55-5, under agenda item 8., concerning a telltale activation criteria in a case of a failure of one or more light-emitting diode (LED) light sources. Some experts raised concerns that requirements in both documents would not guarantee the necessary safety level. GRE agreed to resume consideration of this subject at its next session on the basis of new proposals prepared by GTB and OICA.

3.4. Limiting the time of stop light display activated by the retarder

15. In the absence of research results by the United Kingdom, GRE agreed with the suggestion by the expert from Germany to prepare proposals, suggesting an activation of the stop lamps during a maximum of 4 seconds in the case of retarding, for consideration at the next session of the Working Party on Brakes and Running Gear (GRRF) in February 2006.

3.5. Lighting devices to illuminate boarding areas on the side of buses and coaches

Documentation: TRANS/WP.29/GRE/2005/25.

16. The expert from Sweden introduced TRANS/WP.29/GRE/2005/25 proposing the exclusion of service-door-lighting from the scope of Regulation No. 48 with an aim to improve the safety of boarding passengers. GRE adopted the proposal with the following amendments:

Page 2, paragraph 2.7., amend to read:

"2.7. "Lamp" means a device designed to illuminate the road or to emit a light signal to other road users. With the exception of light-emitting rear registration plates, rear registration plate lamps and retro-reflectors are likewise to be regarded as lamps. **For the purposes of this Regulation, the service-door-lighting according to the provisions of Regulation No. 107 on single-deck, double-deck, rigid or articulated vehicle of categories M2 and M3 are not considered as a lamp.**"

17. The secretariat was requested to transmit the document, as amended above, to WP.29 and AC.1, as draft Supplement 14 to the 02 series of amendments to Regulation No. 48, for consideration during their March 2006 sessions.

3.6. Clarification of the functioning of parking lamps

Documentation: TRANS/WP.29/GRE/2005/26.

18. The expert from Germany presented TRANS/WP.29/GRE/2005/26 introducing provisions for the independent operation of parking lamps regardless of the engine operation. GRE adopted the proposal, with the following amendment to the last sentence of paragraph 6.12.7.:

" A device which **automatically** deactivates "

19. The secretariat was requested to transmit the document, as amended above, to WP.29 and AC.1, as a part of draft Supplement 14 (para. 17) to the 02 series of amendments to Regulation No. 48, for consideration during their March 2006 sessions.

3.7. Clarification of the specification of visibility

Documentation: TRANS/WP.29/GRE/2005/28.

20. The expert from France introduced TRANS/WP.29/GRE/2005/28 proposing to replace the wording "light emitting surface" by "apparent surface". GRE adopted the proposal, not amended. The secretariat was requested to transmit the document to WP.29 and AC.1, as Corrigendum 1 to Supplement 10 to the 02 series of amendments to Regulation No. 48, for consideration during their March 2006 sessions.

3.8. Clarification of number of additional retro-reflecting devices

Documentation: Informal document No. GRE-55-12 of Annex 1 to this report.

21. GRE considered GRE-55-12, tabled by France, and adopted the proposal as reproduced in Annex 2. The secretariat was requested to transmit the document to WP.29 and AC.1, as a part of Corrigendum 1 (see para. 20) to Supplement 10 to the 02 series of amendments to Regulation No. 48, for consideration during their March 2006 sessions.

4. REGULATION No. 86 (Installation of lighting and light-signalling on tractors)

Documentation: TRANS/WP.29/GRE/2005/33.

22. The expert from GTB presented TRANS/WP.29/GRE/2005/33 suggesting the introduction of installation requirements for rear-marking plates of slow moving vehicles. As a large number of delegations could not support this proposal and preferred to maintain the decision for such requirements at a national level, GRE agreed to take the document off its agenda.

5. COLLECTIVE AMENDMENTS

5.1. Simplification of the approval markings

Documentation: TRANS/WP.29/GRE/2004/24.

23. The expert from GTB recalled the importance of establishing a type approval database, necessary for further progress concerning simplification of certain type approval markings. The secretariat informed GRE that a possible funding for a feasibility study had recently been received. GRE agreed to keep TRANS/WP.29/GRE/2004/24 on its agenda, awaiting new information concerning the feasibility study of such a type approval database.

5.2. Clarification of the scope of Regulations on lighting and light-signalling

Documentation: TRANS/WP.29/GRE/2005/27; informal document No. GRE-55-2 of Annex 1 to this report.

24. The expert from EC reported on the outcome of an expert meeting, held in Brussels on 18 and 19 May 2005 (see GRE-55-2). He introduced TRANS/WP.29/GRE/2005/27 proposing clarification of scopes of Regulations on lighting and light-signalling. The expert from Germany opposed excluding vehicles of categories L and T from the scope of Regulation No. 98 and raised a study reservation on this issue. Following the detailed examination of TRANS/WP.29/GRE/2005/27 and intensive discussions, GRE adopted in principal documents for draft supplements to twenty-six lighting and light-signalling Regulations. GRE would still discuss inclusion of L category vehicles in the scope of Regulation No. 98. The secretariat was requested to transmit the corresponding proposals to WP.29 and AC.1 for consideration at their June 2006 sessions. Nevertheless, GRE would review these proposals in its April 2006 sessions.

5.3. Specifications for headlamp markings

Documentation: TRANS/WP.29/GRE/2005/30.

25. The expert from GTB presented TRANS/WP.29/GRE/2005/30 proposing to align certain provisions of Regulations Nos. 19, 98 and 113 with those in Regulation No. 112. GRE adopted the proposal, not amended. The secretariat was requested to transmit the documents to WP.29 and AC.1, as draft Supplement 11 to 02 series of amendments to Regulation No. 19, as draft Supplement 7 to Regulation No. 98 and as draft Supplement 4 to Regulation No. 113, for consideration during their March 2006 sessions.

6. NEW GENERAL ITEMS

26. No new information was provided during the session.

7. REGULATION No. 4 (Illumination of rear registration plates)

27. The expert from GTB reported on the progress of work on this subject within GTB and invited experts to share their opinions about inclusion of requirements for light-emitting rear registration plates into Regulation No. 4. The majority of experts were in favour of an approach that light-emitting rear registration plates were not considered as lamps and might be used on vehicles only in combination with rear registration plate lamps. The expert from GTB volunteered to prepare a proposal for consideration at the next GRE session, taking into account the comments from experts.

8. REGULATION No. 6 (Direction indicators)

Documentation: Informal document No. GRE-55-5 of Annex 1 to this report.

28. See para. 14 (agenda item 3.3.).

9. REGULATION No. 70 (Rear marking plates)

Documentation: TRANS/WP.29/GRE/2005/24.

29. GRE considered the document from Poland TRANS/WP.29/GRE/2005/24 proposing to amend certain requirements in rigidity tests of rear marking plates. GRE adopted the proposal, not amended. The secretariat was requested to transmit the document to WP.29 and AC.1, as draft Supplement 4 to the 01 series of amendments to Regulation No. 70, for consideration during their March 2006 sessions.

10. REGULATION No. 87 (Daytime running lamps)

Documentation: TRANS/WP.29/GRE/2004/5/Rev.1; TRANS/WP.29/GRE/2004/42; TRANS/WP.29/GRE/2005/13; informal documents Nos. GRE-55-6 and GRE-55-17 of Annex 1 to this report.

30. The expert from GTB recalled the purpose of TRANS/WP.29/GRE/2004/5/Rev.1 to update photometric requirements in the Regulation. The expert from Germany introduced GRE-55-6 proposing mandatory installation requirements for daytime-running lights (DRL) in Regulation No. 48 in combination with mandatory automatically switching of DRL. The German proposal was supported by the experts from the Netherlands and the United Kingdom. The expert from Italy raised concerns about mandatory requirements since there are only three countries in Europe that require DRL on a mandatory basis. He added that it was premature to adopt such requirements when there is not a clear position of EC. The Chairman recalled that, in the current text of Regulation No. 48, there is a footnote 8 which allows Contracting Parties to forbid the use of DRL. The expert from EC informed GRE that an interpretation from the legal service, concerning footnote 8, was necessary before the elaboration of a common position concerning mandatory installation requirements for DRL. The expert from Italy regretted that

the experts from Germany, the Netherlands and the United Kingdom could not support the adoption of the document for the reason of the absence of automatically switching.

31. The expert from Germany volunteered to revise his proposal for the mandatory switching of DRL and to prepare a new document. GRE experts were invited to send their comments regarding this issue to the expert from Germany. GRE agreed to resume consideration of this subject at its next session on the basis of a revised document prepared by the secretariat and the proposal by Germany for the insertion of requirements for automatic switching of headlamps (see para. 30).

32. The experts from Germany and the United Kingdom withdrew their study reservations on TRANS/WP.29/GRE/2004/42. GRE adopted the proposal, not amended. The secretariat was requested to transmit the document to WP.29 and AC.1, as Supplement 8 to Regulation No. 87, for consideration during their March 2006 sessions.

33. The expert from OICA re-introduced TRANS/WP.29/GRE/2005/13 allowing the amber colour of DRL. The expert from the Netherlands was of opinion that the amber colour DRL could be acceptable only for category L vehicles. The Chairman introduced GRE-55-17 concerning the results of studies on DRL in Australia. The expert from IMMA informed GRE about the ongoing studies of DRL issues in Japan and the United States of America. The expert from OICA volunteered to prepare a new proposal taking into account the study results. GRE agreed to resume consideration of this subject at its next session on the basis of a new document by OICA.

11. COLOUR SPECIFICATIONS

11.1. Collective amendments on colour specifications

34. As no new information was provided during the session, GRE agreed to postpone consideration of this subject to the next GRE session awaiting a concrete proposal by the United Kingdom.

12. PHANTOM LIGHT AND COLOUR WASHOUT PHENOMENA IN SIGNALLING AND MARKING DEVICES

35. As no new information was provided during the session, GRE agreed to postpone consideration of this subject to the next GRE session awaiting a concrete proposal by GTB.

13. CONTOUR MARKINGS OF LARGE VEHICLES

Documentation: TRANS/WP.29/GRE/2005/44; informal documents Nos. GRE-55-3 and GRE-55-10; GRE-55-15 of Annex 1 to this report.

36. The expert from the United Kingdom, Mr. N. Bowerman, chairing the informal working group on conspicuity markings, introduced TRANS/WP.29/GRE/2005/44 proposing the insertion of new requirements for conspicuity markings into Regulation No. 48. The expert from CLCCR presented GRE-55-10 containing a proposal to amend paragraph 6.21.4.1.3. In addition, GRE considered GRE-55-15, tabled by OICA, proposing amendments to TRANS/WP.29/GRE/2005/44.

37. The expert from Italy indicated that requirements of paras. 6.21.1.2.1. and 6.21.1.2.2. of TRANS/WP.29/GRE/2005/44 might conflict with national regulations and raised a study reservation. The experts from the Czech Republic, Germany and the Netherlands strongly opposed to changing figure "45°" to "15°" in paras. 6.21.5.1.2. and 6.21.5.2. Following the detailed examination of the documents and resolution of raised issues, GRE adopted TRANS/WP.29/GRE/2005/44, as amended by Annex 3. The secretariat was requested to transmit the document to WP.29 and AC.1, as draft 03 series of amendments to Regulation No. 48, for consideration during their March 2006 sessions.

38. The expert from CLEPA introduced GRE-55-3 proposing amendment of Regulation No. 104 regarding test of conspicuity markings for adhesion strength and resistance to power washing. GRE adopted the proposal in principle and requested the secretariat to distribute the document, with an official symbol, for final adoption at the next GRE session so the document could be submitted to the June 2006 sessions of WP.29 and AC.1. Additional tests for conspicuity markings and elements for the test method will be considered during the future GRE sessions based on a new document from CLEPA.

14. NEW ITEMS REGARDING SIGNALLING AND MARKING DEVICES

39. No information was provided during the session.

ROAD ILLUMINATION DEVICE REGULATIONS

15. REGULATION No. 98 (Headlamps with gas-discharge light sources)

Documentation: TRANS/WP.29/GRE/2005/19.

40. The expert from GTB re-introduced TRANS/WP.29/GRE/2005/19 together with TRANS/WP.29/GRE/2005/20 under agenda item 16.2., regarding the development of the harmonized beam pattern and provisions for the cut-off line. GRE agreed to resume consideration of this subject at its next session on the basis of new proposals by GTB.

16. REGULATION No. 112 (Headlamps emitting an asymmetrical passing beam)

16.1. Elimination of the provisions for Class A headlamps

Documentation: TRANS/WP.29/GRE/2005/35.

41. The expert from Japan introduced TRANS/WP.29/GRE/2005/35 proposing prohibition of Class A headlamps on new four-wheeled vehicles. However, a large number of experts were of the opinion that such prohibition would not be acceptable since these lamps were still widely used on vehicles of categories L1 and T. The expert from Japan withdrew the proposal and volunteered to prepare new documents proposing amendments (inclusive transitional provisions) to Regulations Nos. 48 and 112 for the next GRE session.

16.2. Determination of cut-off line and harmonized driving beam pattern

Documentation: TRANS/WP.29/GRE/2005/20.

42. See para. 40 (agenda item 15.).

17. REGULATION No. 45 (Headlamp cleaner)

Documentation: TRANS/WP.29/GRE/2005/21.

43. GRE agreed to take, for the time being, TRANS/WP.29/GRE/2005/21 off the agenda.

18. FRONT FOG LAMPS

18.1. REGULATION No. 37 (Filament lamps)

Documentation: TRANS/WP.29/GRE/2005/34; informal document No. GRE-55-16 of Annex 1 to this report.

44. The expert from GTB introduced TRANS/WP.29/GRE/2005/34 and GRE-55-16 proposing amendments to the Regulation with regard to the use of certain categories of filament lamps in front fog lamps. GRE adopted TRANS/WP.29/GRE/2005/34 with the following amendments:

Page 2, Annex 1, the list of categories of filament lamps and their sheets, amend to read:

"....	<u>Category</u>		<u>Sheet number(s)</u>
....	H9	<u>***/</u>	H9/1 to 4
	H9B	<u>***/</u>	H9/1 to 4
...	H14		H14/1 to 4
	H21W	<u>**/</u>	H21W/1 to 2
		<u>****/</u>	

H27W/1		H27W/1 to 3
...		
HIR1	<u>***</u> /	HIR1/1 to 3
...		
HS5		HS5/1 to 4
PSX24W	<u>**</u> / <u>****</u> /	P24W/1 to 3
PX24W	<u>**</u> / <u>****</u> /	P24W/1 to 3
R2		R2/1 to 3
.... "		

Page 2, insert a new footnote ****/, to read:

****/ **See transitional provisions in Regulation No. 19.**

45. The secretariat was requested to transmit the document, as amended above, to WP.29 and AC.1, as draft Supplement 27 to the 03 series of amendments to Regulation No. 37, for consideration during their March 2006 sessions.

18.2. REGULATION No. 19 (Front fog lamps)

Documentation: TRANS/WP.29/GRE/2004/19/Rev.1; informal document No. GRE-55-16 of Annex 1 to this report.

46. The expert from Germany re-introduced TRANS/WP.29/GRE/2004/19/Rev.1 proposing amendments to the Regulation clarifying type approval requirements for front fog lamps of the sealed beam type. GRE considered this document together with GRE-55-16, tabled by Germany and GTB. GRE adopted TRANS/WP.29/GRE/2004/19/Rev.1 with the following amendments:

Page 2, paragraph 5.3., amend to read:

"5.3. The **front fog lamp** shall be equipped with one filament lamp approved according to Regulation No. 37, even if the filament lamp cannot be replaced. Any Regulation No. 37 filament lamp may be used, provided that no restriction on the application is made in Regulation No. 37."

Page 2, insert a new paragraph 15.4., to read:

"15.4. Granting of approvals for front fog lamps marked "B" as defined in this Regulation equipped with light source categories H21W, PSX24W and PX24W according to Regulation No. 37 shall be limited to a period of 12 months after entry into force of Supplement 10 to the 02 series of amendments of this Regulation. This restriction shall be removed if, during this time period, the new system of restrictions to the use of light sources is inserted in Regulation No. 37."

47. The secretariat was requested to transmit the document, as amended above, to WP.29 and AC.1, as a part of draft Supplement 11 to the 02 series of amendments to Regulation No. 19 (see

para. 25), for consideration during their March 2006 sessions. The expert from Italy pointed out that the determination of a 12-month limitation period in paragraph 15.4. is an unprecedented case and should not be commonly used in Regulations.

19. ADAPTIVE FRONT-LIGHTING SYSTEM (AFS)

19.1. Regulations Nos. 45 and 48 regarding AFS

Documentation: TRANS/WP.29/2005/29; TRANS/WP.29/2005/54; TRANS/WP.29/GRE/2005/22; informal document No. GRE-55-14 of Annex 1 to this report.

48. GRE noted that the amendments to Regulation No. 45 regarding AFS were submitted to WP.29 as TRANS/WP.29/2005/29 and decided to take it off the GRE agenda.

49. The expert from GTB introduced TRANS/WP.29/GRE/2005/22 proposing an amendment to Regulation No. 48 to clarify the requirements for the test drive during the compliance testing of AFS. In this respect, GRE agreed that simulation methods could be used only in combination with the test drive, but could never replace them. GRE agreed to add TRANS/WP.29/GRE/2005/22 to the revision of document TRANS/WP.29/2005/54.

50. Referring to TRANS/WP.29/2005/54, GRE considered GRE-55-14, tabled by OICA and proposing mandatory installation of headlamp cleaning devices, if the total luminous flux exceeded 2,000 lm. Some experts were of opinion that all AFS should have headlamp cleaning devices regardless of the luminous intensity of light sources. GRE agreed on minor changes in GRE-55-14 and requested the secretariat to distribute the document, with an official symbol, for consideration at the next GRE session. GRE Chairman was asked to inform WP.29 that TRANS/WP.29/2005/54 was still being considered by GRE and that /Rev. 1 would be submitted when all the additional concerns were addressed.

20. NEW ITEMS REGARDING ROAD ILLUMINATION DEVICES

20.1. Bend lighting (Regulation No. 98)

Documentation: TRANS/WP.29/GRE/2005/31.

51. The expert from GTB introduced TRANS/WP.29/GRE/2005/31 in order to clarify the provisions regarding the testing of headlamps designed to provide bend lighting. GRE adopted the proposal, not amended. The secretariat was requested to transmit the document to WP.29 and AC.1, as Supplement 7 to Regulation No. 98, for consideration during their March 2006 sessions.

20.2. Bend lighting (Regulation No. 112)

Documentation: TRANS/WP.29/GRE/2005/32.

52. For the same purpose as mentioned in para. 51, the expert from GTB introduced TRANS/WP.29/GRE/2005/32. GRE also adopted the proposal, not amended. The secretariat

was requested to transmit the document to WP.29 and AC.1, as Supplement 6 to Regulation No. 112, for consideration during their March 2006 sessions.

20.3. LED modules in headlamps (Regulation No. 48)

Documentation: TRANS/WP.29/GRE/2005/36; informal document No. GRE-55-9 of Annex 1 to this report.

53. The expert from GTB presented TRANS/WP.29/GRE/2005/36 proposing the insertion into the Regulation of the definition and additional provisions for LED. The expert from CLEPA introduced GRE-55-9 complementing the GTB proposal. Following the discussion, GRE concluded that the installation of automatic headlamp levelling and cleaning devices should be mandatory for headlamps with an objective luminous flux of less than 2,000 lm. The expert from GTB volunteered to prepare a new proposal for consideration at the next GRE session on the basis of TRANS/WP.29/GRE/2005/36 and GRE-55-9.

20.4. LED modules in headlamps (Regulation No. 112)

Documentation: TRANS/WP.29/GRE/2005/37; informal document No. GRE-55-11 of Annex 1 to this report.

54. The expert from GTB introduced TRANS/WP.29/GRE/2005/37 proposing the inclusion of requirements of LED into the Regulation. The expert from Germany introduced GRE-55-11 complementing the GTB proposal. The experts from Germany and the Netherlands were opposed to accepting provisions that would allow the installation of combined light sources, i.e. filament lamps and LED, in headlamps. The expert from OICA preferred the combined use of such light sources. The expert from GTB volunteered to prepare a new proposal for the next GRE session on the basis of TRANS/WP.29/GRE/2005/37 and GRE-55-11. GRE experts were invited to transmit their comments and proposals to GTB regarding the combination of light sources in headlamps, the mandatory installation of automatic levelling devices and headlamp washer as well as information about the temperature stability of LED's. GRE agreed to resume consideration of this subject at its next session on basis of the new proposal from GTB.

20.5. Technical amendments to some categories of filament lamps (Regulation No. 37)

Documentation: TRANS/WP.29/GRE/2005/38; TRANS/WP.29/GRE/2005/39.

55. The expert from GTB presented documents TRANS/WP.29/GRE/2005/38 and TRANS/WP.29/GRE/2005/39 proposing technical amendments to some filament lamps. GRE adopted both proposals, not amended. The secretariat was requested to transmit the documents to WP.29 and AC.1, as a part of draft Supplement 27 to the 03 series of amendments to Regulation No. 37 (see. para. 45), for consideration during their March 2006 sessions.

21. NEW ITEMS REGARDING MOTORCYCLE LIGHTING DEVICES

21.1. Rear-registration plate illuminating devices (Regulation No. 50)

Documentation: Informal document No. GRE-55-8 of Annex 1 to this report.

56. The expert from Japan introduced GRE-55-8 proposing requirements for category 2 number plate illumination devices for motorcycles and category 1 or 2 devices for mopeds. GRE welcomed that proposal and requested the secretariat to distribute it with an official symbol for consideration at the next session.

22. LAMPS WITH VARIABLE LUMINOUS INTENSITY

22.1. Direction indicators with variable luminous intensities (Regulation No. 6)

Documentation: TRANS/WP.29/GRE/2005/40.

57. GRE welcomed the GTB proposals on the use of lamps with variable luminous intensities and had an exchange of views on documents TRANS/WP.29/GRE/2005/40, TRANS/WP.29/GRE/2005/41, TRANS/WP.29/GRE/2005/42 and TRANS/WP.29/GRE/2005/43. However, experts raised some concerns that should be clarified before adoption of these proposals. GRE experts were invited to send their comments to the expert from GTB. It was agreed to resume consideration of this subject at the next GRE session.

22.2. Light- signalling lamps with variable luminous intensities (Regulation No. 7)

Documentation: TRANS/WP.29/GRE/2005/41.

58. See para. 57.

22.3. Rear fog lamps with variable luminous intensities (Regulation No. 38)

Documentation: TRANS/WP.29/GRE/2005/42.

59. See para. 57.

22.4. Installation of light-signalling devices with variable luminous intensities
(Regulation No. 48)

Documentation: TRANS/WP.29/GRE/2005/43.

60. See para. 57.

OTHER BUSINESS

23. Convention on Road Traffic (Vienna 1968)

Documentation: TRANS/WP.29/GRE/2005/29.

61. GRE agreed to examine TRANS/WP.29/GRE/2005/29 in detail during its next session. For that purpose, GRE experts were invited to inform or consult their legal experts and colleagues participating in WP.1.

24. General discussion regarding the road map for GRE work

62. GRE had an exchange of views on different experiences on cost-benefit analysis and agreed that an analysis based on a local or regional research could not necessarily be acceptable for all other regions. GRE agreed to resume consideration of this subject at its next session.

25. Guidelines for preparation and submission of documents and Guidelines for UNECE Regulatory Procedures and Transitional Provisions in UNECE Regulations

Documentation: TRANS/WP.29/1042; TRANS/WP.29/1044.

63. The secretariat introduced TRANS/WP.29/1042 "Guidelines for the preparation and submission of documents to WP.29 and to its subsidiary bodies" and TRANS/WP.29/1044 "General guidelines for UNECE regulatory procedures and transitional provisions in UNECE Regulations". Both documents are available at the following WP.29 website:

<http://www.unece.org/trans/main/welcwp29.htm>

GRE experts were invited to follow these guidelines when preparing documents for submission to GRE or another Working Party of WP.29.

ELECTION OF OFFICERS

64. In compliance with Rule 37 of the Rules of Procedure (TRANS/WP.29/690), GRE re-elected Mr. M. Gorzkowski (Canada) as Chairman for the GRE sessions scheduled for 2006.

AGENDA FOR THE NEXT SESSION

65. The secretariat proposed the following provisional agenda for the fifty-sixth session of GRE, scheduled to be held in Geneva from 4 (from 14.30h) to 7 (until 12.30h) April 2006:

1998 AGREEMENT: development of new gtrs.

1958 AGREEMENT: amendments to general Regulations.

1. Regulation No. 10 (Electromagnetic compatibility).
2. Regulation No. 48 (Installation of lighting and light-signalling devices):
 - 2.1. operating voltage for lighting and light-signalling devices;
 - 2.2. emergency stop signal (ESS);

- 2.3. hazard warning signal (automatic activation);
- 2.4. activation of a telltale (including direction indicators with multiple light sources);
- 2.5. time of stop light display activated by the retarder.

3. COLLECTIVE AMENDMENTS

- 3.1. simplification of the approval markings.
- 3.2. clarification of the scope of Regulations on lighting and light-signalling.

4. SIGNALLING AND MARKING DEVICE REGULATIONS

- 4.1. Regulation No. 4 (Illumination of rear registration plates).
- 4.2. Regulation No. 87 (Daytime running lamps).

5. COLOUR SPECIFICATIONS

- 5.1. Collective amendments on colour specifications.
- 5.2. Phantom light and colour washout phenomena in signalling and marking devices.
- 5.3. Contour markings of large vehicles.

6. NEW ITEMS REGARDING SIGNALLING AND MARKING DEVICES
ROAD ILLUMINATION DEVICES REGULATIONS

- 6.1. Determination of cut-off line and harmonized driving beam pattern.
- 6.2. Elimination of Class A headlamps (Regulation No. 48).

7. ADAPTIVE FRONT-LIGHTING SYSTEM (AFS) (Regulations Nos. 45 and 48).

8. NEW ITEMS REGARDING ROAD ILLUMINATION DEVICES (LED modules).

9. NEW ITEMS REGARDING MOTORCYCLE LIGHTING DEVICES

10. LAMPS WITH VARIABLE LUMINOUS INTENSITY

NEW GENERAL ITEMS

OTHER BUSINESS:

1. Proposal by GTB for amendments to the Convention on Road Traffic.
2. General discussion regarding the road map for GRE work.

Annex 1

LIST OF INFORMAL DOCUMENTS **GRE-55-...** DISTRIBUTED WITHOUT AN OFFICIAL SYMBOL DURING THE FIFTY-FIFTH SESSION OF GRE

No.	Transmitted by	Agenda item	Language	Title	Follow-up
1.	Chairman	-	E	Provisional running order	(c)
2.	European Community	5.2.	E	Minutes of the GRE expert meeting on scopes	(c)
3.	CLEPA	13.	E	Proposal for draft amendments to Regulation No. 104	(b)
4.	GTB/OICA	3.3.	E	Proposal for draft amendments to Regulation No. 48	(c)
5.	GTB/OICA	1.2.1.	E	Proposal for draft amendments to Regulation No. 6	(c)
6.	Germany/ Netherlands	10.	E	Proposal for draft amendments to Regulation No. 48	(c)
7.	Japan	3.2.	E	Comments on ESS	(c)
8.	Japan	21.1.	E	Proposal for draft amendments to Regulation No. 50	(b)
9.	CLEPA	20.3.	E	Draft proposal for an amendment to Regulation No. 48	(c)
10.	CLCCR	13.	E	Proposal for an amendment to TRANS/WP.29/GRE/2005/44	(c)
11.	Germany	20.4.	E	Proposal for a supplement to TRANS/WP.29/GRE/2005/37	(c)
12.	France	3.8.	E	Proposal for draft amendments to Regulation No. 48	(d)
13.	OICA	3.2.	E	Proposal for draft amendments to Regulation No. 48	(c)
14.	OICA	19.1.	E	Proposal for draft amendments to Regulation No. 48 (TRANS/WP.29/2005/54)	(b)
15.	OICA	13.	E	Proposal for draft 03 series of amendments to Regulation No. 48	(c)
16.	Germany / GTB	18.1. 18.2.	E	Proposal for amendments to TRANS/WP.29/GRE/2005/34 and TRANS/WP.29/GRE/2004/19/Rev.1	(c)
17.	Chairman	10.	E	Daytime running lights for motorcycles in Australia	(c)

Note:

- (a) Continue consideration at the next GRE session as an informal document.
- (b) Continue consideration at the next GRE session as an official working document.
- (c) Consideration completed or to be superseded.
- (d) Adopted and to be transmitted to WP.29.

Annex 2

AMENDMENTS TO REGULATION No. 48 ADOPTED ON THE BASIS OF GRE-55-12
(see para. 21 of the report)

Paragraph 6.14.2., amend to read:

"6.14.2. Number

Two, the performances of which shall conform to the requirements concerning Class IA or IB retro-reflectors in Regulation No. 3. Additional retro-reflecting devices and materials (**including two retro-reflectors not complying with paragraph 6.14.4. below**), are permitted provided they do not impair the effectiveness of the mandatory lighting and light-signalling devices."

Paragraph 6.15.2., amend to read:

"6.15.2. Number

Two, the performances of which shall conform to the requirements concerning Class IIIA or Class IIIB retro-reflectors in Regulation No. 3. Additional retro-reflecting devices and materials (**including two retro-reflectors not complying with paragraph 6.15.4. below**), are permitted provided they do not impair the effectiveness of the mandatory lighting and light-signalling devices."

Paragraph 6.16.2., amend to read:

"6.16.2. Number

Two, the performances of which shall conform to the requirements concerning Class IA or IB retro-reflectors in Regulation No. 3. Additional retro-reflecting devices and materials (**including two retro-reflectors not complying with paragraph 6.16.4. below**), are permitted provided they do not impair the effectiveness of the mandatory lighting and light-signalling devices."

Paragraph 6.17.2., amend to read:

"6.17.2. Number

Such that the requirements for longitudinal positioning are complied with. The performances of these devices shall conform to the requirements concerning Class IA or IB retro-reflectors in Regulation No. 3. Additional retro-reflecting devices and materials (**including two retro-reflectors not complying with paragraph 6.17.4. below**), are permitted provided they do not impair the effectiveness of the mandatory lighting and light-signalling devices."

Annex 3

AMENDMENTS ADOPTED TO TRANS/WP.29/GRE/2005/44

(see para. 37 of the report)

Page 2, paragraph 2.7.16.4., amend to read:

"2.7.16.4. retro-reflecting materials approved as Class D or E according to Regulation No. 104 and used for other purposes in compliance with national requirements, e.g. advertising."

Page 3, paragraph 5.15., amend to read:

"red **or yellow** to the rear. 5"

Page 3, paragraph 6.21.1.2.2.1., replace "6 m" by "**6,000 mm**"

Page 3, paragraph 6.21.1.2.2.2., amend to read:

"6.21.1.2.2.2. line markings on the cabs of tractor units for semi-trailers, which tractors exceed 6,000 mm in length *"

Page 3, paragraph 5.1.5, Footnote 5, delete the words "**yellow or**".

Page 3, paragraph 6.21.1.2.2.2., Footnote *, delete the square brackets (the figure inside remains).

Page 4, paragraph 6.21.4.1.2., replace "should" by "**shall**".

Page 4, paragraph 6.21.4.1.3., delete the square brackets (the figure inside remains) and replace the reference to footnote * by a new reference to footnote **.

Insert a new footnote **, to read:

**** This provision does apply until 5 years after the official date of entry into force of the 03 series of amendments to this Regulation."**

Page 4, paragraph 6.21.4.2.1., replace "[400] [600] mm" by "**600 mm**".

Page 5, paragraph 6.21.4.2.2., replace "should" by "**shall**".

Page 5, paragraph 6.21.4.2.3., delete the square brackets (the figure inside remains) and replace the reference to footnote * by **.

Page 5, paragraph 6.21.4.3.1., amend to read:

" with the maximum value of 1,500 mm **or, if necessary, to fulfil the requirements of paragraphs 6.21.4.1.2., 6.21.4.1.3., 6.21.4.2.2. and 6.21.4.2.3., or the horizontal positioning of the line marking or the lower element(s) of the contour marking.**"

Page 5, paragraph 6.21.5. and 6.21.5.1.1., delete the square brackets (the figures inside remain).

Page 6, paragraph 6.21.5.1.2. and 6.21.5.2.2., replace "[15] / [45]°" by "**15°**".

Page 6, paragraph 6.21.5.2.1. and 6.21.7.2., delete the square brackets (the figures inside remain).

Page 7, paragraph 12.2. and 12.4., delete the square brackets and replace figures "[36]" by "**12**".

Page 7, paragraph 12.6., delete the square brackets (the figure inside remains) and replace figure "XX" by "**03**".

Page 7, paragraph 12.7., delete the square brackets (the figure inside remains) and delete the text "(national or regional type approval and may refuse)".

Page 8, paragraph 12.8. and Annex 1, item 10.4., delete the square brackets (the figures inside remain).

Page 8, paragraph 12.10., replace "vehicle categories" by "vehicle **types**".

Page 10, the figures, insert dimensions to figures from paragraph 6.21.5.

Annex 4

GRE INFORMAL WORKING GROUPS

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