



**Economic and Social
Council**

Distr.
GENERAL

TRANS/WP.29/GRE/48
29 May 2002

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

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

Working Party on Lighting and Light-Signalling (GRE)

REPORT OF THE WORKING PARTY ON LIGHTING AND LIGHT-SIGNALLING (GRE)
ON ITS FORTY-EIGHTH SESSION

(9 - 12 April 2002)

ATTENDANCE

1. GRE held its forty-eighth session from 9 March (afternoon only) to 12 March (morning only) 2002 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): Belgium; Canada; Czech Republic; Finland; France; Germany; Hungary; Italy; Japan; Netherlands; Norway; Poland; Romania; Russian Federation; Spain; Sweden; United Kingdom; United States of America. A representative of the European Commission (EC) participated. Experts from the following non-governmental organizations also participated: 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).
2. The documents without a symbol distributed during the session are listed in the annex to this report.
3. GRE held a minute of silence in tribute to Mr. Gerard J.M. Meekel (Netherlands), who unexpectedly passed away on 4 February 2002. He was remembered as an efficient Chairman of GRE since its seventeenth session, held in Geneva in May 1987.

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

(a) Definition of a "single lamp"

Documentation: TRANS/WP.29/GRE/2001/39; TRANS/WP.29/GRE/2002/2.

4. Recalling the consideration at the previous session on the basis of document TRANS/WP.29/GRE/2001/39 concerning the revised definition of a "single lamp", the expert from Italy stated his wish to await a detailed examination by GTB.

5. The expert from GTB pointed out that the GTB Working Group for Photometry was still working on this sensitive and difficult subject, especially on the definitions of a stop lamp and a direction indicator. He noted the importance of presenting a scientifically well-based solution and agreed to present the results of the examination in one of the next GRE sessions. The Chairman insisted on the urgency of this subject, important for the industry, and asked GTB to present the results as soon as possible.

6. The expert from Japan presented document TRANS/WP.29/GRE/2002/2 on the clarification of the interpretation of a single lamp for bend lighting purposes.

7. GRE concluded the discussion and noted that an additional light source inside the dipped-beam headlamp or in a lamp reciprocally incorporated with the dipped-beam headlamp to produce the bent lighting was possible without changing the "single lamp" status of such dipped-beam headlamp.

(b) Amendments concerning the AFS systems

Documentation: TRANS/WP.29/GRE/2002/20; informal document No. 28 of annex 1 to this report.

8. GRE agreed to discuss this subject together with agenda item 4.2. on adaptive front-lighting system (see paras. 50 and 51).

(c) Distributed Lighting Systems (DLS)

Documentation: TRANS/WP.29/GRE/2001/31; TRANS/WP.29/GRE/2001/31/Add.1; informal document No. 23 of annex 1 to this report.

9. The expert from OICA introduced informal document No. 23 proposing the change of the word "optical radiation" to "visible radiation" in order to exclude from the scope light sources with infrared or ultraviolet radiation.

10. GRE noted that, at the present time, infrared or ultraviolet radiation were not in the scope of Regulation No. 48, and agreed to adopt the proposed amendments.

11. GRE considered in detail document TRANS/WP.29/GRE/2001/31/Add.1 and agreed on a final consideration at the next GRE session. For that purpose, the secretariat was requested to prepare a revised document with the assistance of GTB. The document will combine documents: informal 23, TRANS/WP.29/GRE/2001/31 and TRANS/WP.29/GRE/2001/31/Add.1. It would reflect changes agreed upon during the session and would include labels for the different parts shown in the figure of annex 10 of the document as well as the provisions for reduced light intensity, in order to avoid glare in case of failure of the lighting unit.

16. The Chairman concluded that consideration of this subject should continue at the next GRE session. GTB was requested to revise the tabled document with regard to a new structure of the provisions. Provisions for contour marking and line marking should be addressed individually and separately from other retro-reflective devices. GTB should take into account the afore-mentioned amendments adopted by GRE.

17. The expert from Poland informed GRE on some investigations concerning the effects of enhanced visibility of M1 and N1 vehicles through the use of additional retro-reflecting devices (informal document No. 12). The different possible colours of the retro-reflective devices were also the subject of that experiment. He agreed to keep GRE informed about the results of the study.

(e) Development of the Regulation

Documentation: TRANS/WP.29/GRE/2002/8; TRANS/WP.29/GRE/2002/14; informal documents Nos. 15, 20 and 31 of annex 1 to this report.

18. Referring to informal document No. 20, the Secretary informed GRE that WP.29 had postponed in its March 2002 session the adoption of document TRANS/WP.29/2002/10 because of non-consent within the European Union. He informed GRE about the WP.29 decision to delete the new inserted provisions concerning the automatic switching (paragraph 5.13.) and said that the secretariat had already submitted the revised document (TRANS/WP.29/2002/10/Rev.1) to WP.29, in order to be considered at its one-hundred-and-twenty-seventh session, under agenda item 4.2.9.

19. The expert from Japan introduced document TRANS/WP.29/GRE/2002/8, proposing the mandatory presence of S3 stop lamps on N1 category vehicles and extending the maximum height limitation for front fog lamps on N1 vehicles. After a detailed discussion, GRE agreed to postpone the discussion on paragraph 6.7.1. (mandatory presence of S3 on N1 vehicles) until the next GRE session and to adopt the extension of maximum height requirement of front fog lamps to N1 category vehicles. The secretariat was requested to submit to WP.29 and AC.1 only the amendments to paragraph 6.3.4.2. as a proposal for draft amendments to Regulation No. 48, for consideration during their sessions in November 2002. Proposed amendment to para. 6.7.1. will be discussed during the next GRE session.

20. The expert from GTB presented document TRANS/WP.29/GRE/2002/14 on the safe installation of reversing lamps with regard to the new value for the maximum luminous intensity. After a detailed discussion, he agreed to reconsider this subject and presented a revised proposal.

21. Under the condition of adding transitional provisions (i.e. mandatory installation 3 years after entering into force), GRE adopted the revised document TRANS/WP.29/GRE/2002/14/Rev.1 (informal document No. 31) on the installation of lighting and light-signalling devices with the following amendments:

Paragraph 6.4.3., amend to read (delete subparagraphs 6.4.3.1. and 6.4.3.2.):

"6.4.3. Arrangement

No special requirement."

Paragraph 6.4.4.3., amend to read:

"6.4.4.3. In length: at the rear of the vehicle.

However, **if installed**, the two optional devices mentioned in paragraph 6.4.2.2. **shall** be fitted on the side **or rear** of the"

22. GRE requested the secretariat to include the transitional provisions (with the assistance of GTB, providing the necessary wordings to the secretariat not later than June 2002) and to submit the document to WP.29 and AC.1 as a proposal for draft amendments to Regulation No. 48, for consideration during their sessions of November 2002.

23. With regard to informal document No. 15 tabled by the expert from the Netherlands, the Chairman proposed to consider it at the next GRE session in September/October 2002. For that purpose, the secretariat was requested to distribute informal document No. 15 with an official symbol. (Note by the secretariat: see document TRANS/WP.29/GRE/2002/25).

AMENDMENTS TO ECE REGULATIONS

(a) Regulation No. 7 (Position, stop, and end-outline marker lamps)

Documentation: TRANS/WP.29/GRE/2001/29; informal document No. 25 of annex 1 to this report.

24. The expert from GTB informed GRE that the proposal concerning the use of changeable "light source modules" instead of non-replaceable light sources (TRANS/WP.29/GRE/2001/29) would allow replacing a defective module only instead of the complete lamp.

25. The expert from Germany introduced informal document No. 25 amending the GTB proposal in order to clarify unambiguously the responsibilities of the module device manufacturer.

26. The experts from Italy suggested additional amendments to the document concerned.

27. The Chairman proposed to continue the consideration of the subject at the next GRE session and requested the experts from Germany and Italy to prepare and submit to the secretariat a new consolidated document.

(b) Regulation No. 10 (Electromagnetic compatibility)

Documentation: TRANS/WP.29/GRE/2002/4; TRANS/WP.29/GRE/2002/5.

28. The expert from Japan presented document TRANS/WP.29/GRE/2002/4 concerning the disparities of FM bands standardized in Europe and other regions of the World and proposed to change the frequency range for testing to 76-108 MHz instead of 88-108 MHz.

29. As no common agreement was found in GRE, the Chairman invited the experts to continue their study of document TRANS/WP.29/GRE/2002/4, and proposed to resume its consideration at the next GRE session.

30. Considering document TRANS/WP.29/GRE/2002/5, tabled by France, on the clarification of the requirements for the tests of electromagnetic compatibility of long vehicles with regard to the test facilities dimensions, GRE agreed to keep the document on the agenda and to wait for the publication of the corresponding European Union Directive.

(c) Regulations Nos. 50, 53 and 74

Documentation: TRANS/WP.29/GRE/2001/25; TRANS/WP.29/GRE/2001/26;
TRANS/WP.29/GRE/2001/27; informal document No. 9 of annex 1 to this report.

31. After the initial consideration of the proposal by IMMA, relating to the clarification of the fitting of new categories of headlamps on motorcycles (informal document No. 9 concerning draft amendments to Regulations Nos. 53 and 74), the Chairman suggested to GRE to continue its consideration at the next session. The secretariat was requested to distribute informal document No. 9 with official symbols (Note by the secretariat: see documents TRANS/WP.29/GRE/2002/26 and TRANS/WP.29/GRE/2002/27).

32. GRE also discussed documents TRANS/WP.29/GRE/2001/25, TRANS/WP.29/GRE/2001/26 and TRANS/WP.29/GRE/2001/27 on draft amendments to Regulations Nos. 50, 53 and 74 (use of amber colour front position lamps for motorcycles). GRE adopted the documents but agreed to postpone their submission to WP.29 and to keep this subject on the GRE agenda for the next session.

(d) Regulation No. 65 (Special warning lamps)

Documentation: TRANS/WP.29/GRE/2002/3; TRANS/WP.29/GRE/2003/3/Add.1; informal documents No. 2 of annex 1 to this report.

33. The expert from the United Kingdom presented briefly informal document No. 2 on improved measures for the motor vehicle conspicuity by warning beacons.

34. GRE agreed to take into account the improved measures and requested France, Italy and the United Kingdom to prepare a consolidated document, preferably for consideration at the next GRE session.

(e) Regulation No. 86 (Installation of lighting and light-signalling devices for tractors)

Documentation: Informal document No. 3 of the forty-seventh GRE session.

35. GRE agreed to study the question (tabled by Belarus in informal document No. 3 of the forty-seventh GRE session) concerning the maximum design speed of tractors. The expert from Poland volunteered to submit to the secretariat a proposal for draft amendments to the Regulation, based on the afore-mentioned informal document, for consideration in the next GRE session.

(f) Regulation No. 87 (Daytime running lamps)

Documentation: TRANS/WP.29/GRE/2002/7.

36. GRE considered and adopted document TRANS/WP.29/GRE/2002/7 on daytime running lamps and agreed to submit it to WP.29 and AC.1, as a proposal for draft Supplement 5 to Regulation No. 87, for consideration at their sessions of November 2002.

(g) Regulation No. 98 (Headlamps with gas-discharge light sources)

Documentation: TRANS/WP.29/GRE/2001/30; TRANS/WP.29/GRE/2002/9;
TRANS/WP.29/GRE/2002/11; informal document No. 10 of the forty-seventh GRE
session.

37. Due to lack of time, the consideration of this subject was postponed to
the forty-ninth GRE session.

(h) Regulation No. 112 (Headlamps emitting an asymmetrical passing beam)

Documentation: TRANS/WP.29/GRE/2002/12.

38. Due to lack of time, the consideration of document TRANS/WP.29/GRE/2002/12
was postponed to the forty-ninth GRE session.

(i) Regulation No. 113 (Headlamps emitting a symmetrical passing beam)

Documentation: TRANS/WP.29/GRE/2002/6.

39. GRE considered and adopted document TRANS/WP.29/GRE/2002/6 on headlamps
emitting a symmetrical passing beam and requested the secretariat (with the
assistance of the Russian delegation, providing the necessary corrections to
the Russian text of the Regulation not later than June 2002) to submit the
document to WP.29 and AC.1 as a draft Corrigendum 1 to Regulation No. 113, for
consideration during their sessions of November 2002.

(j) Regulation No. 23 (Reversing lamps)

Documentation: TRANS/WP.29/GRE/2002/13.

40. Document TRANS/WP.29/GRE/2002/13 on reversing lamps was considered in
detail by GRE and it was adopted with the following amendment:

Paragraph 3.6., inserted new paragraph should be deleted.

41. GRE requested the secretariat to submit the adopted document (see para. 40
above) to WP.29 and AC.1 as a proposal for draft amendments (Supplement 8) to
Regulation No. 23, for consideration during their sessions of November 2002.

(k) Measurement of luminance of "slightly curved registration plates"

Documentation: TRANS/WP.29/GRE/2002/15; TRANS/WP.29/GRE/2002/16.

42. Due to lack of time, GRE agreed to postpone the consideration of both
documents to the forty-ninth GRE session.

INTERNATIONAL HARMONIZATION OF LIGHTING AND LIGHT-SIGNALLING INSTALLATION REQUIREMENTS

Documentation: TRANS/WP.29/GRE/2001/6; informal documents Nos. 1, 6, 7, 8,
13, 16, 22, 22R1, 24, 26 and 27 of annex 1 to this report.

43. The Chairman reported on the results of the informal meeting held in
Geneva from 8-10 January 2002 (informal document No. 1).

44. The expert from Canada thanked GRE for all comments and proposals tabled
by GRE participants relating to the proposal of a candidate global regulation
on the installation of lighting and light-signalling devices. He pointed out

that informal document No. 6 (tabled by Canada and based on document TRANS/WP.29/GRE/2001/6) would be revised, taking into consideration the comments and proposals mentioned in informal documents Nos. 7, 8, 13, 24 as well as the second part of informal document No. 16. He agreed to reissue a revised document for consideration by GRE in its September/October 2002 session.

45. The Chairman briefed GRE about the recommendations of the SAE task force on headlamp mounting height (informal document No. 26) as well as on the SAE technical report on headlamp mounting height for passenger and pickup truck vehicles (informal document No. 27). Both informal documents were not intended to be put on the website of WP.29/GRE and were distributed to GRE experts for information only.

46. The Chairman introduced informal document No. 22 on the scope and stringency of global technical regulations (gtr's) under the 1998 Global Agreement. After the discussion, he agreed to revise the document.

47. After reconsideration and respecting the study reservation of the delegates from France, Italy and the United States of America, GRE agreed to submit the revised informal document No. 22R1 for consideration (as informal document tabled by the Chairman) to WP.29 and AC.3 at their sessions in June 2002. (Note by the secretariat: the Chairman revised the informal document No. 22R1 including GRE comments. The new document was electronically transmitted to GRE experts for comments. The resulting document was submitted to WP.29 and AC.3 for consideration. See informal document No. 4, to be considered during the one-hundred-and-twenty-seventh session of WP.29, under agenda item 5.2. and by AC.3 under agenda item B.2.1.4.)

PROPOSALS FOR NEW ECE REGULATIONS

(a) Cornering lamps

Documentation: TRANS/WP.29/GRE/2001/35.

48. The work on this item started with detailed consideration of the proposal by GTB concerning the approval of cornering lamps for power-driven vehicles (TRANS/WP.29/GRE/2001/35). GRE adopted the proposal with the amendments reproduced in annex 2 of this report.

49. GRE requested the secretariat to transmit the adopted document (see para. 48 above) to WP.29 and AC.1 as a proposal for a new ECE Regulation, for consideration during their sessions of November 2002.

(b) Adaptive Front-lighting System (AFS)

Documentation: TRANS/WP.29/GRE/2002/18; TRANS/WP.29/GRE/2002/19; informal document No. 28 of annex 1 to this report.

50. In addition to the outdoor demonstration on Wednesday evening, the expert from GTB gave a complete presentation of adaptive front lighting system (AFS), and especially of the definitions, functions, appearance, photometry, safety and type approval documentation (see informal document No. 28). He suggested having an informal meeting on AFS, in order to finalize the specifications for adaptive front-lighting systems (TRANS/WP.29/GRE/2002/18).

51. The Chairman thanked the expert for the detailed presentations. GRE agreed on the AFS informal meeting, which is intended be held in Frankfurt (Germany) from 2 to 4 July 2002, subject to confirmation by WP.29 at its June 2002 session.

HARMONIZED PASSING BEAM PATTERN

(a) Asymmetrical passing beam

Documentation: TRANS/WP.29/GRE/1997/14; TRANS/WP.29/GRE/1999/18; informal documents Nos. 14 and 18 of annex 1 to this report.

52. The Chairman of the GTB Coordination Committee presented informal documents Nos. 14 and 18 concerning the GTB proposal for a harmonized passing beam specification. He suggested to present the summary of the GTB proposal and to prepare for the next GRE session two proposals to amend Regulations Nos. 98 and 112.

53. GRE agreed to discuss the two proposals together with formal document TRANS/WP.29/GRE/2001/28 at the next GRE session (see para. 56).

(b) Symmetrical passing beam

Documentation: TRANS/WP.29/GRE/2000/24, TRANS/WP.29/GRE/2001/24; informal documents Nos. 10 and 11 of annex 1 to this report.

54. The expert from IMMA introduced informal documents Nos. 10 and 11 proposing amendments to Regulation No. 113 in order to introduce the specifications of a harmonized driving beam pattern and a symmetrical passing beam pattern. He also gave a presentation comparing different passing and driving beam patterns.

55. After a short discussion, IMMA was requested to prepare a formal document on the base of informal documents Nos. 10 and 11. GRE experts were requested to submit to IMMA additional comments related to informal documents Nos. 10 and 11 not later than end of June 2002. GRE agreed to consider this document in the GRE session in September/October 2002.

(c) Harmonized driving beam pattern

Documentation: TRANS/WP.29/GRE/2001/28.

56. Due to lack of time, this subject was not discussed and GRE agreed to resume this item at the forty-ninth GRE session, under the agenda item concerning Regulations Nos. 98 and 112.

OTHER BUSINESS

(a) Glare of headlamps

57. The expert from the United States of America informed GRE about investigations of the glare of headlamps, performed as a consequence of multiple complaints from citizens. He said that the results would soon be published in a progress report.

58. The expert from Canada draw attention to the fact that, after several years of use of a headlamp, damage (e.g. by impact of small stones) would occur on the surface of lens. This damage would increase the glare of headlamp.

59. The Chairman suggested to keep this subject on the agenda and to wait for the results of the progress report from the United States of America. CLEPA was requested to study the possible replaceability of lenses of headlamps especially headlamps with the gas-discharge light sources.

(b) Conditions for the illumination of stop lamps

Documentation: TRANS/WP.29/GRE/1999/17; TRANS/WP.29/GRE/2000/25. Also distributed were informal documents Nos. 1 and 2 of the forty-fifth GRE session and informal document No. 4 of the forty-fourth GRE session.

60. The expert from OICA requested document TRANS/WP.29/GRE/1999/17 to be taken off the GRE agenda. The expert from the United States of America asked to take off the agenda informal document No. 4 of the forty-fourth GRE session and informal documents Nos. 1 and 2 of the forty-fifth GRE session.

61. The expert from the European Commission introduced informal document No. 21 proposing to amend Regulation No. 48 in order to activate the stop lamps on vehicles, if applying an endurance brake (e.g. retarder). This document had already been tabled in the last GRRF session in February 2002 as informal document No. 23.

62. The Secretary pointed out that the document was still under discussion in GRRF and that GRE had to wait for the conclusion of the conditions for the activation of stop lamps.

63. After a discussion, the Chairman suggested clarifying with the Chairman of GRRF the follow-up to be given to this subject. GRE agreed that the aforementioned amendments have to be reconsidered at the next GRE session in September/October 2002. For that purpose, the secretariat was requested to distribute informal document No. 21 with an official symbol, including the definition of "stop lamp" from informal document No. 3, tabled by GTB, and considering the definition of "partial braking" in Regulation No. 13. (Note by the secretariat: see document TRANS/WP.29/GRE/2002/28).

64. The expert from GTB recalled his introduction of document TRANS/WP.29/GRE/2000/25 concerning the guidelines for the submission and evaluation of petitions concerning international automotive lighting regulations. The Chairman thanked GTB for the document and he suggested to insert and to keep it under a new agenda item "New Inventions" for the next GRE sessions. GRE agreed to finalize and to adopt the guidelines at the next GRE session and to submit it for further consideration to WP.29.

(c) Emergency brake light display

Documentation: TRANS/WP.29/GRE/2002/21, TRANS/WP.29/GRE/2002/22; informal documents Nos. 17 and 29 of annex 1 to this report.

65. The Chairman thanked the experts from Germany for the outdoor presentation on Wednesday evening of the emergency brake light display on motor vehicles, intended to reduce the danger of rear-end accidents.

66. The delegate from Germany introduced documents TRANS/WP.29/GRE/2002/21 and TRANS/WP.29/GRE/2002/22 relating to necessary amendments for adapting provisions of Regulations No. 7 and No. 48 for allowing the automatic activation and deactivation of the emergency brake light display on motor vehicles.

67. The Chairman recalled that, according to the first presentation in the last GRE session, the intention had been to increase the illuminated surface of the light-signalling device (single lamp), but the outdoor presentation showed the illumination of an additional set of stop-lamps.
68. The expert from OICA endorsed, in principle, the introduction of the automatic signalling of an emergency braking by stop-lamps, but requested to have a clear situation for the interim period and, as the current situation did not cause any problem, not to jeopardize existing systems (i.e. vehicles equipped with conventional stop-lamps should not be presumed not to brake).
69. The expert from France presented informal document No. 29 proposing to amend the provisions relating to electrical connections in order to operate the hazard-warning signal automatically, in case of emergency braking. She pointed out that this solution could immediately be introduced, as the installation of the hazard warning signal is already mandatory on all vehicles.
70. The expert from Italy referred to informal document No. 17 and stated that he would prefer to introduce the emergency braking signalisation by use of the hazard-warning signal, as the most practical and economic solution.
71. The expert from the United Kingdom endorsed the proposals by France and Italy, but stated his reservation on the value of deceleration of 7 m/s^2 ; a deceleration which might hardly be achievable by vehicles fitted with an antilock braking system.
72. The expert from OICA drew the attention of GRE to recent statistics, indicating that only 3 of 1000 braking applications fulfil this deceleration requirement. He offered to present the research results of some driving simulations at the next GRE session.
73. Following the Chairman's suggestion, the delegates from France and Italy agreed to table at the next session a new joint working document on their proposal and to take into consideration the use of the hazard warning signal also for the case of emergency braking.
74. The experts from Japan and from the United States of America informed GRE about current research activities relating to emergency braking signalisation in their countries.
75. The expert from the United States of America pointed out the high sensitivity of this subject and stated that the actual flashing frequency of the hazard-warning signal was not high enough. He also pointed out that most serious rear-end collisions involve already stopped vehicles, not a vehicle which is decelerating.
76. The expert from CLEPA recalled a proposal tabled some years ago and concerning the flashing rate and suggested to reactivate that document.
77. The expert from Germany stated that some questions had been taken into consideration in their analyses (such as operating the hazard-warning signal or the stop lamp, flashing frequency, activation/deactivation). He offered to provide the detailed results to GRE.

78. The Chairman proposed to resume the consideration of both proposals at the next GRE session: the proposal by Germany and a common proposal by France/Italy. In order to elaborate an unambiguous solution for an emergency braking signalisation system, he reminded all GRE participants to rethink the proposals with regard to the:

- (i) cost-efficiency of such a system,
- (ii) light-signalising device ("red coloured" stop-lamps or "amber coloured" hazard warning signal),
- (iii) illuminating surface (single lamp or additional lamp),
- (iv) mandatory or optional installation of emergency braking signalisation,
- (v) value of deceleration at which the system has to operate,
- (vi) flashing rates of the light-signalising device,
- (vii) vehicles already stopped in the traffic as result of emergency or ordinary deceleration.

(d) Possible amendments to the Convention on Road Traffic (Vienna 1968)

Documentation: Informal document No. 3 of annex 1 to this report.

79. With regard to present and potential future conflicts between the Vienna Convention and ECE lighting Regulations, the Chairman of GTB presented informal document No. 3 containing the GTB proposal to amend the 1968 Vienna Convention on Road Traffic.

80. The Chairman requested the secretariat to prepare a formal document on the base of informal document No. 3 and suggested to consider this subject at the next GRE session. (Note by the secretariat: see document TRANS/WP.29/GRE/2002/29).

(e) Technical requirements regarding the use of head lighting during daytime

Documentation: TRANS/WP.1/2002/12; informal document No. 5 of annex 1 to this report.

81. Referring to the results of the questionnaire on daytime running lamps (annexes 1 to 3 of document TRANS/WP.1/2002/12) the expert from IMMA introduced informal document No. 5 relating to the ACEM commitment to adopt an automatic headlamp "ON" specification.

82. GRE agreed to consider this subject at the next GRE session. The secretariat was requested to distribute informal document No. 5 with an official symbol. (Note by the secretariat: see document TRANS/WP.29/GRE/2002/30).

(f) 42 Volt electric systems for motor vehicles

Documentation: Informal document No. 5 of the forty-seventh GRE session.

83. The expert from OICA noted the complexity of the introduction of the 42 Volt electric systems and pointed out the consequences in case of introduction of the new electric systems.

84. The expert from GTB indicated that this subject was in the process of consideration within GTB and that the results should soon be available. On the invitation of the Chairman, he agreed to prepare a GRE formal document reflecting these results and to submit it to the secretariat not later than June 2002 for consideration at the next GRE session. The Chairman asked GTB to add a list of all Regulations regarding light and light signalling devices,

which might need to be amended in the case of the 42 Volt electric system introduction.

- (g) Amendments to Regulations Nos. 3, 7, 38, 50, 77 and 91 (red light trichromatic coordinates)

Documentation: TRANS/WP.29/GRE/2002/17.

85. The expert from GTB presented document TRANS/WP.29/GRE/2002/17 amending the trichromatic coordinates for red light in Regulations Nos. 3, 7, 38, 50, 77 and 91. GRE adopted the collective amendments and requested the secretariat to transmit the respective documents for consideration to WP.29 and AC.1 at their November 2002 sessions.

- (h) Regulation No. 37 (Filaments lamps)

Documentation: TRANS/WP.29/GRE/2002/23.

86. The expert from IEC presented document TRANS/WP.29/GRE/2002/23, intended to correct some provisions of Regulation No. 37. GRE adopted the document and agreed to transmit it to WP.29 and AC.1 as draft Corrigendum to Revision 3 of Regulation No. 37, for consideration at their November 2002 sessions.

- (i) Interpretation of ECE "fast track" decisions on bend lighting

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

87. The expert from CLEPA introduced informal document No. 19 on the interpretation of the failure mode provisions for bend lighting systems and referred to documents TRANS/WP.29/GRE/2001/10, TRANS/WP.29/2002/11 and TRANS/WP.29/2002/13. He explained the five different possibilities of compliance with the failure mode provisions specified in these documents. (Note by the secretariat: documents TRANS/WP.29/2002/11 and TRANS/WP.29/2002/13 were adopted by WP.29 and AC.1 at their March 2002 sessions; document TRANS/WP.29/GRE/2001/10 is part of the revised document TRANS/WP.29/2002/10/Rev.1 scheduled to be considered by WP.29 and AC.1 at their June 2002 sessions under agenda item 4.2.9.)

88. As no consent on the interpretation of the failure mode provisions was reached in GRE, the Chairman suggested using informal document No. 19, together with the above-mentioned documents as a base for resumed consideration at the next GRE session in September/October 2002.

AGENDA FOR THE NEXT SESSION

89. For the forty-ninth session to be held in Geneva, from 30 September (14.30 h) to 4 October 2002 (12.30 h), GRE agreed on the following agenda: 1/

1. REGULATION No. 48 - Development (Installation of lighting and light-signalling devices)
 - 1.1. Definition of a "single lamp"
 - 1.2. Distributed Lighting Systems (DLS)
 - 1.3. Installation of retro-reflective markings and materials
 - 1.4. Development of the Regulation

2. AMENDMENTS TO ECE REGULATIONS
 - 2.1. Regulation No. 7 (Position, stop, and end-outline marker lamps)
 - 2.2. Regulation No. 10 (Electromagnetic compatibility)
 - 2.3. Regulations Nos. 50, 53 and 74
 - 2.4. Regulation No. 65 (Special warning lamps)
 - 2.5. Regulation No. 86 (Installation of lighting and light-signalling devices for tractors)
 - 2.6. Regulation No. 98 (Headlamps with gas-discharge light sources)
 - 2.7. Regulation No. 112 (Headlamps emitting an asymmetrical passing beam)
 - 2.8. Regulation No. 113 (Headlamps emitting a symmetrical passing beam)
 - 2.9. Measurement of luminance of "slightly curved registration plates"
3. PROPOSALS FOR NEW ECE REGULATIONS (1958 Agreement)
 - 3.1. Adaptive Front-lighting System (AFS)
 - 3.2. Amendments concerning the AFS
4. PROPOSALS FOR NEW GLOBAL TECHNICAL REGULATIONS (1998 Agreement)
 - 4.1. Installation requirements for lighting and light-signalling devices
5. NEW INVENTIONS
 - 5.1. Guidelines for the submission and evaluation of petitions concerning international automotive lighting regulations
6. OTHER BUSINESS
 - 6.1. Glare of headlamps
 - 6.2. Conditions for the illumination of stop lamps
 - 6.3. Emergency brake light display
 - 6.4. Proposal for amendments to the Convention on Road Traffic (Vienna 1968)
 - 6.5. Technical requirements regarding the use of headlighting during daytime
 - 6.6. 42 Volt electric systems for motor vehicles
 - 6.7. Interpretation of ECE "fast track" decisions on bend lighting

1/ As part of the secretariat's efforts to reduce expenditure, all the official documents distributed prior to the session by mail or placed on the ECE web-site (<http://www.unece.org/trans/main/welcwp29.htm>) 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.

Annex 1

LIST OF INFORMAL DOCUMENTS DISTRIBUTED WITHOUT A SYMBOL DURING THE SESSION

No.	Transmitted by	Agenda item	Language	Title
1.	Chairman	3.	E	Report of GRE on its informal meeting, held in Geneva from 8 to 10 January 2002
2.	United Kingdom	2.4.	E	Motor vehicle conspicuity: Warning beacons
3.	GTB	6.4.	E	GTB proposal to amend the 1968 Vienna Convention on Road Traffic
4.	CLCCR	1.4.	E	Comment on installation of lighting and light-signalling devices (document TRANS/WP.29/GRE/2001/13/Rev.1)
5.	ACEM/IMMA	6.5.	E	ACEM commitment on the adoption of an automatic headlamp ON specification
6.	Canada	3.	E	Proposal for a candidate draft global technical regulation: Uniform provisions concerning vehicles with regard to the installation of lighting and light-signalling devices
7.	Japan	3.	E	Proposal concerning the mandatory installation of middle-side direction indicator lamps on large vehicles
8.	Japan	3.	E	Proposal concerning the lighting of the stop lamps concurrent with retarder operation
9.	IMMA	2.3.	E	Proposal for draft amendments to Regulation Nos. 53 and 74
10.	IMMA	5.2.	E	Proposal for draft amendments to Regulation No. 113 (driving beam pattern)
11.	IMMA	5.2.	E	Proposal for draft amendments to Regulation No. 113 (passing beam pattern)
12.	Poland	1.4.	E	Proposal to study the effects of enhanced visibility of M1, N1 vehicles through the use of additional retro-reflecting devices with a view to amend Regulation No. 48
13.	Japan	3.	E	Japan's comment on the draft gtr for installation of lighting and light-signalling devices
14.	GTB	5.	E	The GTB proposal for a harmonized passing beam specification

No.	Transmitted by	Agenda item	Language	Title
15.	Netherlands	1.5.	E	Proposal for draft amendments to Regulation No. 48
16.	Italy	3.	E	Draft gtr "Installation of lighting and light-signalling devices on vehicles" (comments and proposals)
17.	Italy	6.3.	E	Emergency braking signalisation; considerations on the German proposals
18.	GTB	5.	E	Summary of the GTB proposal for a harmonized passing beam specification
19.	Clepa	6.9.	E	Interpretation of ECE "fast track" decisions on bend lighting
20.	Secretariat	1.5.	E	Decision by WP.29 to amend document TRANS/WP.29/2002/10: Proposal for draft Supplement 4 to the 02 series of amendments to Regulation No. 48
21.	European Commission	6.2.	E	Proposal to amend UN-ECE Regulation No. 48 (and gtr No. 48)
22.& 22R1	Chairman	3.	E	Scope and stringency of global technical regulations (gtr's) under the 1998 Agreement
23.	OICA	1.3.	E	Proposal for an amendment to paragraph 2.7.1 of document TRANS/WP.29/GRE/2001/31
24.	OICA	3.	E	Proposal for draft amendment to document TRANS/WP.29/GRE/2001/6 (gtr installation of light)
25.	Germany	2.1.	E	Amendments to Regulation No. 7
26.	SAE	3.	E	Recommendations of the SAE task force on headlamp mounting height
27.	SAE	3.	E	Headlamp mounting height for passenger and pickup truck vehicles
28.	GTB	1.2./ 4.2.	E	Presentation: Adaptive front lighting systems (AFS)
29.	France	6.3.	E/F	Regulation No. 48: Electrical connections
30.	GTB	1.2./ 4.2.	E	AFS - History and scientific back-up
31.	GTB	1.5.	E	Proposal for draft amendments to Regulation No. 48

No.	Transmitted by	Agenda item	Language	Title
Redistribution of informal documents from the previous sessions of GRE (referring to agenda items of the current session)				
<u>47th GRE session</u>				
3.	Belarus	2.5.	E	Proposal for draft amendments to Regulation No. 86
10.	France	2.7.	E	Information concerning the approval of a headlamp, passing and driving beams according Regulation No. 98
5.	Secretariat	6.6.	E	Revision of standards for 42 Volt automotive electrical systems
<u>45th GRE session</u>				
1.	USA	6.2.	E	Interpretation of S5.5.4., FMVSS No. 108 (an original NHTSA interpretation file)
2.	USA	6.2.	E	Interpretation of S5.5.4., FMVSS No. 108 (an original NHTSA interpretation file)
<u>44th GRE session</u>				
4.	USA	6.2.	E	Request for Interpretation & Petition for Rulemaking - FMVSS 108 (Petition concerning brake lamp illumination requirements)

Annex 2

(AMENDMENTS TO DOCUMENT TRANS/WP.29/GRE/2001/35 ADOPTED BY GRE)

Title, amend to read (deleting of the words "MOTOR CYCLES AND THEIR TRAILERS"):

"UNIFORM PROVISIONS CONCERNING THE APPROVAL OF CORNERING LAMPS
FOR POWER-DRIVEN VEHICLES"

General amendment, throughout the document amend the word "calorimetric" by "colorimetric"

Paragraph 1.2., should be deleted.

Paragraphs 1.3. (former) to 1.3.4., renumber as paragraphs 1.2. to 1.2.4

Paragraph 4.3., amend to read:

".... in the space referred to in paragraph **3.3.** above,"

Paragraph 3.3.1.1. (immediately after para. 4.3.1.), correct the paragraph number to read 4.3.1.1.

Paragraph 4.3.2., amend to read:

".... consisting of **the letter** "K" as shown"

Paragraph 4.3.3., amend to read:

".... the additional **letter** "K"."

Paragraph 4.6., amend to read:

"...., in which the letter **"K"** indicates"

Paragraph 6.1., amend to read:

"... specified in **paragraphs 6.2. and 6.3.** **The intensity** shall be ..."

Paragraph 6.2., amend to read:

"6.2. For the left-hand device, the minimum intensity of the light at the specified measuring points shall be as follows:

(1) 2.5D - 30L: 240 cd

...."

Paragraph 6.3., amend to read:

".... above the horizontal plane, **600 cd on the 0.57D-L and R line and 10,000 cd below this line.**"

Paragraph 8.1., amend to read (deleting of words "or yellow"):

"... shall be white."

Annex 1,

Item 9., delete the line "Colour of light emitted: white/yellow" and the reference to the footnote

Annex 2,

Specification near figure 1 on minimal height "a" of marking, amend to read:

"a = 5 mm min."

Note after figure 2, amend to read:

".... the device was approved **in Japan** (E43)"

Annex 3,

Paragraph 2., after the figure, amend to read:

".... = **Minimum intensity** in cd
...."

Paragraph 3.2., amend to read (alignment with paras. 3.2. and 3.3. of Annex 4 of document TRANS/WP.29/2001/43, adopted during the one-hundred-and-twenty-fifth session of WP.29):

"3.2. For replaceable filament lamps:

when equipped with filament lamps at 6.75 V, 13.5 V or 28.0 V the luminous intensity values produced shall be corrected. The correction factor is the ratio between the reference luminous flux and the mean value of the luminous flux found at the voltage applied (6.75 V, 13.5 V or 28.0 V). The actual luminous fluxes of each filament lamp used shall not deviate more than "5 per cent from the mean value. Alternatively a standard filament lamp may be used in turn, in each of the individual positions, operated at its reference flux, the individual measurements in each position being added together."

Add a new paragraph 3.3., to read:

"3.3. For any signalling lamp except those equipped with filament lamp(s), the luminous intensities, measured after one minute and after 30 minutes of operation, shall comply with the minimum and maximum requirements. The luminous intensity distribution after one minute of operation can be calculated from the luminous intensity distribution after 30 minutes of operation by applying at each test point the ratio of luminous intensities measured at HV after one minute and after 30 minutes of operation."

Annex 4,

Paragraph referring to "Yellow:" , delete the whole paragraph including the 3 subsequent lines referring to the trichromatic coordinates.

Paragraph 1), correct to read:

".... at a colour temperature of 2,856 K,"

Paragraph 2), correct to read:

".... subjected to **the** intensity, which produces the same **colour** as the **illuminant** A of the CIE."
