Economic Commission for Europe
Inland Transport Committee
World Forum for Harmonization of Vehicle Regulations
Working Party on Lighting and Light-Signalling
Seventy-second session
Geneva, 20 - 22 October 2014

Report of the Working Party on Lighting and Light-Signalling on its seventy-second session

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I. Attendance

1. The Working Party on Lighting and Light-Signalling (GRE) held its seventy-second session from 20 to 22 October 2014 in Geneva, under the chairmanship of Mr. M. Gorzkowski (Canada). Experts from the following countries participated in the work according to Rule 1 (a) of the Rules of Procedure of the World Forum for Harmonization of Vehicle Regulations (WP.29) (TRANS/WP.29/690, Amend. 1 and 2): Austria; Belgium; Canada; China; Czech Republic; Finland; France; Germany; Hungary;
India; Italy; Japan; Netherlands; Norway; Poland; Republic of Korea; Russian Federation; Serbia; Spain; Sweden; Turkey and the United Kingdom of Great Britain and Northern Ireland (UK). Experts from the European Commission (EC) participated. Experts from the following non-governmental organizations also took part in the session: European Association of Automotive Suppliers (CLEPA); International Automotive Lighting and Light Signalling Expert Group (GTB); International Electrotechnical Commission (IEC); International Motorcycle Manufacturers Association (IMMA); International Organization of Motor Vehicle Manufacturers (OICA) and Vehicle Lighting Association. Upon invitation of the Chair, the experts from the European Committee of Associations of Manufacturers of Agricultural Machinery (CEMA) participated.

II. Adoption of the agenda (agenda item 1)

Documentation:   ECE/TRANS/WP.29/GRE/2014/14 and Add.1,
Informal documents GRE-72-01, GRE-72-13 and GRE-72-18

2. GRE considered and adopted the agenda proposed for the seventy-second session (ECE/TRANS/WP.29/GRE/2014/1 and Add.1) as reproduced in GRE-72-01 (including the informal documents distributed during the session).

3. GRE also adopted the running order for the session as proposed in GRE-72-13.

4. The list of informal documents is reproduced in Annex I to the report. The list of GRE informal groups is reproduced in Annex XIII to the report. GRE took note of the official document submission deadline of 16 January 2015 for the April 2015 session of GRE (GRE-72-18).

III. 1998 Agreement - Global Technical Regulations (GTR) (agenda item 2)

Documentation:   ECE/TRANS/WP.29/GRE/71, para. 5

5. In absence of new proposals, GRE agreed to defer consideration of this item to its next session. GRE noted that the United States of America may be interested in developing a GTR in the future, given the ongoing activities on simplification of lighting and light-signalling Regulations and the EU-USA trade negotiations.

IV. 1997 Agreement – Rules (agenda item 3)

6. No new information was reported under this agenda item.

V. 1958 Agreement – Regulations (agenda item 4)

A. Regulation Nos. 37 (Filament lamps), 99 (Gas discharge light sources) and 128 (Light emitting diodes light sources)

Documentation:   ECE/TRANS/WP.29/GRE/2014/20,
ECE/TRANS/WP.29/GRE/2014/24,
ECE/TRANS/WP.29/GRE/2014/29, Informal document GRE-72-08

7. The expert from GTB proposed to introduce new categories of light sources and minor corrections into Regulations Nos. 37, 99 and 128 (ECE/TRANS/GRE/2014/20,
ECE/TRANS/GRE/2014/24 and ECE/TRANS/GRE/2014/29), as well as to update references to IEC cap sheets in these Regulations (GRE-72-08). GRE adopted all three proposals as respectively amended by Annexes II, III and IV to this report and requested the secretariat to submit them to WP.29 and the Administrative Committee of the 1958 Agreement (AC.1) for consideration and vote at their March 2015 sessions as draft Supplement 44 to the 03 series of amendments to Regulation No. 37, draft Supplement 10 to the original series of Regulation No. 99 and draft Supplement 4 to the original series of amendments to Regulation No. 128.

8. The expert from OICA pointed out the need to indicate the required voltage range for light sources introduced in the above Regulations. GRE decided to address this issue at its next sessions.

B. Regulation No. 48 (Installation of lighting and light-signalling devices)

I. Proposal for amendments to the 04, 05 and 06 series of amendments


9. Taking into account the recent GTB study (GRE-71-32), the expert from France proposed to delete a design restrictive requirement for an automatic levelling device for all headlamps with LED light sources, irrespective of their luminous flux (ECE/TRANS/WP.29/GRE/2014/34). GRE agreed that this proposal should be tackled at the next session, in conjunction with the GTB proposals on visibility and glare issues (see para. 14 below).

10. The expert from Germany introduced a proposal on the activation of a hazard warning signal in case of excess temperature in certain compartments of M2 and M3 buses (ECE/TRANS/WP.29/GRE/2014/39). The expert from OICA introduced an alternative proposal (GRE-72-17). GRE adopted the text as contained in Annex V to the report and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their March 2015 sessions as draft Supplements to the 04, 05 and 06 series of amendments to Regulation No. 48.

11. The expert from OICA presented a proposal to allow the cornering lamps, used during reversing manoeuvres, to remain 'ON' until the vehicle’s forward speed is 10 km/h (ECE/TRANS/WP.29/GRE/2014/40). GRE adopted this proposal and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their March 2015 sessions as a draft Supplements to the 04, 05 and 06 series of amendments to Regulation No. 48.

II. Proposal for amendments to the 06 series of amendments


12. The expert from Germany presented a revised proposal to require side marker lamps to flash together with direction indicators on heavy goods vehicles and buses (ECE/TRANS/WP.29/GRE/2014/33, GRE-72-22) as well as additional transitional provisions (GRE-72-05 and GRE-72-06). Following an in-depth discussion, GRE adopted
13. The expert from GTB proposed to remove a conflict with the text of Regulation No. 19 on markings of front fog lamps that are reciprocally incorporated with the main beam (ECE/TRANS/WP.29/GRE/2014/22, GRE-72-10). GRE adopted this proposal as contained in Annex VII to the report and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their March 2015 sessions as draft Supplements not only to the 06, but also to the 04 and 05 series of amendments to Regulation No. 48.

14. The expert from GTB recalled the outcome of the GTB study on visibility and glare (GRE-71-32) and presented a first draft of amendments to Regulation No. 48 addressing the visibility distance and glare issues (GRE-72-07). This proposal received comments by the expert from Poland (GRE-72-23-Rev.1). Various experts generally agreed that the current requirement for automatic levelling in Regulation No. 48 (2,000 lm luminous flux of the light source) should be replaced by other deciding factors for headlamp glare, such as the vehicle pitch angle, loading conditions and initial headlamp aiming. However, no consensus was reached on exact replacement criteria. The expert from UK suggested that an informal group be established to speed up the finalization of the amendment proposal. The experts from France, Germany, Italy and the Netherlands were of the view that GTB should be tasked to submit a concrete proposal to the next session of GRE. GRE invited GTB, OICA and interested Contracting Parties to organize a meeting with the aim to elaborate a revised proposal. The experts from France, Germany, Italy, Netherlands, Poland and UK expressed their interest in participating in this meeting.

15. The expert from the Netherlands, in his capacity of Chair of the task force on tell-tale requirements, reported on the progress made by the task force. GRE noted that the task force would submit its proposals to the next session of GRE.

3. Other amendments to Regulation No. 48

Documentation: ECE/TRANS/WP.29/GRE/2014/37,
Informal document GRE-71-18

16. The expert from Italy introduced proposals for correction related to several series of amendments to Regulation No. 48 (ECE/TRANS/WP.29/GRE/2014/37). GRE adopted these proposals and requested the secretariat to combine them with the proposal adopted at the previous session (ECE/TRANS/WP.29/GRE/71, para. 16) and then submit to WP.29 and AC.1 for consideration and vote at their March 2015 sessions as separate draft Supplements to the 04, 05 and 06 series of amendments to Regulation No. 48.

17. GRE noted that the expert from France had withdrawn its proposal to modify the speed threshold in paragraph 6.22.7.4.3. (GRE-71-18).

4. Vehicle signature

18. No new information was reported under this agenda item. The Chair proposed to remove it from the agenda of the next session.

C. Draft Horizontal Reference Document and collective amendments

Documentation: ECE/TRANS/WP.29/GRE/2013/55/Rev.1,
ECE/TRANS/WP.29/2013/68, ECE/TRANS/WP.29/2013/69,
19. The expert from EC recalled his statement at the previous session (GRE-72-03) and highlighted the importance that EU attaches to the simplifications of lighting and light-signalling Regulations.

20. The Chair introduced GRE-72-20 proposing the terms of reference and rules of procedure of the Informal Working Group "Simplification of the Lighting and Light-Signalling Regulations" (IWG SLR). Having introduced minor editorial corrections, GRE adopted the proposal as reproduced in Annex VIII to this report. GRE also agreed that IWG SLR superseded the Horizontal Reference Document Informal Group which ceased to exist.

21. GRE requested IWG SLR to consider GRE-71-23 and to consolidate into a horizontal document, harmonized definitions in lighting and light-signalling Regulations. For the same purpose, GRE referred to IWG SLR collective proposals, such as compliance obligations with installation requirements, definition of "type" with regard to the manufacturer and trade names/marks and provisions for the conformity of production, including those that had been referred back by WP.29 (ECE/TRANS/WP.29/GRE/2013/55/Rev.1, ECE/TRANS/WP.29/2013/68, ECE/TRANS/WP.29/2013/69, ECE/TRANS/WP.29/2013/71, ECE/TRANS/WP.29/2013/76, ECE/TRANS/WP.29/2013/79, ECE/TRANS/WP.29/2013/83, ECE/TRANS/WP.29/2013/84, ECE/TRANS/WP.29/2013/85, ECE/TRANS/WP.29/2013/86, ECE/TRANS/WP.29/2013/87, ECE/TRANS/WP.29/2013/88, ECE/TRANS/WP.29/2013/89, ECE/TRANS/WP.29/GRE/2014/3).

22. The expert from Germany presented a joint proposal by Germany, the Netherlands and IEC, introducing into Regulations Nos. 48 and 112 requirements to avoid intentional non-approved voltage variation of the passing and driving beam for halogen light sources (ECE/TRANS/WP.29/GRE/2014/31, GRE-72-14). The experts from France, Italy, Sweden and UK expressed some concerns and were not in a position to agree to this proposal. GRE decided to revert to this issue at its next session on the basis of a revised proposal to be submitted by the expert from Germany.

23. GRE took note of a revised proposal tabled by the expert from Italy, deleting obsolete references in Regulations Nos. 53 and 74 (ECE/TRANS/WP.29/GRE/2014/38). For Regulation No. 53, the expert from Germany also suggested deleting references to headlamps of Class B of Regulation No. 113 (ECE/TRANS/WP.29/GRE/2014/32), due to their poor performance and related road safety issues. The expert from IMMA pointed out the industry's need for transitional provisions and presented a first draft of them in GRE-72-19. GRE invited all stakeholders to re-discuss the issues in the above three documents and to transmit a single revised document for consideration at the next session.

24. GRE recalled the presentation on simplifying the approval markings by implementing the "unique identifier" function in the envisaged Database for the Exchange of Type Approval documentation (GRE-71-21) and requested IWG SLR to pursue this issue.
D. Regulation No. 7 (Position, stop and end-outline lamps)

*Documentation:* Informal document GRE-72-11

25. The expert from GTB proposed to correct an error introduced by Supplement 21 to the 02 series of Regulation No. 7 (GRE-72-11). GRE adopted the proposed correction and requested the secretariat to identify the proper legal form (supplement or corrigendum) and submit to WP.29 and AC.1 for consideration and vote at their March 2015 sessions the following amendment:

*Paragraph 1.6., subparagraph (c), amend to read:*

"(c) The variable intensity control, if any".

E. Regulation No. 27 (Advance warning triangle)

26. No new proposals were submitted under this item.

F. Regulation No. 65 (Special warning lamps)

27. No new proposals were submitted under this item. For both Regulations Nos. 27 and 65, GRE agreed to remove them from the agenda until new developments emerge.

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


28. The expert from the Netherlands, chairing the informal Group on Agricultural Vehicle Lighting Installation (AVLI), introduced a revised proposal to update Regulation No. 86 (ECE/TRANS/WP.29/GRE/2014/30, GRE-72-02 and GRE-72-12) as well as informed GRE about ongoing activities of AVLI according to Phase II of its mandate. GRE adopted this proposal, as amended by Annex IX to the report, and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their March 2015 sessions as draft Supplement 6 to the original series of amendments to Regulation No. 86.

29. GRE took note of the activities of other WP.29 Working Parties (GRs) to introduce new definitions for agricultural trailers and towed machinery into the Consolidated Resolution (R.E.3) (ECE/TRANS/WP.29/GRSG/2014/25) and considered two alternative proposals submitted by the expert from the European Commission (GRE-72-04). GRE expressed preference for the first option and adopted the proposal as contained in Annex X to the report. The secretariat was requested to submit it to WP.29 for consideration at its June 2015 session as well as to inform other GRs about this proposal.

H. Conspicuity of motorcycles

30. In absence of new proposals, GRE agreed to delete this item from the agenda of its next session.
I. Other business

1. Amendments to the Convention on Road Traffic (Vienna 1968)
   
   **Documentation:** Informal document GRE-72-15

31. The Secretary to the Working Party on Road Traffic Safety (WP.1) informed GRE that WP.1, at its September 2014 session, had continued consideration of the draft proposals for amendments to the Vienna 1968 Convention regarding lighting and light-signalling (ECE/TRANS/WP.1/2011/4/Rev.3). He reported that a new consolidated revision would be prepared for the next session of WP.1 in April 2015, which would inter alia take into account further proposals by IMMA (GRE-72-15). Once finalized and approved by WP.1, the amendment proposals should be officially forwarded to the UN Secretary-General, in his capacity of depository, by one of the Contracting Parties to the 1968 Convention. The WP.1 Secretary invited GRE experts to discuss this issue at the national level, with a view to finding a volunteer country. The GRE Chair stated that he would also raise this issue at the session of the Administrative Committee for the Coordination of Work (AC.2) in November 2014.

2. Decade of action for road safety 2011-2020

32. GRE noted that, on 10 April 2014, the United Nations General Assembly had adopted the Resolution on improving global road safety (A/RES/68/269) which recognized the work of WP.29 and highlighted the importance of the 1958 and 1998 Agreements.

3. Development of an International Whole Vehicle Type Approval (IWVTA)
   
   **Documentation:** ECE/TRANS/WP.29/2014/53, ECE/TRANS/WP.29/2014/82, Informal documents WP.29-163-10

33. The Secretary to WP.29 reported on the progress made on Revision 3 of the 1958 Agreement and on the development of Regulation No. 0. At its June 2014 session, WP.29 had agreed to freeze the work on Revision 3 and to resume its consideration in November 2014 on the basis of political and legal guidance that the Contracting Parties had been requested to provide, in particular, on outstanding issues of proxy voting and the three-fourth or the four-fifth majority required for taking decisions. WP.29 had also approved a questionnaire on IWVTA, which was subsequently distributed. The latest draft of Revision 3 of the 1958 Agreement is available in ECE/TRANS/WP.29/2014/53 and ECE/TRANS/WP.29/2014/82.

34. GRE recalled the draft guidelines on amendments to UN Regulations (WP.29-163-10) and a recommendation to limit the submission of a set of amendments to an existing Regulation to only one session of WP.29 per year, in order to reduce the administrative burden. GRE noted that, in the future, it could continue approving amendments to a specific Regulation at each session, but their subsequent submission to WP.29 and AC.1 would be done only once a year.

35. GRE recalled that, for the purposes of IVWTA, it had amended Regulation No. 4, but Regulation No. 48 also needs amendment due to the existing footnote that Contracting Parties not applying Regulation No. 87 may prohibit the presence of daytime running lamps (DRL) on the basis of national regulations. As one Contracting Party prohibits the use of DRL on the basis of national regulations and would not accept the deletion of this footnote, GRE brainstormed on various options on how to amend Regulation No. 48 to ensure that it is included in Regulation No. 0. GRE encouraged GTB to try to elaborate a draft consensus proposal for the next session, with a view to finalizing it at the October 2015 session.
Meanwhile, GRE mandated its Chair to raise this issue at the AC.2 session in November 2014.

4. Any other business


36. The expert from IMMA presented a revised proposal to introduce the possibility of interdependent lamps for dedicated motorcycle lamps into Regulation No. 50 (ECE/TRANS/WP.29/GRE/2014/15, GRE-72-16). GRE adopted the proposal, as amended by Annex XI to this report, and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their March 2015 sessions as draft Supplement 17 to the original version of Regulation No. 50.

37. The expert from IMMA introduced a revised proposal allowing for the possibility of installing interdependent lamps for L3 category vehicles in Regulation No. 53 (ECE/TRANS/WP.29/GRE/2014/16). GRE adopted this proposal and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their March 2015 sessions as draft Supplement 15 to the 01 series of amendments to Regulation No. 53.

38. The expert from GTB introduced a proposal to clarify the testing procedures in Regulation No. 3 (ECE/TRANS/WP.29/GRE/2014/17). GRE adopted this proposal and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their March 2015 sessions as draft Supplement 16 to the 02 series of amendments to Regulation No. 3.

39. The expert from GTB proposed to amend the requirements for marking, colour management and ultraviolet testing of light emitting diodes (LED) in Regulation No. 19 (ECE/TRANS/WP.29/GRE/2014/18). GRE adopted this proposal and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their March 2015 sessions as draft Supplement 7 to the 04 series of amendments to Regulation No. 19, subject to the following amendment: Annex 5, paragraph 1.2.1.2., new subparagraph (f), amend to read: "(f) 2±1 parts by weight of surface-actant^5."

40. The expert from GTB proposed to amend photometric stability requirements in Regulations Nos. 23 and 119 (ECE/TRANS/WP.29/GRE/2014/19, ECE/TRANS/WP.29/GRE/2014/27). GRE adopted these proposals and requested the secretariat to submit them...
to WP.29 and AC.1 for consideration and vote at their March 2015 sessions as draft Supplement 20 to the original series of amendments to Regulation No. 23 and draft Supplement 4 to the 01 series of amendments to Regulation No. 119, respectively.


42. GRE noted that, in principle, the provisions amended by GTB are very similar and should become part of a horizontal reference document in the future. Nevertheless, GRE was of the view that the amendment process should not be blocked, pending the outcome of activities of IWG SLR. Thus, GRE adopted the above proposals and requested the secretariat to submit them to WP.29 and AC.1 for consideration and vote at their March 2015 sessions as, respectively, draft Supplement 9 to the 01 series of amendments to Regulation No. 45, draft Supplement 5 to the 01 series of amendments to Regulation No. 98, draft Supplement 5 to the 01 series of amendments to Regulation No. 112, draft Supplement 5 to the 01 series of amendments to Regulation No. 113 and draft Supplement 7 to the 01 series of amendments to Regulation No. 123, subject to the following amendments:

ECE/TRANS/WP.29/GRE/2014/21

Annex 4, paragraph 2.1.1., last line, replace "mS/m" with "µS/m".

Annex 4, paragraph 2.1.1., subparagraph (e), amend to read:

"(e) 13 parts by weight of distilled water with a conductivity of ≤ 1 µS/m, and 2 ±1 parts by weight of surface-actant²."

ECE/TRANS/WP.29/GRE/2014/23, ECE/TRANS/WP.29/GRE/2014/25 and
ECE/TRANS/WP.29/GRE/2014/26

Annex 4, paragraphs 1.2.1.1.1. and 1.2.1.1.2., replace "mS/m" with "µS/m".

ECE/TRANS/WP.29/GRE/2014/28

Annex 4, paragraphs 1.2.1.1. and 1.2.1.2., replace "mS/m" with "µS/m".

43. The expert from France proposed to delete a design restrictive requirement of a minimum luminous flux of 1,000 lm for LED in Regulations Nos. 112 and 123 (ECE/TRANS/WP.29/GRE/2014/25, ECE/TRANS/WP.29/GRE/2014/36, GRE-72-25). The expert from Poland proposed an alternative definition of photometric requirements (GRE-72-24). GRE supported the deletion of the 1,000 lm requirement, but could not agree with the requirement for light distribution of the beam pattern proposed as an alternative. GRE invited the expert from France, in cooperation with the expert from Poland, to prepare a revised proposal for consideration at the next session. All GRE experts were invited to contribute.

44. The expert from Belgium introduced a proposal to amend Regulation No. 10 with prescriptions for electromagnetic compatibility of trolleybuses (ECE/TRANS/WP.29/GRE/2014/41). GRE noted that this amendment had been originally prepared for Regulation No. 107 (General construction of buses and coach), but the Working Party on General Safety Provisions (GRSG) felt that the prescriptions for electromagnetic compatibility of trolleybuses belong to Regulation No. 10 which is under the auspices of GRE. The experts from the Russian Federation and OICA pointed out that the proposed prescriptions for electromagnetic compatibility of trolleybuses do not fit
Regulation No. 10, as they are substantially different from the current provisions in this Regulation and would require different testing methods and equipment that are not easily available. GRE agreed to solicit the expert opinions on this issue and to revert to it at its next session. Meanwhile, GRE invited its Chair to bilaterally discuss the issue with the GRSG Chair and, if necessary, to raise it at the November 2014 session of AC.2.

45. GRE recalled a number of documents referred back by WP.29 and agreed with the content of four revised documents re-submitted by the secretariat to the November 2014 session of WP.29 (ECE/TRANS/WP.29/2013/75/Rev.1, ECE/TRANS/WP.29/2013/90/Rev.1, ECE/TRANS/ WP.29/2013/92/Rev.1, ECE/TRANS/WP.29/2013/93/Rev.1).

46. The expert from GTB proposed to correct an error introduced by Supplement 16 to the original series of Regulation No. 38 (GRE-72-09). GRE adopted this proposal, as contained in Annex XII to the report, and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their March 2015 sessions as a draft Supplement to Regulation No. 38.

47. The expert from Poland proposed to introduce a new "side illuminating lamp" into Regulations Nos. 119 and 48 (GRE-72-21, GRE-72-21-Add.1). GRE delivered a number of preliminary remarks and invited the expert from Poland to submit a revised proposal as an official document for consideration at the next session.

48. The Chair invited GRE experts to take part in the third International Forum on Automotive Lighting (IFAL 2015, China) (GRE-72-26 and Add.1).

J. Direction for future GRE work (agenda item 13)

1. Work tasks of GRE

49. GRE dealt with this issue together with item 4 (c) of the agenda (paras. 19-24 above).

2. Work progress of the International Automotive Lighting and Light Signalling Expert Group (GTB) task forces


50. The experts from GTB presented status reports of the GTB Working Group activities (GRE-72-27, GRE-72-28, GRE-72-29, GRE-72-30). Concerning the GTB activities to improve the situation with non-approved LED retrofit light sources used as replacement parts for filament light source, the experts from France and Italy were of the view that such replacement should be prohibited on safety concerns.

51. The expert from GTB invited GRE to provide guidance regarding the obligation in Regulation No. 48 for trailers to have the triangular retro-reflector. The experts from France, Germany and UK were of the view that amending Regulation No. 48 in this respect is not appropriate.

VI. Election of officers (agenda item 5)

52. In compliance with Rule 37 of the Rules of Procedure (TRANS/WP.29/690 and ECE/TRANS/WP.29/690/Amend.1), GRE called for the election of officers. The representatives of the Contracting Parties, present and voting, elected unanimously Mr. Michel Loccuifer (Belgium) as Chair and Mr. Derwin Rovers (Netherlands) as Vice-
Chair for the sessions of GRE scheduled in the year 2015. GRE paid public tribute to Mr. Marcin Gorzkowski who had chaired GRE in 2002-2014.

VII. Provisional agenda for the next session

53. The following outline of the provisional agenda was adopted for the seventy-third session of GRE, scheduled to be held in Geneva from 14 April 2015 (starting at 09.30 a.m.) to 17 April 2015 (concluding at 17.30 p.m.)¹:

1. Adoption of the agenda.

1958 Agreement – Regulations
5. Regulations Nos. 37 (Filament lamps), 99 (Gas discharge light sources) and 128 (Light emitting diodes light sources).
6. Regulation No. 48 (Installation of lighting and light-signalling devices).
7. Other Regulations:
   (a) [Regulation No. …]:
   (b) ….
8. Other business:
   (a) Amendments to the Convention on Road Traffic (Vienna 1968);
   (b) Decade of action for road safety 2011-2020;
   (c) Development of an International Whole Vehicle Type Approval (IWVTA);
   (d) Phantom light and colour washout.
10. Direction for future work of GRE:
    (a) Work tasks of GRE;
    (b) Work progress of the International Automotive Lighting and Light Signalling Expert Group (GTB) task forces.

¹ The preannounced dates of this session have been slightly modified.
Annex I

List of informal documents considered during the session

Informal documents GRE-72-…

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<td>(Germany)</td>
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<td>(IEC)</td>
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<td>Proposal for Supplement 6 to the 06 series of amendments to Regulation No. 48</td>
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<td>11</td>
<td>(GTB)</td>
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<td>(Germany, Netherlands and IEC)</td>
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<td>(Secretariat)</td>
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<td>20</td>
<td>(IWG SLR)</td>
<td>Draft Terms of Reference of IWG SLR</td>
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<td>21</td>
<td>(Poland)</td>
<td>Draft proposal to introduce &quot;side illuminating lamp&quot; into Regulations Nos. 119 and 48</td>
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<td>21/Add.1</td>
<td>(Poland)</td>
<td>Presentation of &quot;side illuminating lamp&quot;</td>
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<td>(Germany)</td>
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<tr>
<td>24</td>
<td>(Poland) Alternative definition of photometric requirements for ECE/TRANS/WP.29/GRE/2014/35 and ECE/TRANS/WP.29/GRE/2014/36</td>
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<td>(Chair) The 3rd International Forum on Automotive Lighting (IFAL 2015, China)</td>
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<td>27</td>
<td>(GTB) GTB Working Group on Light Sources: Status Report</td>
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<td>(GTB) GTB Working Group on Installation: Status Report</td>
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<td>28</td>
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<td>29</td>
<td>(GTB) GTB Mirror Working Group SAE: Status Report</td>
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Notes:
(a) Endorsed or adopted without amendment;
(b) Endorsed or adopted with amendments;
(c) Resume consideration on the basis of a document with an official symbol;
(d) Kept as reference document/continue consideration;
(e) Revised proposal for the next session;
(f) Consideration completed or to be superseded;
(g) Withdrawn.
Annex II

Adopted amendments to Regulation No. 37 in addition to ECE/TRANS/WP.29/GRE/2014/20

Annex 1,

Sheet H7/3, the table, amend to read:

| Cap PX26d in accordance with IEC Publication 60061 (sheet 7004-5-7) |

Sheet H17/2, the table, amend to read:

| Cap PU43t-4 in accordance with IEC Publication 60061 (sheet 7004-171-2) |

Sheet PC16W/2, the table, amend to read:

| PC16W Cap PU20d-1 in accordance with IEC Publication 60061 (sheet 7004-158-1) |
| PCY16W Cap PU20d-2 |
| PCR16W Cap PU20d-7 |
| PW16W Cap WP3.3x14.5-7 in accordance with IEC Publication 60061 (sheet 7004-164-1) |
| PWY16W Cap WP3.3x14.5-9 |
| PWR16W Cap WP3.3x14.5-10 |

Sheet W15/5W/1, the table, amend to read:

| Cap WZ3x16q in accordance with IEC Publication 60061 (sheet 7004-151-2) |

Sheet W21W/1, the table, amend to read:

| Cap W3x16d in accordance with IEC Publication 60061 (sheet 7004-105-3) |

Sheet W21/5W/1, the table, amend to read:

| Cap W3x16q in accordance with IEC Publication 60061 (sheet 7004-106-4) |

Sheet WR21/5W/1, the table, amend to read:

| Cap WY3x16q in accordance with IEC Publication 60061 (sheet 7004-106-4) |

Sheet WY21W/1, the table, amend to read:

| Cap WX3x16d in accordance with IEC Publication 60061 (sheet 7004-105-3) |
Annex III

Adopted amendments to Regulation No. 99 in addition to ECE/TRANS/WP.29/GRE/2014/24

Sheet DxR/4, the table, amend to read:

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<td>Cap PK32d-3</td>
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<tr>
<td>D2R:</td>
<td>Cap P32d-3</td>
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<tr>
<td>D3R:</td>
<td>Cap PK32d-6</td>
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<td>D4R:</td>
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in accordance with IEC Publication 60061 (sheet 7004-111-5)

Sheet DxS/4, the table, amend to read:

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<td>D3S:</td>
<td>Cap PK32d-5</td>
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<tr>
<td>D4S:</td>
<td>Cap P32d-5</td>
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in accordance with IEC Publication 60061 (sheet 7004-111-5)

Sheet D5S/3, the table, amend to read:

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in accordance with IEC Publication 60061 (sheet 7004-111-5)

Sheet D6S/3, the table, amend to read:

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in accordance with IEC Publication 60061 (sheet 7004-111-5)

Sheet D8S/3, the table, amend to read:

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<td>Cap PK32d-1</td>
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in accordance with IEC Publication 60061 (sheet 7004-111-5)
Annex IV

Adopted amendments to ECE/TRANS/WP.29/GRE/2014/29

Sheet LR3/2, the table, correct to read:

"...

Cap PGJ18.5d-1 in accordance with IEC Publication 60061 (sheet 7004-185-1)

..."

Sheet LR4/2, the table, correct to read:

"...

Cap PGJ18.5t-5 in accordance with IEC Publication 60061 (sheet 7004-185-1)

..."
Annex V

Adopted amendments to the 04, 05 and 06 series of amendments to Regulation No. 48 (based on ECE/TRANS/WP.29/GRE/2014/39)

Paragraph 6.6.7.2., amend to read:

"6.6.7. Electrical Connections

6.6.7.1. The signal shall be operated by means of a separate manual control enabling all the direction-indicator lamps to flash in phase.

6.6.7.2. The hazard warning signal may be activated automatically in the event of a vehicle being involved in a collision or after the de-activation of the emergency stop signal, as specified in paragraph 6.232. In such cases, it may be turned "off" manually.

In addition, the hazard warning signal may be switched on automatically to indicate to other road-users the risk of imminent danger as defined by Regulations; in this case, the signal shall remain switched "on" until it is manually or automatically switched "off".

6.6.7.3. On M₁ and N₁ vehicles less than 6m in length, with an arrangement complying with paragraph 6.5.5.2. above, the amber side-marker lamps, when mounted, shall also flash at the same frequency (in phase) with the direction-indicator lamps."

Annex VI

Adopted amendments to the 06 series of amendments to Regulation No. 48 (based on ECE/TRANS/WP.29/GRE/2014/33)

Paragraph 6.5.3., amend to read:

"6.5.3. Arrangements (see figure below)

A: Two front direction-indicator lamps of the following categories:

1 or 1a or 1b,

If the distance between the edge of the apparent surface in the direction of the reference axis of this lamp and that of the apparent surface in the direction of the reference axis of the dipped-beam headlamp and/or the front fog lamp, if there is one, is at least 40 mm;

1a or 1b,

If the distance between the edge of the apparent surface in the direction of the reference axis of this lamp and that of the apparent surface in the direction of the reference axis of the dipped-beam headlamp and/or the front fog lamp, if there is one, is greater than 20 mm and less than 40 mm;

1b,

If the distance between the edge of the apparent surface in the direction of the reference axis of this lamp and that of the apparent surface in the direction of the reference axis of the dipped-beam headlamp and/or the front fog lamp, if there is one, is less than or equal to 20 mm;

Two rear direction-indicator lamps (category 2a or 2b);

Two optional lamps (category 2a or 2b) on all vehicles in categories M₂, M₃, N₂, N₃.

Two side direction-indicator lamps of the categories 5 or 6 (minimum requirements):

5

For all M₁ vehicles;

For N₁, M₂ and M₃ vehicles not exceeding 6 metres in length.

6

For all N₂ and N₃ vehicles;

For N₁, M₂ and M₃ vehicles exceeding 6 metres in length.

It is permitted to replace category 5 side direction-indicator lamps by category 6 side direction-indicator lamps in all instances.

A maximum of three optional category 5 or one optional category 6 device per side on vehicles of type M₂, M₃, N₂, and N₃ exceeding 9 m in length.

Where lamps combining the functions of front direction-indicator lamps (categories 1, 1a, 1b) and side direction-indicator lamps (categories 5 or 6)
are fitted, two additional side direction-indicator lamps (categories 5 or 6) may be fitted to meet the visibility requirements of paragraph 6.5.5.

B: two rear direction-indicator lamps (Categories 2a or 2b)

Two optional lamps (category 2a or 2b) on all vehicles in categories O₂, O₃, and O₄.

A maximum of three optional category 5 or one optional category 6 device per side on vehicles of type O₂, O₃, and O₄ exceeding 9 m in length.

Where an AFS is fitted, the distance to be considered for the choice of the category is the distance between the front direction-indicator lamp and the closest lighting unit in its closest position contributing to or performing a passing-beam mode.

Add a new paragraph 6.5.3.1., to read:

"6.5.3.1. In addition, for vehicles of categories:

- M₂, M₃, N₂, and N₃ of above 6 m and up to including 9 m in length one additional category 5 device is optional;
- M₂, M₃, N₂, and N₃ exceeding 9 m in length three additional category 5 devices distributed as evenly as practicable along each side are mandatory;
- O₃ and O₄ three category 5 devices distributed as evenly as practicable along each side are mandatory.

These requirements do not apply if there are at least three amber side marker lamps that flash in phase and simultaneously with the direction indicator lamps on the same side of the vehicle."

Paragraph 6.18.7., amend to read:

"6.18.7. Electrical connections

On M₁ and N₁ category vehicles less than 6 m in length amber side-marker lamps may be wired to flash, provided that this flashing is in phase and at the same frequency with the direction-indicator lamps at the same side of the vehicle.

On M₂, M₃, N₂, N₃, O₃ and O₄ vehicles mandatory amber side marker lamps may flash simultaneously with the direction-indicator lamps on the same side of the vehicle. However, where there are direction indicator lamps of category 5 installed according to paragraph 6.5.3.1., on the side of the vehicle these amber side marker lamps shall not flash.

For all other categories of vehicles: no individual specification."
Annex VII

**Adopted amendments to ECE/TRANS/WP.29/GRE/2014/22**

*Paragraph 6.3.7.*, amend to read:

"6.3.7. Electrical connections

   It shall be possible to switch the front fog lamps ON and OFF independently of the main-beam headlamps, the dipped-beam headlamps or any combination of main- and dipped-beam headlamps, unless

   (a) the front fog lamps are used as part of another lighting function in an AFS; however, the switching ON of the front fog lamps function shall have the priority over the function for which the front fog lamps are used as a part, or

   (b) the front fog lamps cannot be simultaneously lit with any other lamps with which they are reciprocally incorporated as indicated by the relevant symbol ("/") according to paragraph 10.1. of Annex 1 of Regulation No. 19."

*Annex 1, item 9.3.*, amend to read:

"9.3. Front-fog lamps: yes/no

   Comments: Reciprocally incorporated in headlamp: yes/no"
Annex VIII

Adopted Terms of Reference and Rules of Procedure for the Informal Working Group "Simplification of the Lighting and Light-Signalling Regulations"

I. Introduction

1. At the 156th session of WP.29, the European Union, supported by Japan, urged WP.29 to consider the simplification of the lighting regulations and to focus upon developing less technology-specific, more performance-related requirements (ECE/TRANS/WP.29/1095, paras. 76 and 77).

2. At the 157th session of WP.29, GTB presented its approach to help GRE work on consolidating the UN Regulations on lighting and light-signalling to reduce the administrative workload. The suggested approach seeks to reduce the number of regulations concerning lighting and light-signalling and to focus on performance requirements rather than design and technical descriptions.

3. Subsequently this approach was distributed as an official document ECE/TRANS/WP.29/2012/119 and formally considered by WP.29 at its 158th session. WP.29 endorsed the principles proposed by GTB and asked GRE to develop a road map, taking into consideration the resources of GRE (ECE/TRANS/WP.29/1099, para. 37).

4. At its sixty-ninth session, GRE agreed to create a special interest group of experts, which met in February and June 2014, to define the Terms of Reference of this new Informal Working Group.

5. The purpose of IWG is not to adapt or amend the prescriptions of the various Regulations under consideration other than where the objectives of simplification and consolidation so require.

6. GRE asks WP.29 to approve the establishment of a new informal group under GRE, namely "Informal Group on Simplification of the Lighting and Light-Signalling Regulations" to work in accordance to the objectives set out below.

II. Objectives

7. The objective of the informal group is to review the current suite of lighting and light-signalling Regulations and to develop a proposal to:

   (a) Provide a structure that limits to a minimum the number of parallel amendments necessary to achieve a regulatory change;
   
   (b) Reduce the number of active/non-frozen regulations; and
   
   (c) Define the essential requirements in performance (technology neutral) terms to provide opportunities for innovation.

8. The proposal from the informal group shall also seek to:

   (a) Reduce ambiguity in the provisions to provide consistent interpretation;
   
   (b) Reduce the administrative burden (caused by maintenance of Regulations) on the Contracting Parties, the UNECE secretariat (and associated UN services) and the affected industrial sector;
(c) Reduce regulatory burden for industry.

9. The informal group shall propose a new approach to reform the practice of multiple/collective amendments and may consider (but is not limited by) the consolidation of common requirements to improve the efficiency of the regulatory text. As a first step, the light-signalling regulations shall be examined.

10. The informal group shall identify possibilities to merge regulations containing similar or identical provisions such as Regulations Nos. 98 and 112 and, if feasible, to develop a draft regulatory text.

11. Based upon the conclusion of objectives 9 and 10 above and/or additional analysis, the other Regulations (relating to forward lighting, retro-reflective devices, light sources and installation) shall be addressed.

12. In parallel to objectives 9-11 above, the informal group shall:

   (a) Determine whether the current regulatory text presents barriers to innovation and whether safety considerations are addressed;

   (b) Develop, as far as possible, performance-based and technology-neutral requirements to ensure freedom for technical innovation within a framework of safety principles.

III. Operating principles

13. The Informal Working Group on Simplification of the UN Lighting and Light Signalling Regulations is a subgroup of GRE and is open to all participants of GRE including Contracting Parties and non-governmental organizations to the 1958 and 1998 Agreements.

14. A Chair (Belgium), a Vice-Chair (European Commission) and a Secretary (GTB) will manage the informal group.

15. The official language of the informal group will be English.

16. An agenda and related documents shall be made available on the website (www2.unece.org/wiki/pages/viewpage.action?pageId=23759699) by the Secretary of the Group in advance of all scheduled meetings.

17. All documents and/or proposals shall be submitted to the Secretary of the Group in a suitable electronic format in advance of the meetings. The Group may postpone discussing any item or proposal which has not been circulated 5 working days in advance of the scheduled meeting.

18. The Secretary of the Group will distribute the meeting minutes to the IWG members within 15 working days after the meeting of the Group.

19. Decisions and proposals of the group shall be reached by consensus. When consensus cannot be reached, the Chair of the Group shall present the different points of view to GRE. The Chair may seek guidance from GRE as appropriate.

20. Sessions shall be held in agreement with the majority of the participants after the Group has been established in a constitutional meeting. Sessions may be in person or virtual using web-based technology.

21. A provisional agenda shall be drawn up by the secretariat in accordance with the participants of the Group. The first item of the provisional agenda for each session shall be the adoption of the agenda.

22. The second item on the provisional agenda will be the discussion on matters arising and adoption of the minutes of the previous session.
IV. Work plan and time schedule


25. Relating to objective 12 of section II above: the date will be confirmed to WP.29 at its 167th session in November 2015.

26. Meetings of the informal group will be scheduled to meet the timeline for deliverables. These meetings may be "in-person" or virtual (WebEx or similar).
Annex IX

Adopted amendments to ECE/TRANS/WP.29/GRE/2014/30

Paragraph 6.2.6.1.2., amend to read:

"6.2.6.1.2. The dipped-beam headlamps referred to in paragraph 6.2.4.2.4. shall be aligned in such a way that, measured at 15 m from the lamp, the horizontal line separating the lit zone from the unlit zone is situated at a height of equivalent to only half the distance between the ground and the centre of the lamp."

Annex X

Draft amendments to the Consolidated Resolution on the Construction of Vehicles (R.E.3)

Paragraph 2.6., amend to read:

"2.6. Agricultural Vehicles (Categories T, R and S). "Category T - Agricultural and Forestry tractors." - A power driven vehicle, either wheeled or track laying, which has at least two axles, whose function depends essentially on its tractive power, and which is specially designed to pull, push, carry or actuate certain implements, machines or trailers intended for use in agriculture or forestry. Such a tractor may be arranged to carry a load and attendants."

Insert a new paragraph 2.6.1., to read:

"2.6.1. "Category T" - means any motorised, wheeled or tracked agricultural or forestry vehicle having at least two axles and a maximum design speed of not less than 6 km/h, the main function of which lies in its tractive power and which has been especially designed to pull, push, carry and actuate certain interchangeable equipment designed to perform agricultural or forestry work, or to tow agricultural or forestry trailers or equipment; it may be adapted to carry a load in the context of agricultural or forestry work and/or may be equipped with one or more passenger seats."

Insert a new paragraph 2.6.2., to read:

"2.6.2. "Category R - Agricultural trailer": means any agricultural or forestry vehicle intended mainly to be towed by a tractor and intended mainly to carry loads or to process materials and where the ratio of the technically permissible maximum laden mass to the unladen mass of that vehicle is equal to or greater than 3.0."

Insert a new paragraph 2.6.3., to read:

"2.6.3. "Category S - Interchangeable towed equipment": means any vehicle used in agriculture or forestry which is designed to be towed by a tractor, changes or adds to its functions, permanently incorporates an implement or is designed to process materials, which may include a load platform designed and constructed to receive any tools and appliances needed for those purposes and to store temporarily any materials produced or needed during work and where the ratio of the technically permissible maximum laden mass to the unladen mass of that vehicle is less than 3.0."
Annex XI

Adopted amendments to ECE/TRANS/WP.29/GRE/2014/15

Annex 1,
Paragraph 1., amend the diagrams to read:

"1. Front position lamps
V = +15° / -10°
However, in the case where a device is intended to be installed with its H plane at a mounting height less than 750 mm above the ground, the angle of 10° below the horizontal may be reduced to 5°.

Paragraph 2., amend the diagrams to read:

"2. Rear position lamps
V = +15° / -10°
However, in the case where a device is intended to be installed with its H plane at a mounting height less than 750 mm above the ground, the angle of 10° below the horizontal may be reduced to 5°."
Rear position lamps (for a pair of lamps)
$V = +15^\circ / -10^\circ$

However, in the case where a device is intended to be installed with its H plane at a mounting height less than 750 mm above the ground, the angle of $10^\circ$ below the horizontal may be reduced to $5^\circ$.

However, in the case where a device is intended to be installed with its H plane at a mounting height less than 750 mm above the ground, the inward angle of $45^\circ$ may be reduced to $20^\circ$ under the H plane.

Paragraph 3., amend the diagram to read:

"3. Direction indicators of categories 11, 11a, 11b, 11c and 12

$V = \pm 15^\circ$

However, in the case where a device is intended to be installed with its H plane at a mounting height less than 750 mm above the ground, the angle of $15^\circ$ below the horizontal may be reduced to $5^\circ$.

Minimum horizontal angles of light distribution in space:
Categories 11, 11a, 11b and 11c: direction indicators for the front of the vehicle;
Category 11: for use at a distance not less than 75 mm from the passing beam headlamp;
Category 11a: for use at a distance not less than 40 mm from the passing beam headlamp;
Category 11b: for use at a distance not less than 20 mm from the passing beam headlamp;"
Category 11c: for use at a distance less than 20 mm from the passing beam headlamp.

Paragraph 4., amend the diagram to read:

"4. Stop lamps

V = + 15°/-10°

However, in the case where a device is intended to be installed with its H plane at a mounting height less than 750 mm above the ground, the angle of 10° below the horizontal may be reduced to 5°.

However, in the case of a pair of lamps, the inboard geometric visibility requirement is deemed to be satisfied if the lamps conform to the photometric values prescribed in the field of light distribution for the approval of the device.
Annex XII

Adopted amendments to Regulation No. 38

*Paragraph 1.3.*, amend to read:

"1.3. "Rear fog lamps of different types" means lamps which differ in such essential respects as:

(a) the trade name or mark;

(b) the characteristics of the optical system (levels of intensity, light distribution angles, category of light source, light source module, etc.);

(c) **the variable intensity control, if any**.

A change of the colour of the light source or the colour of any filter does not constitute a change of type."
Annex XIII

GRE informal groups

<table>
<thead>
<tr>
<th>Informal group</th>
<th>Chair(s)</th>
<th>Secretary</th>
</tr>
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</table>
| Agricultural Vehicle Lighting Installation (AVLI) | Mr. Gerd Kellermann (Germany)  
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2 Subject to WP.29 consent.