


Economic Commission for Europe
Inland Transport Committee
World Forum for Harmonization of Vehicle Regulations
Working Party on Lighting and Light-Signalling
Eighty-second session

Geneva, 22-25 October 2019

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

	<i>Paragraphs</i>	<i>Page</i>
I. Attendance.....	1	3
II. Adoption of the agenda (agenda item 1)	2–4	3
III. 1998 Agreement – UN Global Technical Regulations: Development (agenda item 2)	5	3
IV. 1997 Agreement – Rules: Development (agenda item 3).....	6	3
V. Simplification of lighting and light-signalling UN Regulations (agenda item 4)....	7–19	3
VI. UN Regulations Nos. 37 (Filament lamps), 99 (Gas discharge light sources), 128 (Light emitting diodes light sources) and the Consolidated Resolution on the common specifications of light source categories (agenda item 5)	20–25	5
VII. UN Regulation No. 48 (Installation of lighting and light-signalling devices) (agenda item 6).....	26–31	6
A. Proposals for amendments to the 05 and 06 series of amendments	26–27	6
B. Proposals for new series of amendments to UN Regulation No. 48	28–31	7
VIII. Other UN Regulations (agenda item 7)	32–39	7
A. UN Regulation No. 10 (Electromagnetic compatibility)	32–33	7
B. UN Regulation No. 53 (Installation of lighting and light-signalling devices for L ₃ vehicles)	34–37	8
C. UN Regulation No. 65 (Special warning lamps)	38–39	8



IX.	Other business (agenda item 8)	40–46	9
A.	Development of the International Whole Vehicle Type Approval	40	9
B.	Amendments to the Convention on Road Traffic (Vienna, 1968)	41–42	9
C.	Decade of action for road safety 2011–2020	43	9
D.	Requests of the Inland Transport Committee	44–45	9
E.	Obsolete transitional provisions	46	10
X.	New business and late submissions (agenda item 9)	47–52	10
XI.	Direction of future work of GRE (agenda item 10).....	53–54	10
XII.	Provisional agenda for the next session (agenda item 11).....	55	11
XIII.	Election of officers (agenda item 12).....	56	11
Annexes			
I.	List of informal documents considered during the session		12
II.	Adopted amendments to UN Regulation No. [148]		14
III.	Adopted amendments to UN Regulation No. [149]		16
IV.	Adopted amendments to ECE/TRANS/WP.29/GRE/2019/29.....		17
V.	GRE informal groups		19

I. Attendance

1. The Working Party on Lighting and Light-Signalling (GRE) held its eighty-second session from 22 to 25 October 2019 in Geneva, under the chairmanship of Mr. M. Loccufier (Belgium). 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, ECE/TRANS/WP.29/690/Amends. 1 and 2): Belgium, China, Czechia, Cyprus, Finland, France, Germany, Hungary, India, Italy, Japan, Netherlands, Poland, Republic of Korea, South Africa, Spain, Switzerland, United Kingdom of Great Britain and Northern Ireland. An expert 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), Society of Automotive Engineers (SAE).

II. Adoption of the agenda (agenda item 1)

Documentation: ECE/TRANS/WP.29/GRE/2019/13, GRE-82-01, GRE-82-14, GRE-82-19

2. GRE considered and adopted the agenda (ECE/TRANS/WP.29/GRE/2019/1), as reproduced in GRE-82-01 together with the informal documents distributed during the session. GRE also noted the running order proposed by the Chair (GRE-82-14).

3. The list of informal documents is contained in Annex I to this report. The list of GRE informal groups is reproduced in Annex IV to this report.

4. GRE took note of the highlights of the June 2019 session of WP.29 and the official document submission deadline of 24 January 2020 for the April 2020 session of GRE (GRE-82-19).

III. 1998 Agreement – UN Global Technical Regulations: Development (agenda item 2)

5. The Chair recalled that GRE was awaiting further progress of automated/autonomous vehicles to see if their light-signalling functions could become a subject for a new UN Global Technical Regulation (UN GTR).

IV. 1997 Agreement – Rules: Development (agenda item 3)

6. No issues were discussed under this agenda item.

V. Simplification of lighting and light-signalling UN Regulations (agenda item 4)

Documentation: ECE/TRANS/WP.29/2019/77, ECE/TRANS/WP.29/2019/125, ECE/TRANS/WP.29/GRE/2019/22, ECE/TRANS/WP.29/GRE/2019/24, ECE/TRANS/WP.29/GRE/2019/25,

ECE/TRANS/WP.29/GRE/2019/26,
ECE/TRANS/WP.29/GRE/2019/28, Informal documents GRE-82-02,
GRE-82-04, GRE-82-05, GRE-82-20, GRE-82-26, GRE-82-27, GRE-
82-28, GRE-82-29, GRE-82-30, GRE-82-31, GRE-82-32, GRE-82-
33, GRE-82-36, GRE-82-38, GRE-82-39

7. The expert from the Informal Working Group Simplification of the Lighting and Light-Signalling Regulations" (IWG SLR) reported on their progress (GRE-82-39). He requested GRE to provide guidance on the future development of UN Regulation No. [149] concerning the light sources and reduction in the number of beams. GRE agreed with the approach envisaged by IWG SLR.

8. GRE was informed that the three new simplified UN Regulations Nos. [148] on Light-Signalling Devices (LSD), [149] on Road Illumination Devices (RID) and [150] on Retro-Reflective Devices (RRD) were expected to enter into force on 15 November 2019. GRE noted that IWG SLR had identified errors inadvertently introduced in the text of the new UN Regulation No. [149] and that a correction had been submitted to the WP.29 session in November 2019 (ECE/TRANS/WP.29/2019/125, GRE-82-02). GRE supported the correction.

9. The expert from IWG SLR introduced corrections of mistakes and omissions in the text of the new UN Regulations Nos. [148], [149] and [150] (ECE/TRANS/WP.29/GRE/2019/24, ECE/TRANS/WP.29/GRE/2019/25 and ECE/TRANS/WP.29/GRE/2019/26). GRE adopted the corrections and mandated the secretariat to submit them to WP.29 and the Administrative Committee (AC.1) for consideration at their March 2020 sessions. GRE also requested the secretariat to verify with the United Nations Office for Legal Affairs (OLA) whether the adopted corrections could be introduced in the form of corrigenda to the original versions of the three new UN Regulations.

10. The expert of IWG SLR proposed a minor correction to ECE/TRANS/WP.29/2019/81 which contained draft Supplement 1 to UN Regulation No. [148] (GRE-82-05). GRE agreed with the correction and requested the Chair to mention it when introducing ECE/TRANS/WP.29/2019/81 at the WP.29 session in November 2019.

11. At the proposal to IWG SLR, GRE adopted further corrections to UN Regulation No. [148] (GRE-82-27, GRE-82-28, GRE-82-29 and Annex II) and requested the secretariat to submit them to WP.29 and AC.1 for consideration at their March 2020 sessions.

12. GRE also noted draft consolidated proposals for amendments to UN Regulation Nos. [148] and [150] (GRE-82-30 and GRE-82-26). The Chair invited GRE experts to review these documents and send their comments to IWG SLR.

13. The expert from Italy proposed to correct a wrong reference in UN Regulation No. [149] (GRE-82-33). GRE adopted the correction (Annex III) and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their March 2020 sessions.

14. GRE recalled that, according to the mandate of IWG SLR, the requirements in the original series of the three new UN Regulations should be totally identical to the requirements in the device UN Regulations which had been frozen in the course of the simplification process. Therefore, GRE was of the view that eventual discrepancies should be corrected by means of supplements or corrigenda to the original series of the new UN Regulations, while substantial changes should only be introduced by the 01 series of amendments and supplements therein.

15. The expert of IWG SLR recalled that, in the course of the SLR process, the device UN Regulation had been "frozen" by introducing new series of amendments which did not require changes in the approval number (TRANS/WP.29/815, para. 82). He requested the

secretariat to include a corresponding footnote in the final consolidated versions of the device UN Regulations.

16. The experts from France and Germany presented an updated proposal for amendments to UN Regulations Nos. 48 and 148, which introduce conditions for the use of logos of the vehicle or body manufacturer inside the illuminating surface of a signalling lamp (ECE/TRANS/WP.29/GRE/2019/28 and GRE-82-32). The expert from CLEPA proposed adding the logo of the lamp manufacturer (GRE-82-20). The expert from OICA suggested a modified definition of "manufacturer logo" (GRE-82-36).

17. Several experts expressed their preference to completely prohibit the use of logos inside the lamps on safety concerns, while some others pointed out that road safety would not be compromised, as the lamps should meet all requirements in the respective UN Regulations. Some experts wondered whether the use of letters inside the logos was allowed. Following an in-depth discussion, GRE agreed that the "manufacturer logo" definition would need further clarification and invited the experts from France and Germany to submit a revised proposal for consideration at the next session. Pending the outcome of this discussion, GRE invited type approval authorities to refrain from granting type approvals to signalling lamps with logos inside the illuminating surface.

18. The expert from Germany presented an updated proposal which introduces requirements for testing the sun load impact into UN Regulation No. [148] (ECE/TRANS/WP.29/GRE/2019/22). He further indicated that these amendments should be introduced by a new 01 series of amendments to UN Regulation No. [148], together with transitional provisions. The proposal received comments from Japan (GRE-82-38). The experts from the United Kingdom, CLEPA and OICA requested justification for additional testing in ECE/TRANS/WP.29/GRE/2019/22. Finally, GRE invited the expert from Germany, in cooperation with Japan, CLEPA and OICA, to complement the document with transitional provisions and research justification.

19. The expert from IWG SLR reported on the challenges of implementing the Unique Identifier (UI) in the new simplified UN Regulations (GRE-82-31) in the light of the progress of IWG on Database for the Exchange of Type Approval Documentation (DETA). GRE reiterated its view that for lighting and light-signalling devices, approval markings should be replaced by UI. At the same time, GRE noted that the access rights currently proposed by IWG DETA would not be sufficient for the efficient use of UI for the lighting and light-signalling UN Regulations. GRE mandated IWG SLR and the Chair to bring the specific GRE needs for the DETA access rights to the attention of IWG DETA and WP.29 at their forthcoming sessions in November 2019.

VI. UN Regulation Nos. 37 (Filament lamps), 99 (Gas discharge light sources), 128 (Light emitting diodes light sources) and the Consolidated Resolution on the common specification of light source categories (agenda item 5)

Documentation: ECE/TRANS/WP.29/GRE/2019/15,
ECE/TRANS/WP.29/GRE/2019/16,
ECE/TRANS/WP.29/GRE/2019/19,
ECE/TRANS/WP.29/GRE/2019/21, Informal documents GRE-82-03,
GRE-82-12, GRE-82-17-Rev.2

20. The expert from GTB proposed amendments to light source categories L1A/6 and L1B/6 in the Consolidated Resolution on the common specification of light source categories (R.E.5), together with an associated amendment to UN Regulation No. 128

(ECE/TRANS/WP.29/GRE/2019/15, ECE/TRANS/WP.29/GRE/2019/16). GRE adopted both proposals and requested the secretariat to submit them, as appropriate, to WP.29 and AC.1 for consideration at their March 2020 sessions as draft amendment 5 to R.E.5. and Supplement 10 to the original version of UN Regulation No. 128.

21. The expert of the Task Force on Substitutes and Retrofits (TF SR) presented their progress report (GRE-82-17-Rev.2) and sought the consent of GRE for the following activities of TF SR:

- Not include Light Emitting Diode (LED) retrofits in UN Regulation No. 128.
- Make UN Regulation No. 37 performance based and technology neutral by amending its scope to also include other light generating technologies, e.g. LED.
- Allow interchange of light sources in the same category, as approved according to UN Regulation No. 37, independent of the technology used for light generation.

22. GRE agreed to the above activities.

23. The expert of TF SR proposed introducing requirements for LED substitute light sources into the new UN Regulation No. [149] on Road Illumination Devices (RID) (ECE/TRANS/WP.29/GRE/2019/19). GRE adopted the proposal and recalled its general view on amending the three new simplified UN Regulations with substantially new provisions (see para. 14 above). Therefore, GRE decided to postpone the submission of ECE/TRANS/WP.29/GRE/2019/19 to WP.29 and AC.1 and to include it the future 01 series of amendments to UN Regulation No. [149].

24. GRE recalled that, for UN Regulation No. [148], the new provisions on substitute light sources had already been submitted to the November 2019 sessions of WP.29 and AC.1 as part of draft Supplement 1 to the original series (ECE/TRANS/WP.29/2019/81). Following the same approach, GRE agreed that these provisions should be removed from the original series of UN Regulation No. [148], once the 01 series of amendments is established.

25. GRE addressed a proposal by the expert of TF SR that introduced a new LED substitute light source category H11/LED in R.E.5 (ECE/TRANS/WP.29/GRE/2019/21, GRE-82-03 and GRE-82-12). The experts from France and the United Kingdom expressed concerns about the thermal behaviour of this category. The expert from IEC provided additional explanations (GRE-82-45). Nevertheless, GRE requested TF SR to address the raised issues at its next session on 10 December 2019 and invited all concerned experts to take part in the meeting.

VII. UN Regulation No. 48 (Installation of lighting and light-signalling devices) (agenda item 6)

A. Proposals for amendments to the 05 and 06 series of amendments

Documentation: ECE/TRANS/WP.29/GRE/2019/14, GRE-82-08, GRE-82-41-Rev.1

26. The expert from Germany tabled a proposal that allows the manual switch-off of all lighting devices in vehicles used by authorities responsible for maintaining public order (ECE/TRANS/WP.29/GRE/2019/14 and GRE-82-41-Rev.1). Some experts were of the view that such a derogation should be addressed in the framework of national or regional rather than international law. Several experts indicated practical difficulties in identifying those vehicles when at the stage of type approval and manufacturing. GRE agreed to revert to the issue at the next session.

27. The expert from Poland proposed modifications to provisions on the rear registration plate lamps (GRE-82-08). Following a brief exchange of views, GRE invited the expert to submit a formal document for consideration at the next session.

B. Proposals for new series of amendments to UN Regulation No. 48

Documentation: ECE/TRANS/WP.29/GRE/2019/20,
ECE/TRANS/WP.29/GRE/2019/29, GRE-82-06, GRE-82-07, GRE-82-11, GRE-82-21, GRE-82-23, GRE-82-25, GRE-82-34, GRE-82-35-Rev.1, GRE-82-43, GRE-82-44-Rev.1

28. The expert from the Special Interest Group (SIG) introduced a new draft series of amendments that defines the switching conditions of dipped-beam and Daytime Running Lamps (DRL) and the variable intensity of rear lamps in conjunction with traffic conditions (ECE/TRANS/WP.29/GRE/2019/20 and GRE-82-07). The experts from Japan and EC proposed to reduce the speed threshold in paragraph 6.2.7.5.1. from 25 to 15 km/h (GRE-82-21). GRE supported this modification.

29. The expert of OICA proposed a new version of paragraph 6.19.7.4. (GRE-82-35-Rev.1) on switching of the rear position lamps together with DRLs. Some experts were of the view that the rear position lamps "shall be on" (i.e. always on) when DRLs are on, while others expressed preference to "may be on", for the sake of reducing the energy consumption. Having extensively discussed this issue, GRE agreed that the rear position lamps "shall" be on in case of adverse weather conditions, however, the list of such conditions would need to be improved. GRE also noted that the transitional provisions in ECE/TRANS/WP.29/GRE/2019/20 had to be clarified. GRE invited SIG to consider the comments received and to submit a revised document to the next session.

30. On behalf of SIG, the expert from OICA introduced a proposal for a new series of amendments which clarifies the definitions of "switching" and "activation" and introduces the mandatory use of Emergency Stop Signal (ESS) (ECE/TRANS/WP.29/GRE/2019/29, GRE-82-06 and GRE-82-11). The experts from EC and OICA suggested modified transitional provisions (GRE-82-23, GRE-82-34 and GRE-82-44-Rev.1). Finally, GRE adopted the proposal, as amended by Annex IV, and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their March 2020 sessions as draft 07 series of amendments to UN Regulation No. 48.

31. The expert from IWG SLR recalled the previous discussions on the aiming diagram in paragraph 6.2.6.1.2. (ECE/TRANS/WP.29/GRE/81, para. 10 and Annex II) and presented GRE-82-25, which had been prepared in line with the GRE request. The expert from Poland proposed a revised diagram (GRE-82-43). For the diagram in GRE-82-25, the experts from Japan, Poland and the United Kingdom expressed their preference to maintain the 2000 lm criteria for automatic levelling and headlamp cleaning. The experts from Germany and the United Kingdom pointed out the need to consider the aiming tolerance for the purposes of, respectively, Periodic Technical Inspections (PTI) and Conformity of Production (CoP). GRE requested IWG SLR to consider the above elements and to prepare a revised document for the next session of GRE.

VIII. Other UN Regulations (agenda item 7)

A. UN Regulation No. 10 (Electromagnetic compatibility)

Documentation: ECE/TRANS/WP.29/GRE/2019/27, GRE-82-24

32. On behalf of the Task Force on Electromagnetic Compatibility (TF EMC), the expert for OICA presented their status report (GRE-82-24).

33. The expert from the Netherlands proposed improving the text of paragraph of 3.1.8. (ECE/TRANS/WP.29/GRE/2019/27). GRE adopted this proposal and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their March 2020 sessions as draft Supplement 1 to the 06 series of amendments to UN Regulation No. 10.

B. UN Regulation No. 53 (Installation of lighting and light-signalling devices for L₃ vehicles)

Documentation: ECE/TRANS/WP.29/2019/80, ECE/TRANS/WP.29/GRE/2019/18, ECE/TRANS/WP.29/GRE/2019/23, GRE-82-13, GRE-82-16, GRE-82-18, GRE-82-22, GRE-82-37, GRE-82-46-Rev.1

34. The expert from India proposed making optional the fitment of front position lamps (ECE/TRANS/WP.29/GRE/2019/18). The experts from France, Germany and the Netherlands were not in a position to support the proposal. The expert from India invited GRE to consider only the modification to paragraph 5.10. in ECE/TRANS/WP.29/GRE/2019/18. Following a brief exchange of views, GRE invited the expert from India to submit a separate document on the issue.

35. The expert from IMMA presented a consolidated text of the draft 03 series of amendments to UN Regulation No. 53 which had incorporated the latest modifications to the 01 and 02 series (ECE/TRANS/WP.29/GRE/2019/23 and GRE-82-16). GRE noted that these modifications had been also included in the draft 03 series of amendments to UN Regulation No. 53 submitted for consideration of WP.29 and AC.1 in November 2019 (ECE/TRANS/WP.29/2019/80).

36. The expert from IMMA recalled the requirements on Adaptive Driving Beam (ADB) in UN Regulation No. 48 and proposed similar provisions for amending UN Regulation No. 53 (GRE-82-13, GRE-82-18, GRE-82-46-Rev.1). Following a brief exchange of views, the Chair invited GRE experts to send their comments to IMMA with a view to preparing an official document for consideration at the next session.

37. The expert from EC recalled the draft 03 series of amendments to UN Regulation No. 53, which were submitted for consideration of WP.29 and AC.1 in November 2019 (ECE/TRANS/WP.29/2019/80) and proposed to shorten its transitional period from 1 September 2023 to 1 September 2021 (GRE-82-22). The expert from IMMA pointed out the technical challenges of implementing the 03 series of amendments and suggested that the original transitional provisions should be maintained (GRE-82-37). Following an in-depth discussion, GRE decided to keep the transitional period unchanged. At the same time, GRE agreed to scrutinize all future requests for long transitional provisions by the industry.

C. UN Regulation No. 65 (Special warning lamps)

Documentation: ECE/TRANS/WP.29/GRE/2019/17, GRE-82-09

38. The expert from Poland proposed to clarify the definition of the "on" time for the case of a group of flashes (GRE-82-09). The expert from GTB pointed out that the GTB Working Group Photometry had recently considered an alternative wording for the same purpose. GRE invited both experts to submit a new proposal to the next session.

39. The expert from GTB proposed corrections (ECE/TRANS/WP.29/GRE/2019/17). GRE supported the amendments but decided to postpone their submission to WP.29 and

AC.1, in order to combine them with the results of the discussion reflected in the previous paragraph.

IX. Other business (agenda item 8)

A. Development of the International Whole Vehicle Type Approval

Documentation: Informal document GRE-82-19

40. GRE was briefed on the activities of IWG on the International Whole Vehicle Type Approval (IWVTA).

B. Amendments to the Convention on Road Traffic (Vienna, 1968)

41. The Secretary of the Global Forum for Road Traffic Safety (WP.1) reported on the outcome of its session in September 2019. WP.1 had extensively discussed the amendments and decided to resume at the next session with the points (i), (j), (r), (t), 34, 35 and 36 in ECE/TRANS/WP.1/2017/1/Rev.1, and take into account Informal document No. 8 (March 2019), ECE/TRANS/WP.1/2019/10 (submitted by Slovakia) and ECE/TRANS/WP.1/2019/11 (submitted by Laser Europe).

42. He suggested that GRE should appoint a resource person who could participate in WP.1 sessions and would reply to technical questions from WP.1 participants. He also briefed GRE on the WP.1 activity on highly and fully automated vehicles. The Chair recalled the GRE and WP.29 discussions on the signalling requirements for automated/autonomous vehicles (see para. 53 below) and sought the opinion of WP.1 on this matter. To this end, the WP.1 Secretary invited an expert from a contracting party to the Convention on Road Traffic (Vienna, 1968) to submit to the next session of WP.1 in March 2020, a short informal document on the pros and cons of different positions. The expert from Germany volunteered to prepare the paper.

C. Decade of action for road safety 2011–2020

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

D. Requests of the Inland Transport Committee

Documentation: Informal document GRE-82-42

44. The secretariat reported that ITC, at its eighty-first session in 2019, had adopted the ITC Strategy until 2030, invited its subsidiary bodies to follow-up by aligning their work with the strategy and requested the secretariat to take the necessary actions to promote the implementation of the strategy (ECE/TRANS/288, paras. 15 (a), (c) and (g)). Furthermore, the Committee had expressed its concern for the limited progress in meeting the Sustainable Development Goal targets on road safety and those of the United Nations Decade of Action for Road Safety (ibid, para. 64) (GRE-82-42).

45. GRE noted that, in order to help countries, particularly new contracting parties, to further implement legal instruments in the area of road safety, the secretariat had prepared the draft ITC Recommendations for Enhancing National Road Safety Systems for comments by the Working Parties. GRE stressed the importance of this document and invited GRE experts to transmit their comments to the secretariat by 5 November 2019 at the latest.

E. Obsolete transitional provisions

Documentation: Informal document GRE-80-06

46. Due to lack of time, GRE decided to postpone this issue to the next session.

X. New business and late submissions (agenda item 9)

Documentation: ECE/TRANS/WP.29/2018/84, ECE/TRANS/WP.29/2018/99/Rev.2, Informal documents GRE-82-04, GRE-82-10-Rev.1, GRE-82-15, GRE-82-40

47. The expert from GTB presented driver assistance projections as a new feature of the adaptive driving beam with the aim to increase driver's comfort and road safety (GRE-82-40). The presentation was accompanied by a live demonstration of three vehicles equipped with the new feature. To allow for the driver assistance projections, the expert proposed amendments to UN Regulations Nos. 48 and [149] (GRE-82-04, GRE-82-40).

48. GRE welcomed both GTB presentation and demonstration. Several experts were of the view that the new system could bring safety benefits provided that:

- Road projections symbols are standardized (e.g. according to UN Regulation No. 121).
- Road projections symbols do not distract other drivers.

49. The expert from Japan informed GRE about his intention to commission a study on the reaction time when symbols are used. The expert of Finland recalled an ongoing discussion on the field view assistant within the Working Party on General Safety Provisions (GRSG) and called for cooperation between GRE and GRSG. GRE invited GTB to consider the comments made and decided to revert to the issue at the next session.

50. The expert from Poland proposed to add a reference to DRL in paragraph 4.4.1. of UN Regulations No. [148] (GRE-82-10-Rev.1). The expert from IWG SLR stated that this proposal would be included into the consolidated package of amendments to the above UN Regulation.

51. The expert from India proposed deleting the prohibition to use lighting and light-signalling devices other than those prescribed in UN Regulations Nos. 53 and 74 (GRE-82-15). Several experts disagreed with this proposal and therefore GRE did not support it.

52. The secretariat drew the attention of GRE to the fact that the new definition of "External status indicator", which had been introduced by Supplement 11 to the 06 series of amendments to UN Regulation No. 48 (paragraphs 2.7. and 2.37 of ECE/TRANS/WP.29/2018/84), was left out of Supplement 12 (ECE/TRANS/WP.29/2018/99/Rev.2). GRE requested the secretariat to submit a rectifying document to the March 2020 sessions of WP.29 and AC.1.

XI. Direction of future work of GRE (agenda item 10)

Documentation: ECE/TRANS/WP.29/1147, ECE/TRANS/WP.29/2019/1/Rev.1

53. The secretariat reported on the WP.29 considerations, at its June 2019 session, of the signalling requirements for automated/autonomous vehicles (ECE/TRANS/WP.29/1147, paras. 47–50). GRE noted that WP.29 had not been in a position to reach a common position and had referred this issue to WP.1.54. GRE noted that the Committee for Coordination of

Work (WP.29/AC.2) had invited the WP.29 Working Parties (GRs) to identify their priorities with a view to including them into the Programme of Work of WP.29 (ECE/TRANS/WP.29/2019/1/Rev.1). GRE requested IWG SLR to prepare a draft list of GRE priorities.

XII. Provisional agenda for the next session (agenda item 11)

55. GRE agreed to keep the same structure of the provisional agenda with the new UN Regulations Nos. [148], [149] and [150] becoming sub-items of item 4.

XIII. Election of officers (agenda item 12)

56. 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. M. Loccufier (Belgium) as Chair and Mr. D. Rovers (Netherlands) as Vice-Chair for the sessions of GRE scheduled in the year 2020.

Annex I

List of informal documents considered during the session

Informal documents GRE-82-...

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
1	(secretariat) - Updated provisional agenda for the eighty-second session of GRE	a
2	(IWG SLR) - Proposal to correct UN Regulation No. [149]	a
3	(TF SR) - Equivalence criteria	d
4	(GTB) - Proposal to amend UN Regulations Nos. 48 and [149] to allow projections of driver assistance symbols	e
5	(IWG SLR) - Proposal for correction to ECE/TRANS/WP.29/2019/81	a
6	(SIG) - Support document to ECE/TRANS/WP.29/GRE/2019/29	b
7	(SIG) - Support document to ECE/TRANS/WP.29/GRE/2019/20	e
8	(Poland) - Proposal to amend UN Regulation No. 48	c
9	(Poland) - Proposal to amend UN Regulation No. 65	e
10-Rev.1	(Poland) - Proposal to amend UN Regulation No. 148	d
11	(SIG) - Proposal for amendment to ECE/TRANS/WP.29/GRE/2019/29	b
12	(IEC) - H11 substitute interlock solution	d
13	(IMMA) - Proposal for a Supplement to the 03 series of amendments to UN Regulation No. 53	c
14	(Chair) - Running order	a
15	(India) - Consolidated proposals for amendments to UN Regulations Nos. 53 and 74	f
16	(IMMA) - Clarification on ECE/TRANS/WP.29/GRE/2019/23	f
17-Rev.2	(TF SR) - Status report	f
18	(IMMA) - Comparison of adaptive driving beam provisions between the current UN Regulation No. 48 and the proposal for amendments to UN Regulation No. 53 (GRE-82-13)	c
19	(Secretariat) - General information and WP.29 highlights	f
20	(CLEPA) - Proposal for amendments to ECE/TRANS/WP.29/GRE/2019/28	d
21	(Japan and EC) - Proposal for amendments to ECE/TRANS/WP.29/GRE/2019/20	e
22	(EC) - Proposal to amend the 03 series of amendments to UN Regulation No. 53	f
23	(EC) - Proposal for amendments to ECE/TRANS/WP.29/GRE/2019/29	b
24	(TF EMC) - Status report	f
25	(IWG SLR) - Proposal for a new series of amendments to UN Regulation No. 48	e
26	(IWG SLR) - Draft consolidated proposal for amendments to UN Regulation No. [150]	c
27	(IWG SLR) - Proposal for a Supplement to UN Regulation No. [148]	a
28	(IWG SLR) - Proposal for a Supplement to UN Regulation No. [148]	a

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
29	(GTB) - Proposal for a Supplement to UN Regulation No. 148	a
30	(IWG SLR) - Draft consolidated proposal for amendments to UN Regulation No. [148]	c
31	(IWG SLR) - Challenges to the implementation of the Unique Identifier	d
32	(France and Germany) - Consolidated version of ECE/TRANS/WP.29/GRE/2019/28	d
33	(Italy) - Proposal for amendments to UN Regulation No. [149]	a
34	(OICA) - Proposal to amend the 07 and 08 series of amendments to UN Regulation No. 48	b
35-Rev.1	(OICA) - Proposal to amend ECE/TRANS/WP.29/GRE/2019/20	e
36	(OICA) - Proposal to amend ECE/TRANS/WP.29/GRE/2019/28	d
37	(IMMA) - Comments on GRE-82-22	f
38	(Japan) - Comments on ECE/TRANS/WP.29/GRE/2019/22	d
39	(IWG SLR) - Status report	f
40	(GTB) - Driver assistance projections	e
41-Rev.1	(Germany) - Proposal to amend ECE/TRANS/WP.29/GRE/2019/20	d
42	(Secretariat) - ITC-related matters	d
43	(Poland) - Proposal to amend GRE-82-25	d
44-Rev.1	(OICA) - Proposal to amend draft transitional provisions for the 07 series of amendments to UN Regulation No. 48	b
45	(IEC) - Supporting document for ECE/TRANS/WP.29/GRE/2019/21	d
46-Rev.1	(IMMA) - ADB on leaning motorcycles	c

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 a 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 UN Regulation No. [148]

Paragraph 3.3.4.5., amend to read:

“3.3.4.5. In the case of lamps with light source module(s) on the light source module(s) bear marking of:

- (a) The trade name or mark of the applicant;
- (b) The specific identification code of the module; This specific identification code shall comprise the starting letters “MD” for “MODULE” followed by the approval mark without the circle as prescribed in paragraph 3.3.2. or by the UI without the truncated circle as prescribed in paragraph 3.3.3..

In case several non-identical light source modules are used, followed by additional symbols or characters;

The approval mark or the UI does not have to be the same as the one on the lamp in which the module is used, but both marks shall be from the same applicant;

- (c) The rated voltage or the range of voltage.”

Paragraph 5.6.11., amend to read:

“5.6.11. For direction indicator lamps of categories 1, 1a, 1b, 2a ~~or~~, 2b, **11, 11a, 11b, 11c or 12** the flash may be produced by sequential activation of their light sources if the following conditions are met:

- (a) Each light source, after its activation, shall remain lit until the end of the ON cycle;
- (b) The sequence of activation of the light sources shall produce a signal which proceeds in a uniform progressive manner from inboard towards the outboard edge of the light emitting surface;
- (c) It shall be one signal with no interruption and no vertical oscillations (e.g. not more than one change of direction along the vertical axis). The distance between two adjacent/tangential distinct parts of the light emitting surface of the sequential direction indicator shall not exceed 50mm, when measured perpendicularly to the reference axis, instead of the values defined in paragraph 5.7.2. of UN Regulation No. 48 **or paragraph 5.7.2. of UN Regulation No. 86 or paragraph 5.6.2. of UN Regulation No. 53**. These interruptions of the signal shall not create any overlap in the vertical axis between the different parts, from inboard towards the outboard of the vehicle, and shall not be used for any other lighting or light signalling functions;
- (d) The variation shall finish no more than 200ms after the beginning of the ON cycle;
- (e) The orthogonal projection of the light emitting surfaces of the direction indicator in the direction of the axis of reference shall be circumscribed by a rectangle on a plane normal to the axis of reference and having its longer sides parallel to the H-plane. The ratio of the horizontal to the vertical sides shall not be less than 1.7.

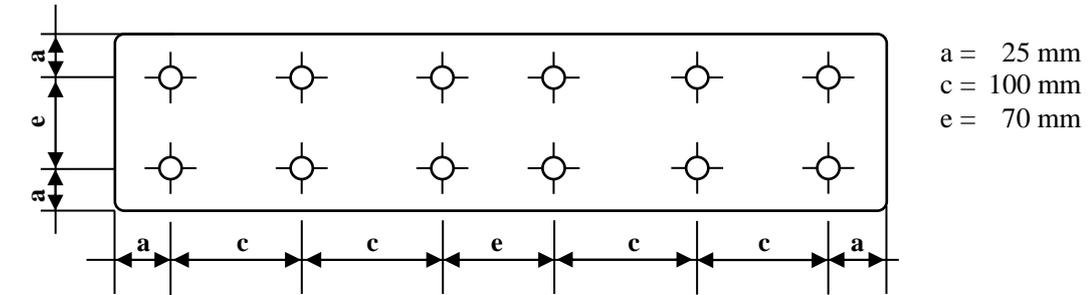
Compliance to the conditions mentioned above shall be verified in flashing mode.”

Annex 3, paragraph 3.2., figure A3-X, amend to read:

“3.2. Category 1b - wide plate (520 x 120 mm)

Figure A3-X

Measuring points for plate size 520 x 120 mm



”

Annex III

Adopted amendments to UN Regulation No. [149]

Paragraph 5.3.2.8.2., amend to read:

"5.3.2.8.2. Other modes:

When signal inputs according to paragraph **5.3.1.4.3.** ~~5.3.1.5.3~~ apply, the requirements of the paragraph 5.3.2. shall be fulfilled."

Annex IV

Adopted amendments to ECE/TRANS/WP.29/GRE/2019/29

Paragraph 5.11. and related subparagraphs, amend to read:

- "5.11. The electrical connections shall be such that the front and rear position lamps, the end-outline marker lamps, if they exist, the side-marker lamps, if they exist, and the rear registration plate lamp can only be switched ON and OFF simultaneously.
- 5.11.1. This ~~condition~~ **requirement** does not apply **when one or more of the following conditions exist:**
- ~~5.11.1.1.~~ (a) ~~When front and rear position lamps are switched ON, as well as side-marker lamps when combined or reciprocally incorporated with said lamps, are switched ON as parking lamps; or~~
- ~~5.11.1.2.~~ (b) ~~When side-marker lamps flash in conjunction with direction indicators; or~~
- (c) **daytime running lamps are switched ON;**
- ~~5.11.1.3. When light signaling system operates according to paragraph 6.19.7.4.~~
- ~~5.11.2.~~ (d) ~~to front position lamps when their function is substituted under the provisions of paragraph 5.12.1. below.~~
- 5.11.32. In the case of an interdependent lamp system, all light sources shall be switched ON and OFF simultaneously."

Paragraph 6.26.7., amend to read:

- "6.26.7. Electrical Connections
- Manoeuvring lamps shall be so connected that they cannot be ~~activated~~ **switched ON** unless the main-beam headlamps or the dipped-beam headlamps are switched ON at the same time.
- The manoeuvring lamp(s) shall be ~~activated~~ **switched ON** automatically for slow manoeuvres up to ~~40 km/h~~ **15 km/h** provided that one of the following conditions is fulfilled:
- (a) Prior to the vehicle being set in motion for the first time after each manual activation of the propulsion system; or
- (b) Reverse gear is engaged; or
- (c) A camera based system which assists parking manoeuvres is ~~activated~~ **operating.**
- The manoeuvring lamps shall be automatically switched ~~off~~ **OFF** if the forward speed of the vehicle exceeds ~~40 km/h~~ **15 km/h** and they shall remain switched ~~off~~ **OFF** until the **switch ON** conditions ~~for activation~~ are met again."

At the end of paragraph 12., add a new paragraph 12.6. and its sub-paragraphs to read:

- "12.6. **Transitional provisions applicable to the 07 series of amendments**
- 12.6.1. **As from the official date of entry into force of the 07 series of amendments, no Contracting Party applying this UN Regulation shall refuse to grant or**

- refuse to accept UN type approvals under this UN Regulation as amended by the 07 series of amendments.
- 12.6.2.** As of 1 June 2022, Contracting Parties applying the 07 series of amendments to this UN Regulation shall not be obliged to accept UN type approvals to the preceding series of amendments, first issued after 1 June 2022.
- 12.6.3.** Until 1 June 2024, Contracting Parties applying the 07 series of amendments to this Regulation shall accept UN type approvals to the preceding series of amendments and extensions thereof, first issued before 1 June 2022.
- 12.6.4.** As from 1 June 2024, Contracting Parties applying the 07 series of amendments to this UN Regulation shall not be obliged to accept UN type approvals, including any extensions, issued to the preceding series of amendments to this UN Regulation without emergency stop signal installed.
- 12.6.5.** Notwithstanding the transitional provisions above, Contracting Parties who start to apply this UN Regulation after the date of entry into force of the most recent series of amendments are not obliged to accept UN type approvals which were granted in accordance with any of the preceding series of amendments to this UN Regulation.
- 12.6.6.** Notwithstanding paragraph 12.6.4., Contracting Parties applying this UN Regulation shall continue to accept UN type approvals to the preceding series of amendments to this UN Regulation, for the vehicle types which are not affected by the changes introduced by the 07 series of amendments.
- 12.6.7.** Contracting Parties applying this UN Regulation shall not refuse to grant UN type approvals according to any preceding series of amendments to this UN Regulation or extensions thereof."

Annex V**GRE informal groups**

<i>Informal group</i>	<i>Chair(s)</i>	<i>Secretary</i>
Simplification of the Lighting and Light-Signalling UN Regulations (SLR)	Mr. Michel Loccufier (Belgium) Phone: +32 474 989 023 Email: michel.loccufier@mobilite.fgov.be	Mr. Davide Puglisi (GTB) Phone: +39 011 562 11 49 Fax: +39 011 53 21 43 Email: secretary@gtb-lighting.org
