

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

Geneva, 29 April–3 May 2024

Report of the Working Party on Lighting and Light-Signalling on its Ninetieth 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	3
VI. UN Regulations on Light Sources and the Consolidated Resolution on the Common Specifications of Light Source Categories (agenda item 5)	8–12	4
VII. Installation UN Regulations (agenda item 6)	13–21	4
A. UN Regulation No. 48 (Installation of Lighting and Light-Signalling Devices)	13–19	4
B. UN Regulation No. 74 (Installation of Lighting and Light-Signalling Devices for Mopeds)	20	5
C. UN Regulation No. 86 (Installation of Lighting and Light-Signalling Devices for Agricultural Vehicles)	21	5
VIII. Device UN Regulations (agenda item 7)	22–26	6
A. UN Regulation No. 148 (Light-Signalling Devices).....	22–23	6
B. UN Regulation No. 149 (Road Illumination Devices).....	24–26	6
IX. UN Regulation No. 10 (Electromagnetic Compatibility) (agenda item 8)	27–30	6
X. Other UN Regulations (agenda item 9).....	31	7
XI. Pending Amendment Proposals (agenda item 10).....	32	7
XII. Other Business (agenda item 11)	33–43	7
A. Development of the International Whole Vehicle Type Approval	33	7
B. Amendments to the Convention on Road Traffic (Vienna, 1968)	34	8



C.	Miscellaneous	35–43	8
XIII.	Direction of Future Work (agenda item 12)	44–47	9
XIV.	Provisional Agenda for the Next Session (agenda item 13)	48	9

Annexes

I.	List of Informal Documents Issued in Connection with the Session.....	10
II.	Adopted Amendments to the Terms of Reference of the Informal Working Group "Simplification of the Lighting and Light-Signalling Regulations" (annex III to ECE/TRANS/WP.29/GRE/86).....	12
III.	GRE Informal Working Groups	13

I. Attendance

1. The Working Party on Lighting and Light-Signalling (GRE) held its ninetieth session from 29 April to 3 May 2024 in Geneva. The meeting was chaired by Mr. T. Kärkkäinen (Finland). 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) (ECE/TRANS/WP.29/690/Rev.2): Australia, Canada, China, Finland, France, Germany, India, Italy, Japan, Netherlands, Norway, Poland, Republic of Korea, Spain, United Kingdom of Great Britain and Northern Ireland, United States of America. An expert from the European Commission (EC) participated. Experts from the following non-governmental organizations also took part in the session: American Automotive Policy Council (AAPC), European Agricultural Machinery Association (CEMA), European Association of Automotive Suppliers (CLEPA), Fédération Internationale de l'Automobile (FIA), Fédération Internationale de Motocyclisme (FIM), International Automotive Lighting and Light Signalling Expert Group (GTB), International Electrotechnical Commission (IEC), International Motor Vehicle Inspection Committee (CITA), 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/2024/1, Informal documents GRE-90-01, GRE-90-09, GRE-90-12

2. GRE considered and adopted the agenda (ECE/TRANS/WP.29/GRE/2024/1), as reproduced in GRE-90-01 that includes the informal documents distributed during the session. GRE also noted the running order proposed by the Chair (GRE-90-09).

3. The list of informal documents is contained in annex I. The list of GRE informal working groups is reproduced in annex III.

4. GRE was informed about the highlights of the recent sessions of WP.29 and noted the copyright requirements for all presentations or materials submitted to the secretariat and published on the UNECE website (GRE-90-12). The secretariat requested the assistance of the secretaries of various informal working groups and task forces in reviewing copyright issues in the content published on the UNECE wiki pages.

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

5. No information was reported under this item.

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

Documentation: ECE/TRANS/WP.29/2023/89

6. GRE noted that WP.29 had adopted a framework document on vehicle whole-life compliance prepared by the Informal Working Group on Periodical Technical Inspections (IWG PTI) (ECE/TRANS/WP.29/2023/89).

V. Simplification of Lighting and Light-Signalling UN Regulations (agenda item 4)

Documentation: Informal documents GRE-90-07, GRE-90-08

7. GRE noted the progress of the Informal Working Group "Simplification of the Lighting and Light-Signalling Regulations" (IWG SLR) (GRE-90-08) and updated its terms

of reference with an extension of the mandate until December 2027 (GRE-90-07 and annex II of this report).

VI. UN Regulations on Light Sources and the Consolidated Resolution on the Common Specification of Light Source Categories (agenda item 5)

Documentation: ECE/TRANS/WP.29/GRE/2024/2, Informal documents GRE-90-02, GRE-90-13, GRE-90-34

8. The expert from the Task Force on Substitutes and Retrofits (TF SR) reported on their activities (GRE-90-13) and submitted draft amendments to the Consolidated Resolution on the common specification of light source categories (R.E.5) that introduced a high-power light-emitting diode replacement (LED_r) light source ("LED retrofit") for the category H11 (ECE/TRANS/WP.29/GRE/2024/2 and GRE-90-02).

9. The expert of OICA highlighted a number of concerns over the TF SR proposal and installation of LED retrofits in the aftermarket, in particular the different beam patterns in the far- and near-fields of the vehicle and stressed that vehicle manufacturers would not accept responsibility for issues arising from the installation of such components (GRE-90-34).

10. The expert from France agreed with the OICA concerns and reserved his position on the TF SR proposal, while several other experts from contracting parties held the view that LED retrofits were an acceptable compromise based on the "intelligent equivalence" principle.

11. Finally, GRE adopted the proposal and requested the secretariat to submit it for consideration at the November 2024 session of WP.29 as an amendment to R.E.5. GRE also agreed that TF SR should continue its activities and focus on LED retrofits of the categories H4 and H7. GRE noted that the expert from the United Kingdom would chair TF SR, while the expert from Germany would vice-chair.

12. GRE recalled its previous discussion on the advantages of the LED technology for power consumption and reducing greenhouse gas emissions and noted that GTB would report the results of their ongoing study on this topic to the next session.

VII. Installation UN Regulations (agenda item 6)

A. UN Regulation No. 48 (Installation of Lighting and Light-Signalling Devices)

Documentation: ECE/TRANS/WP.29/GRE/2024/3, ECE/TRANS/WP.29/GRE/2024/4, ECE/TRANS/WP.29/GRE/2024/5, Informal documents GRE-89-24, GRE-90-03, GRE-90-08, GRE-90-10, GRE-90-14, GRE-90-18, GRE-90-22, GRE-90-26, GRE-90-30

13. The experts from GTB proposed several amendments that aligned the requirements in UN Regulation No. 48 with the updated requirements in UN Regulation No. 149 (ECE/TRANS/WP.29/GRE/2024/3), that aligned the requirements for the passing-beam vertical inclination for off-road vehicles between the 06, 07, 08 series and the 09 series of amendments to UN Regulation No. 48 (ECE/TRANS/WP.29/GRE/2024/4) and that avoided exceeding the aggregate maximum intensity of the main-beam headlamps (ECE/TRANS/WP.29/GRE/2024/5 as replaced by GRE-90-10). GRE adopted these proposals in principle and decided to postpone their submission to WP.29 and AC.1, in order to combine them in the future with other amendment proposals to the same series of amendments.

14. The expert from the Task Force on Lamps Under Parked Conditions (TF LUPC) reported on their activities (GRE-90-18) and presented a proposal for the TF LUPC Terms of Reference and rules of procedure (GRE-90-03). GRE adopted the proposal upon

understanding that this decision should not be regarded as a precedent for requiring all task forces in the future to establish their terms of reference.

15. The expert from France recalled the discussion on work lamps at the previous session and introduced draft amendments (GRE-90-26). Following a brief exchange of views, GRE invited experts to provide their comments to France and to continue consideration at the next session on the basis of an official document.

16. GRE recalled its earlier discussion on the perceived blueish colour of the white light emitted by front lighting units (GRE-89-24) and noted that the expert from France would submit a proposal for consideration at the next session.

17. The expert from Norway requested a guidance on the interpretation of paragraph 5.22. of UN Regulation No. 48 on lamps that are deemed not to be present (GRE-90-14). The Chair of IWG SLR recalled their status report and list of future activities (GRE-90-08) which included clarification on this and related issues in UN Regulations Nos. 48, 53 and 74, based on the principle “prohibited if not allowed” for the lamp installation. Some experts pointed out that the main purpose of paragraph 5.22. was not to leave holes in the car body in case a specific lamp (e.g. left/right rear fog lamp) was not used, for instance, for the right/left hand traffic.

18. The expert from China identified possible inconsistencies in the 08 series of amendments to UN Regulation No. 48 (GRE-90-30). Following a brief exchange of views, the Chair invited the expert to draft amendment proposals for consideration at the next session. The expert from EC pointed out that they would not react to the future proposals from China, as coming from the country which is not a contracting party to the 1958 Agreement.

19. The expert from OICA proposed to remove the current restriction in paragraph 6.12.1. that prohibits the fitment of parking lamps to vehicles which exceed 2 m in width (GRE-90-22). Several experts supported the proposal and further pointed out the need to also remove the length restriction of 6 m in the same paragraph. GRE realized that these two restrictions had originated in the 1968 Vienna Convention on Road Traffic, and invited OICA to update their proposal for consideration at the next session.

B. UN Regulation No. 74 (Installation of Lighting and Light-Signalling Devices for Mopeds)

Documentation: ECE/TRANS/WP.29/GRE/2024/9, Informal document GRE-90-15-Rev.1

20. The expert from Germany submitted amendment proposals that enabled the approval of front and rear direction indicators which could be activated simultaneously (ECE/TRANS/WP.29/GRE/2024/9). The expert from France suggested text improvements. GRE adopted the proposal, as amended by GRE-90-15-Rev.1 and requested the secretariat to submit it for consideration and vote at the November 2024 sessions of WP.29 and AC.1 as draft Supplement 1 to the 03 series of amendments to UN Regulation No. 74.

C. UN Regulation No. 86 (Installation of Lighting and Light-Signalling Devices for Agricultural Vehicles)

Documentation: ECE/TRANS/WP.29/GRE/2023/12/Rev.1, ECE/TRANS/WP.29/GRE/2024/10, Informal documents GRE-90-17, GRE-90-32

21. The expert from CEMA introduced amendment proposals to the 02 and 03 series of amendments to UN Regulation No. 86 which covered agricultural vehicles of any dimensions, brought technical clarifications and provided editorial corrections (ECE/TRANS/WP.29/GRE/2023/12/Rev.1, ECE/TRANS/WP.29/GRE/2024/10, GRE-90-17). A number of experts commented on the documents. GRE adopted the proposals, as amended by GRE-90-32, and requested the secretariat to submit them for consideration and

vote at the November 2024 sessions of WP.29 and AC.1 as draft Supplement 2 to the 02 series and draft Supplement 1 to the 03 series of amendments to UN Regulation No. 86.

VIII. Device UN Regulations (agenda item 7)

A. UN Regulation No. 148 (Light-Signalling Devices)

Documentation: ECE/TRANS/WP.29/GRE/2024/6, Informal documents GRE-90-31, GRE-90-39

22. The expert from GTB proposed corrections in the communication form (ECE/TRANS/WP.29/GRE/2024/6). The expert from France suggested further clarification. GRE adopted the proposal, as amended by GRE-90-39, and requested the secretariat to submit it for consideration and vote at the November 2024 sessions of WP.29 and AC.1 as draft Supplement 6 to the 00 series and draft Supplement 3 to the 01 series of amendments to UN Regulation No. 148.

23. The experts from Germany and the United Kingdom reported on a direction indicator of category 5 with sequential activation that had been type approved (GRE-90-31). These experts reminded that, according to UN Regulations Nos. 6 and 148, sequential activation of the light sources was only allowed for direction indicators of categories 1, 2, 11 and 12, but not for categories 5 and 6. Therefore, they held the view that the approval of the category 5 direction indicator with sequential activation did not conform to the requirements of the UN Regulations and should be considered invalid. GRE concurred with this view.

B. UN Regulation No. 149 (Road Illumination Devices)

Documentation: ECE/TRANS/WP.29/GRE/2024/7, ECE/TRANS/WP.29/GRE/2024/8, Informal documents GRE-90-29, GRE-90-41

24. The expert of GTB proposed to clarify the markings and measuring of the quality of the "cut-off" (ECE/TRANS/WP.29/GRE/2024/7 and ECE/TRANS/WP.29/GRE/2024/8). GRE adopted the proposal and requested the secretariat to submit it for consideration and vote at the November 2024 sessions of WP.29 and AC.1 as draft Supplement 4 to the 01 series of amendments to UN Regulation No. 149 (also see the next paragraph).

25. The expert from China pointed out possible inconsistencies in various tables for the conformity of production (GRE-90-29). GRE requested GTB to study the issue and prepare corrections for consideration at the next session. For Table 22 (GRE-90-29, page 2), GRE agreed to include, without delay, the proposed correction in draft Supplement 4 to the 01 series of amendments to UN Regulation No. 149 (see the previous paragraph).

26. The expert from China reported on driver assistance projections (DAP) according to a new national standard (GRE-90-41). GRE took note of this information.

IX. UN Regulation No. 10 (Electromagnetic Compatibility) (agenda item 8)

Documentation: ECE/TRANS/WP.29/GRE/2023/27/Rev.1, Informal documents GRE-90-19, GRE-90-21-Rev.3, GRE-90-23, GRE-90-33, GRE-90-35, GRE-90-36, GRE-90-37, GRE-90-38

27. The Chair of the Informal Working Group on Electromagnetic Compatibility (IWG EMC) reported on their activities (GRE-90-33) and presented a revised proposal for the new 07 series of amendments to UN Regulation No. 10 (ECE/TRANS/WP.29/GRE/2023/27/Rev.1 as amended by GRE-90-19).

28. The experts of CLEPA and OICA proposed revising footnote 1 of the flowcharts in annexes 4, 11, 12, 13, 15 and 16, as well as to modify the modulation frequency range in

annexes 6 and 9 (GRE-90-23, GRE-90-35 and GRE-90-37). The expert from OICA also proposed modifying the transitional provisions (GRE-90-21-Rev.3).

29. Following an in-depth discussion, GRE adopted ECE/TRANS/WP.29/GRE/2023/27/Rev.1, as amended by GRE-90-19, GRE-90-21-Rev.3, GRE-90-36 (see the paragraph below), GRE-90-37 and GRE-90-38, and requested the secretariat to submit it for consideration and vote at the November 2024 sessions of WP.29 and AC.1 as draft 07 series of amendments to UN Regulation No. 10.

30. The expert from Japan tabled a correction to the 06 series of amendments to UN Regulation No. 10 which aimed to adapt the provisions on markings and conformity of production to Revision 3 of the 1958 Agreement (GRE-90-36). GRE adopted the proposal but decided to postpone its submission to WP.29 and AC.1, awaiting other amendment proposals to the 06 series of amendments. At the same time, GRE agreed that the adopted proposal should also become part of the draft 07 series of amendments to UN Regulation No. 10 that would be submitted to the November 2024 sessions of WP.29 and AC.1 (see the above paragraph).

X. Other UN Regulations (agenda item 9)

31. No proposals were considered under this item.

XI. Pending Amendment Proposals (agenda item 10)

Documentation: ECE/TRANS/WP.29/GRE/2023/13, ECE/TRANS/WP.29/GRE/2024/3, ECE/TRANS/WP.29/GRE/2024/4, Informal documents GRE-88-17, GRE-90-10, GRE-90-36

32. GRE recalled that, at its present and previous sessions, it had adopted the following amendments but had decided to postpone their submission to WP.29, in order to combine them with future amendment proposals to the same UN Regulation and series of amendments:

- GRE-88-17 and ECE/TRANS/WP.29/GRE/2023/13 as a Supplement to the 03, 04 and 05 series of amendments to UN Regulation No. 48;
- ECE/TRANS/WP.29/GRE/2024/3 as a Supplement to the 06, 07, 08 and 09 series of amendments to UN Regulation No. 48;
- ECE/TRANS/WP.29/GRE/2024/4 as a Supplement to the 06, 07, 08 series and the 09 series of amendments to UN Regulation No. 48;
- GRE-90-10 as a Supplement to the 09 series of amendment to UN Regulation No. 48; and
- GRE-90-36 as a Supplement to the 06 series of amendments to UN Regulation No. 10.

XII. Other Business (agenda item 11)

A. Development of the International Whole Vehicle Type Approval

Documentation: Informal document GRE-90-04

33. In line with the WP.29 request at its 191st session in November 2023, GRE considered the pros and cons of using the Unique Identifier (UI) in the UN Regulations under the purview of GRE, based on GRE-90-04 submitted by the Informal Working Group on Electronic Database for the Exchange of Type Approval Documentation (IWG DETA). Given the financial and practical complications of introducing UI, GRE agreed not to pursue UI.

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

Documentation: ECE/TRANS/WP.1/187

34. GRE was briefed on the activities of the Global Forum for Road Traffic Safety (WP.1) and its Group of Experts on drafting a new legal instrument on the use of automated vehicles in traffic (LIAV) on the issue of automated driving system (ADS) vehicles (ECE/TRANS/WP.1/187, paragraphs 24 and 25).

C. Miscellaneous

Documentation: Informal documents GRE-90-11, GRE-90-16, GRE-90-20, GRE-90-27, GRE-90-28, GRE-90-40

35. The expert from Slovakia submitted GRE-90-11 that described a new warning device with the shape of an equilateral triangle and requested GRE to assess and consider the relevant changes in UN Regulation No. 27, with the aim to envisage the new warning device.

36. GRE noted that the advance warning triangle in UN Regulation No. 27 (superseded by UN Regulation No. 150) is a retro-reflective device, while the proposed new warning device is self-illuminating (a flashing lamp). For this reason, GRE agreed that the new device was essentially incompatible with UN Regulation No. 27.

37. Some experts held the view that the new device had advantages for road safety. The expert from Spain pointed out that a similar warning device (the so-called V16 light¹) had been authorized in their country and could replace the advance warning triangle in the future. He added that, before taking a decision, a study would be conducted.

38. GRE noted that deployment of such devices is regulated by national law. Furthermore, while the technical requirements for the advance warning triangle are harmonized by UN Regulations Nos. 27 and 150, its actual use on the road is governed by national law: it is obligatory in many European countries, while recommended in others, for example, in the United Kingdom. The same applies to vehicle safety features such as the e-call system or hazard warning lights.

39. Finally, GRE decided not to amend UN Regulation No. 27 and to revert to the topic of warning devices in the future, once the results of the Spanish study would be available.

40. GRE took note that WP.29, at its November 2023 session, recalled annex 7 on the software updates in the Consolidated Resolution on the Construction of Vehicles (R.E.3), and invited its subsidiary Working Parties (GRs) to evaluate which UN Regulations should be amended to permit software updates. To this end, the expert from France presented their analysis which identified UN Regulation No. 45 (Headlamp Cleaners) and the installation UN Regulations Nos. 48, 53, 74 and 86 for the purposes of software updates (GRE-90-27). Following a brief exchange of views, GRE agreed to revert to this issue in the future.

41. The expert from GTB briefly presented draft proposals for amendments to UN Regulations Nos. 48 and 148 that aimed to introduce signal road projections for reversing lamps and direction indicators (GRE-90-16). The expert from France supported both types of projections, while the expert from the Netherlands considered the reversing projections but made a reservation regarding the direction indicator projections. The expert from the United Kingdom expressed concerns over the proliferation of new technologies without substantial benefits to road safety. GRE agreed to resume consideration at the next session.

42. The expert of FIA presented the results of their 2024 European consumer study on glare in road traffic (GRE-90-20 and GRE-90-40), according to which the majority of drivers felt dazzled in road traffic, and three out of four of the respondents believed that glare prevention should be better regulated. To address these concerns, many GRE experts spoke in favour of establishing a task force (TF), while one expert felt that an informal working group (IWG) would be more appropriate. Without taking a decision, GRE invited interested parties to discuss this issue, and to prepare for the next session draft terms of reference and

¹ https://en.wikipedia.org/wiki/V16_warning_beacon_lights

rules of procedure for either a new TF or new IWG. The expert from GTB recalled their 2018 glare and visibility forum, organized in conjunction with eightieth session of GRE and indicated that GTB would be acting as secretary of TF.

43. The expert from Germany reported on a case where a manufacturer logo was made part of a road illumination device (GRE-90-28). He held the view that a manufacturer logo could only be approved as part of a light-signalling device of UN Regulation No. 148, but not as part of a road illuminating device approved to UN Regulation No. 149. GRE agreed that a manufacturer logo is allowed in signalling devices (UN Regulation No. 148) only, and prohibited in road illumination devices (UN Regulation No. 149). To avoid misinterpretation, GRE pointed out that UN Regulation No. 149 should be amended.

XIII. Direction of Future Work (agenda item 12)

Documentation: ECE/TRANS/WP.29/GRE/2023/9/Rev.2, Informal documents GRE-90-05, GRE-90-06, GRE-90-24, GRE-90-25

44. The Chair of the Task Force on Autonomous Vehicle Signalling Requirements (TF AVSR) reported on their activities (GRE-90-25) and presented a revised amendment proposal for UN Regulation No. 48 to cater for ADS (ECE/TRANS/WP.29/GRE/2023/9/Rev.2, GRE-90-05 and GRE-90-24).

45. GRE identified several points which would require further consideration and requested TF AVSR to prepare an updated proposal for the next session. In the meantime, GRE experts were invited to send their comments to TF AVSR.

46. GRE realized that the finalization of the amendment proposal on ADS fitness to UN Regulation No. 48 and its submission to WP.29 would also require deliverables from other Working Parties and their informal working groups or task forces. GRE invited its Chair to brief WP.29 and the Administrative Committee for Coordination of Work (AC.2) on the status of GRE activities and to request WP.29 and AC.2 for guidance on further steps.

47. The expert of TF AVSR presented a draft concept for a separate UN Regulation on ADS marker lamps, including background, motivation, possible definitions and key aspects (GRE-90-06). The expert from the United Kingdom doubted the need for and benefits of ADS marker lamps without addressing the issue of what other road users were supposed to do in case they see these lamps activated. The expert from Japan reported that they were conducting a national survey on the topic whose results would be brought to the attention of GRE. The experts from France and IMMA briefly discussed the applicability of ADS marker lamps to category L vehicles. The Chair invited TF AVSR to consider this issue.

XIV. Provisional Agenda for the Next Session (agenda item 13)

48. GRE noted that the next session had been scheduled from 22 to 25 October 2024 and that the deadline for submission of working documents would be 29 July 2024. GRE agreed to keep the same structure of the provisional agenda for the next session, subject to adding the election of officers and the task force on glare and deleting the Unique Identifier.

Annex I

List of Informal Documents Issued in Connection with the Session

Informal documents GRE-90-...

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
1	(secretariat) Updated provisional agenda	b
2	(TF SR) Supporting document to ECE/TRANS/WP.29/GRE/2024/2	a
3	(TF LUPC) Terms of Reference and Rules of Procedure of the Task Force on Lamps Under Parked Conditions (TF LUPC)	a
4	(IWG DETA) Discussion paper on the appropriateness and proportionality of the Unique Identifier marking for GRE UN Regulations	f
5	(TV AVSR) Proposal to amend ECE/TRANS/WP.29/GRE/2023/9/Rev.2	e
6	(TF AVSR) Automated Driving Systems Marker Lamp (ADS ML)	e
7	(IWG SLR) Proposal to update the IWG SLR Terms of Reference	a
8	(IWG SLR) Progress report	f
9	(Chair) Running order	b
10	(GTB) Proposal to replace ECE/TRANS/WP.29/GRE/2024/5	d
11	(Slovakia) Warning device	f
12	(secretariat) General information and WP.29 highlights	f
13	(TF SR) Status report	f
14	(Norway) Interpretation of paragraph 5.22 of UN Regulation No. 48-06	f
15-Rev.1	(Germany) Revision of ECE/TRANS/WP.29/GRE/2024/9	b
16	(GTB) Draft proposal to amend UN Regulations Nos. 48 and 148 to introduce Signal Road Projection	c
17	(CEMA) Amendment to UN Regulation No. 86	b
18	(TF LUPC) Status report	f
19	(IWG EMC) Editorial improvements to ECE/TRANS/WP.29/GRE/2023/27/Rev.1	b
20	(FIA) Glare on Road Traffic: European consumer study 2024	d
21-Rev.3	(OICA) Improvements to ECE/TRANS/WP.29/GRE/2023/27/Rev.1	b
22	(OICA) Parking lamp discussion document	e
23	(OICA and CLEPA) Joint position on the proposal for a new 07 series of amendments to UN Regulation No. 10	b
24	(TF AVSR) Revision of ECE/TRANS/WP.29/GRE/2023/9/Rev.2	e
25	(TF AVSR) Status report	f
26	(France) Proposal for a Supplement on work lamps to UN Regulation No. 48	c
27	(France) List of relevant GRE UN Regulations for software updates	d

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
28	(Germany) Manufacturer logo as part of a road illumination device	f
29	(China) Questions regarding interpretation of UN Regulation No. 149	d
30	(China) Questions regarding interpretation of UN Regulation No. 48-08	c
31	(Germany and United Kingdom) Direction indicator of category 5 with sequential activation of the light sources	f
32	(CEMA) Amendments to ECE/TRANS/WP.29/GRE/2023/12/Rev.1 and ECE/TRANS/WP.29/GRE/2024/10	b
33	(IWG EMC) Status report	f
34	(OICA) Position paper on the LED retrofit light sources proposal from TF SR	f
35	(OICA and CLEPA) Joint position on ECE/TRANS/WP.29/GRE/2023/27/Rev.1	b
36	(Japan) Proposal for a corrigendum to the 06 series of amendments to UN Regulation No. 10	a
37	(OICA and CLEPA) Joint contribution to GRE-90-23 and GRE-90-35	b
38	(Spain, EC, OICA) Joint proposal on the flowchart note in ECE/TRANS/WP.29/GRE/2023/27/Rev.1	b
39	(GTB) Proposal to replace ECE/TRANS/WP.29/GRE/2024/6	b
40	(FIA) European survey on glare in road traffic	d
41	(China) Commission report of DAP according to the new standard	f

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 the Terms of Reference of the Informal Working Group "Simplification of the Lighting and Light-Signalling Regulations" (annex III to ECE/TRANS/WP.29/GRE/86)

Chapter V, Stage 2, *amend to read*:

“V. Work Plan and Time Schedule

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STAGE 2	The overarching objective is to update and harmonize the technical requirements for lighting and light-signalling to be <u>suitable for global implementation under the 1958 and 1998 Agreements</u> .	
STAGE 2 STEP 1	Revise the technical requirements of UN Regulations Nos. 148, 149 and 150, to become technology neutral with performance-based and objective test requirements, considering glare and visibility. Amendments will also be required for UN Regulation No. 48 considering the work of IWG-VGL.	
	Informal submission to the eighty-third session of GRE	October 2020
	Final consideration at the eighty-fifth session of GRE	October 2021
	Adoption by WP.29	June 2022
STAGE 2 STEP 2	Simplify and update the technical requirements of the UN installation Regulations (Nos. 48, 53, 74, 86), to become technology neutral with performance-based and objective test requirements. Amendments to UN Regulation No. 48 concerning headlamp levelling (in separate SLR meetings) and to UN Regulations Nos. 48, 53, 74 and 86 concerning device transition. These amendments were delivered and eventually adopted at the 192 nd WP.29 session in March 2024.	
	Informal submission to GRE	April 2025
	Final consideration at GRE	April 2026
	Adoption by WP.29	2027

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Annex III

GRE Informal Working Groups

<i>Informal group</i>	<i>Chair(s) and Co-Chair(s)</i>	<i>Secretary</i>
Simplification of the Lighting and Light-Signalling UN Regulations (SLR)	Mr. Derwin Rovers (Netherlands) Mr. Aleksander Lazarevic (EC)	Mr. Davide Puglisi (GTB)
Electromagnetic Compatibility (EMC)	Mr. Zissis Tsakiridis (Germany)	Mr. Jean-Marc Prigent (OICA)