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### **Economic Commission for Europe**

Inland Transport Committee

#### World Forum for Harmonization of Vehicle Regulations

Working Party on Automated/Autonomous and Connected Vehicles

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# Proposal for a supplement to the 02 series of amendments to UN Regulation No. 131 (AEBS)

#### Submitted by the expert from Australia\*

The text reproduced below was prepared by the expert from Australia. It proposes a supplement to the 02 series of amendments to UN Regulation No. 131 (Advanced Emergency Braking Systems (AEBS)), to clarify requirements in the scope requesting for reciprocal recognition with UN Regulation No. 152 (Advanced Emergency Braking System (AEBS) for  $M_1$  and  $N_1$  vehicles). This proposal is based on informal document WP.29-191-23 presented at the 191st session of WP.29 in November 2023. The modifications to the current text of the Regulation are marked in bold for new or strikethrough for deleted characters.

<sup>\*</sup> In accordance with the programme of work of the Inland Transport Committee for 2024 as outlined in proposed programme budget for 2024 (A/78/6 (Sect. 20), table 20.5), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

#### I. Proposal

Amend Section 1., to read:

#### 1. Scope

This Regulation applies to the approval\* of vehicles of Category  $M_2$ ,  $M_3$ ,  $N_2$  and  $N_3^1$  with regard to an on-board system to:

- (a) Avoid or mitigate the severity of a rear-end in lane collision with a preceding vehicle,
- (b) Avoid or mitigate the severity of an impact with a pedestrian.

<u>\* For vehicles of category M<sub>2</sub>, and for those of category M<sub>3</sub>/N<sub>2</sub> with a maximum weight below or equal to 8t, equipped with hydraulic braking, Contracting Parties that are signatories to both UN Regulation No. 152 and this Regulation shall recognize approvals to either Regulation as equally valid.</u>

\* For vehicles of vehicle categories  $M_2$ ,  $M_3$  and  $N_2$  with a maximum mass below or equal to 8t, equipped with a hydraulic braking system, Contracting Parties that are signatories to UN Regulation No. 13, UN Regulation No. 152 and this Regulation shall recognize an approval to UN Regulation No. 152 for a category  $N_1$  vehicle from the same vehicle family as the vehicle to be approved as complying with this Regulation. For the purposes of this recognition, vehicles are considered of the same family if they are covered by the same UN Regulation No. 13 approval and do not differ in such aspects as described in paragraph 2.4. of this regulation.

#### **II.** Justification

1. At the 191st session of WP.29, the representative of Australia sought to clarify the type-approval process concerning the reciprocal recognition of UN Regulation No. 131 – Advanced Emergency Braking Systems (AEBS), 02 series of amendments and UN Regulation No. 152 – Advanced Emergency Braking System (AEBS) for  $M_1$  and  $N_1$  vehicles.

2. UN Regulation No. 131, 02 series of amendments, includes references to UN Regulation No. 152 requiring Contracting Parties that are signatories to both Regulations to recognise approvals to either Regulation as equally valid for vehicles of category  $M_2$ , and for those of category  $M_3/N_2$  with a maximum weight below or equal to 8t, equipped with hydraulic braking.

3. While supportive of the intent of recognising some UN Regulation No. 152 approvals for UN Regulation No. 131, the expert from Australia believes the operational details of this reciprocal recognition is unclear. This is because UN Regulation No. 131, applies to the approval of vehicles of categories  $M_2$ ,  $M_3$ ,  $N_2$  and  $M_3$ , whereas UN Regulation No. 152 is only applicable to vehicles of category  $M_1$  and  $N_1$ . This means that vehicles of categories  $M_2$ ,  $M_3$  and  $N_2$  should not be able to recognise type-approvals to UN Regulation No. 152 or viceversa, at least without clearer constraints between the relation between the vehicle approved to UN Regulation No. 152 and the vehicle to be approved to UN Regulation No. 131. Although the Australian representative expert does not believe it was the intent, reciprocal recognition of UN Regulation No. 131 as equivalent to UN Regulation No. 152 should not be allowed given the less stringent requirements of UN Regulation No. 131.

4. The expert from Australia seeks GRVA member's views on the following matters:

<sup>&</sup>lt;sup>1</sup> As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.6, para. 2 https://unece.org/transport/standards/transport/vehicle-regulations-wp29/resolutions

- (a) Can a type-approval to UN Regulation No. 152 be issued or extended to cover vehicles of categories M<sub>2</sub>, M<sub>3</sub> and N<sub>2</sub>?
- (b) Have vehicle categories M<sub>2</sub>, M<sub>3</sub> and N<sub>2</sub> been accepted/approved onto other Contracting Parties' markets in accordance with these provisions? What approach was used?

5. To provide additional clarity to the conditions of the reciprocal recognition, the expert from Australia recommends to amend the scope of UN Regulation No. 131. Given the performance of the AEBS is reliant on the performance of the braking system, it would only make sense to allow reciprocation of UN Regulation No. 152 as equivalent to UN Regulation No. 131 for the identified vehicles where they are of the same vehicle family and covered by the same brake system approval. As the only overlap of braking approvals is to UN Regulation No. 13 – Heavy vehicle braking, the amendment clarifies that recognition of UN Regulation No. 152 approvals for UN Regulation No. 131 should only occur for those  $M_2$ ,  $M_3$  or  $N_2$  that share the same UN Regulation No. 13 approval.

6. The alternative option proposed is to repeal the reciprocal arrangement introduced in the 02 series of amendments by deleting the paragraph under \* if these approval arrangements cannot be justified.

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