

Proposal to amend document ECE/TRANS/WP.29/GRSP/2020/6

Proposal for the 03 series of amendments to UN Regulation No. 100 (Specific requirements for the electric power train)

Submitted by the expert from Japan

The text reproduced below was prepared by the expert from Japan. The proposal aims to modify ECE/TRANS/WP.29/GRSP/2020/6 in order to resolve the pending issue of the definition of REESS as well as to clarify the transitional provisions.

I. Proposal

Paragraphs 1.1. to 1.2., amend to read:

"1.1. Part I: Safety requirements with respect to the electric power train of road vehicles of categories M and N¹, with a maximum design speed exceeding 25 km/h, equipped with **electric power train, excluding vehicles permanently connected to the grid** ~~one or more traction motor(s) operated by electric power and not permanently connected to the grid, as well as their high voltage components and systems which are galvanically connected to the high voltage bus of the electric power train.~~

~~Part I of this regulation does not cover; post-crash safety requirements of road vehicles.~~

- (a) **Post-crash safety requirements of road vehicles.**
- (b) **High voltage components and systems which are not galvanically connected to the high voltage bus of the electric power train.**

1.2. Part II: Safety requirements with respect to the Rechargeable Electrical Energy Storage System (REESS), of road vehicles of categories M and N equipped with **electric power train, excluding vehicles** ~~one or more traction motors operated by electric power and not permanently connected to the grid.~~

Part II of this Regulation does not apply to a battery REESS(s) whose primary use is to supply power for starting the engine and/or lighting and/or other vehicle auxiliaries' systems. [Primary use in this context means that more than 50% of the energy from the battery is used for starting the engine and/or lighting and/or other vehicle auxiliaries' systems over an appropriate driving cycle, e.g. WLTC for M1 and N1.]"

Paragraph 2.9.(former), renumber as paragraph 2.14., and amend to read:

¹ As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.2, para. 2.

Paragraph 2.29.(former), renumber as paragraph 2.37. and amend to read:

"2.37. "Rechargeable Electrical Energy Storage System (REESS)" means the rechargeable energy storage system that provides electric energy for ~~electric~~ **electrical** propulsion.

A battery whose primary use is to supply power for starting the engine and/or lighting and/or other vehicle auxiliaries' systems is not considered as a REESS. ~~Primary use in this context means that more than 50 per cent of the energy from the battery is used for starting the engine and/or lighting and/or other vehicle auxiliaries' systems over an appropriate driving cycle, e.g. WLTC for M₁ and N₁.~~

The REESS may include ~~subsystem(s) together with the necessary ancillary~~ systems for physical support, thermal management, electronic ~~control~~ **control** and ~~casing enclosures.~~

Insert new Paragraphs 12.3. and 12.4., to read:

"12.3. Until 1 September [2025], Contracting Parties applying this Regulation shall accept type approvals to the preceding series of amendments, first issued before 1 September [2023].

12.4. As from 1 September [2025], Contracting Parties applying this Regulation shall not be obliged to accept type approvals issued to the preceding series of amendments to this Regulation."

Renumber (former) Paragraphs 12.3 and 12.4. as Paragraphs 12.5. and 12.6.

II. Justification

1. The scope of the 02 series of UNR100 should be maintained in principle with editorial improvements.
2. The definition of REESS should be aligned with GTR20.
3. Although it was recognized that there has been different interpretation with respect to "primary use" of a battery under current R100-02, for the sake of international harmonization of technical requirements and mutual recognition of the UN approvals, it would be beneficial not to narrow down the scope of the Regulation, while leaving the possibility for Contracting Parties to determine the scope according to their regional demands.
4. The definition of "Electrical circuit" should not be modified from current R100-02 to avoid the discrepancy with the definition of specific voltage condition (paragraph 2.42.) and related requirements where the circuits in question are not high voltage.
5. In order to clarify the limited acceptance of the approvals according to the preceding series of amendments granted before the date (b) (as described in ECE/TRANS/WP.29/1044/Rev.2), the standard provisions V.3. and V.4. are proposed.