Proposal for supplement 2 to the 06 Series of Amendments to UN Regulation No. 95 (Uniform provisions concerning the approval of vehicles regard to the protection of the occupants in the event of a lateral collision) [[1]](#footnote-2)\*

 Submitted by the expert from Germany on behalf of the GRSP TF AVRS

 The text reproduced below was prepared by the expert from Germany on behalf of the TF GRSP AVRS, to enable the application of the regulation to vehicles equipped with an ADS [feature type 2]. The modifications to the existing text of the UN Regulation are marked in “bold“ for new or strikethrough for deleted characters.

1. Proposal

*Title.,* amend to read:

“Protection of the occupants in the event of a lateral collision**, fuel system integrity and protection against electrical shock** in the event of a lateral collision”

*Insert new paragraph 0.,* to read:

**"0. Introduction**

**0.1. This Regulation is amended to enable the type approval of vehicles of categories M1X and N1X. [and N1Y.]**

**0.2. The Regulation was originally drafted for vehicles with driver and manual driving controls. It is the intention of this new amendment to keep the spirit of the regulation and to extend its application to vehicles without driver and without manual driving controls inside the vehicle. In the absence of driver/manual driving controls in the vehicle, provisions related to them shall not be taken into account if not already covered by this amendment.**

**0.3. In case of vehicles with an ADS feature where those vehicles are also capable of being driven manually at speeds exceeding 6 km/h, it is expected that in the manual driving mode the technical requirements can be applied as they would be for a conventional vehicle. In case of a dual mode vehicle, both operating modes have to be considered.**

**~~"0. Introduction to the supplement 2 to 06 series of amendments to UN Regulation N° 95~~**

**~~This Regulation is amended to enable the type approval of vehicles of category M1/X, N1/X and N1/Y.~~**

**~~The Regulation was originally drafted for vehicles with driver and manual driving controls and it is the intention of this new amendment to keep the spirit of the regulation and to extend its application to vehicles without driver and manual driving controls. In the absence of driver/manual driving controls, provisions related to them shall not be taken into account if not already covered by this amendment.~~**

**~~In case of vehicles with an ADS where those vehicles are also equipped with manual driving controls (dual mode vehicles), it is expected that in the manual driving mode the technical requirements can be applied as they would be for a conventional vehicle. In case of a dual mode vehicle, both operating modes have to be considered.”~~**

*Paragraph 1.,* amend to read:

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
| 1. | SCOPEThis Regulation applies to vehicles of category M1 with a maximum permissible mass not exceeding 3,500 kg and to vehicles of category N1 1 |

 |
|  [this regulation does not apply to vehicles of category N1Y] |
|  |

*Paragraph 2.1.,* amend to read:

“2.1. ~~"Approval of a vehicle" means the approval of a vehicle type with regard to the behaviour of the structure of the passenger compartment in a lateral collision;~~ **Reserved**”

*Paragraph 2.11.,* amend to read:

“2.11. "Unladen mass" means the mass of the vehicle in running order without ~~driver, passengers~~ **occupants** or load, but with the fuel tank filled to 90 per cent of its capacity and the usual set of tools and spare wheel on board, where applicable;”

*Insert new paragraphs 2.54 to 2.56.,* to read:

**"2.54. "*Automated Driving System (ADS)*” means the vehicle hardware and software that are collectively capable of performing the entire Dynamic Driving Task (DDT) on a sustained basis.**

**2.55. *"Dynamic Driving Task (DDT)”* means the real-time operational and tactical functions required to operate the vehicle.**

**2.56. “*Driver*” means a human user who performs in real time part or all of the DDT and/or DDT fallback for a particular vehicle. "**

*Paragraphs 5.1.1. to 5.1.1.2.,* amend to read:

“5.1.1. The test will be carried out on the driver’s side unless asymmetric side structures, if any, are so different as to affect the performance in a side impact. In that case either of the alternatives in paragraph 5.1.1.1. or 5.1.1.2. may be used by agreement between the manufacturer and ~~Type Approval Authority~~ **the Technical Service.** **In case of vehicles of category M1X, N1X [and N1Y], the manufacturer shall propose the tested side. For all vehicle categories, the procedure under 5.1.1.1 and 5.1.1.2 shall apply**.

5.1.1.1. The manufacturer ~~will~~ **shall** provide to the ~~authority responsible for approval with~~ **Technical Service** information regarding the ~~compatibility of~~ performances ~~in comparison with~~ **of** ~~the driver’s~~ **~~respectively~~ the proposed** side ~~when the test is being carried out on that side~~ **in comparison with the opposite side**.

5.1.1.2. The ~~Type Approval Authority~~ **Technical Service**, if concerned as to the construction of the vehicle, will decide to have the test performed on the side, ~~opposite the driver, this being~~ considered **to be** the least favourable.”

*Paragraph 5.3.1.1.,* amend to read:

“5.3.1.1. In the case of automatically activated door locking systems which are installed optionally and/or which can be de-activated ~~by the driver~~, this requirement shall be verified by using one of the following two test procedures, at the choice of the manufacturer”

*Paragraph 5.3.2.2.,* amend to read:

“5.3.2.2. In the case of automatically activated door locking systems which are installed optionally and/or which can be de-activated ~~by the driver~~, this requirement shall be verified by using one of the following two test procedures, at the choice of the manufacturer”

*Annex 4 Paragraph 2.4.,* amend to read:

“2.4. The longitudinal vertical median plane of the mobile deformable barrier shall be coincident within ±25 mm with a transverse vertical plane passing through the R point of the front seat adjacent to the struck side of the tested vehicle. The horizontal median plane limited by the external lateral vertical planes of the front face shall be at the moment of impact within two planes determined before the test and situated 25 mm above and below the previously defined plane. [**In case of vehicles of category N1Y, the position of the barrier shall be proposed by the manufacturer and confirmed by the Technical Service.]**

*Annex 4 Paragraph 5.2.2.,* amend to read:

“5.2.2. In the case of vehicles equipped with an automatically activated door locking system, which is installed optionally and/or which can be de-activated ~~by the driver~~, one of the following two procedures shall be used at the choice of the manufacturer:”

II. Justification

1. Regulation is amended to enable the type approval of vehicles of category M1/X, N1/X and N1/Y.

The Regulation was originally drafted for vehicles with driver and manual driving controls and it is the intention of this new amendment to keep the spirit of the regulation and to extend its application to vehicles without driver and manual driving controls. In the absence of driver/manual driving controls, provisions related to them shall not be taken into account if not already covered by this amendment.

In case of vehicles with an ADS where those vehicles are also equipped with manual driving controls (dual mode vehicles), it is expected that in the manual driving mode the technical requirements can be applied as they would be for a conventional vehicle. In case of a dual mode vehicle, both operating modes have to be considered

1. \* In accordance with the programme of work of the Inland Transport Committee for 2023 as outlined in proposed programme budget for 2023 (A/77/6 (Sect. 20), table 20.6), 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. [↑](#footnote-ref-2)