

**Proposal for [supplement] 6 to the 03 Series of Amendments
to UN Regulation No. 29 (protection of occupants of the cab of
a commercial vehicle) ***

**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.

* 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.

I. Proposal

Insert a new paragraph 0.1. to 0.4., to read:

- 0.1. **“This Regulation is amended to enable the type approval of vehicles of category NX.**
- 0.2. **The Regulation was originally drafted for vehicles with driver and manual driving controls in a cab mounted at the front of the vehicle. 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 inside the cab. In the absence of driver/manual driving controls inside the cab, provisions related to them shall not be taken into account if not already covered by this amendment.**
- 0.3. **Cabs for vehicles of category NX mounted in other positions than the vehicle front shall not be taken into account for the frontal collision simulation (test A).**
- 0.4. **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.”**

Paragraph 1., amend to read:

- “1. This Regulation applies to:

Vehicles of category N with regard to the protection of the occupants of the cab.

It does not apply to vehicles of category NY.”

Insert new paragraphs 2.15. to 2.17., amend to read:

- "2.15. "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.**
- 2.16. "Dynamic Driving Task (DDT) " means the real-time operational and tactical functions required to operate the vehicle.**
- 2.17. “Driver” means a human user who performs in real time part or all of the DDT and/or DDT fallback for a particular vehicle.”**

Paragraph 5.1.4., amend to read:

- “5.1.4. Test A (frontal impact) shall only be conducted on Cab-over-Engine vehicles and for vehicles of category NX having the cab in the front of the vehicle.”**

Annex 1, Part 1: paragraph 2.7, amend to read:

- “2.7. ~~Driving~~ Cab (cab-over-engine or bonnet or in case of vehicles of category NX the position of the cab)²⁾.”**

-
- 2) Cab-over-engine means a configuration in which more than half of the engine length is rearward of the foremost point of the windshield base and the steering wheel hub in the forward quarter of the vehicle length.

Annex 3: paragraph 3., amend to read:

- “3. **If fitted,** ~~the~~ cab shall be equipped with the steering mechanism, steering wheel, instrument-panel and the driver and passenger seats. The steering wheel and the seating position shall be adjusted to their positions for normal use as prescribed by the manufacturer.”

Annex 3: insert a new paragraph 5.3.4., to read:

- “5.3.4. **If fitted,** ~~the~~ cab shall be equipped with the steering mechanism, steering wheel, instrument-panel and the driver and passenger seats. The steering wheel and the seating position shall be adjusted to their positions for normal use as prescribed by the manufacturer.”

II. Justification

1. This Regulation is amended to enable the type approval of vehicles of category NX.
2. The Regulation was originally drafted for vehicles with driver and manual driving controls in a cab mounted at the front of the vehicle. 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 inside the cab. In the absence of driver/manual driving controls inside the cab, provisions related to them shall not be taken into account if not already covered by this amendment.
3. Cabs for vehicles of category NX mounted in other positions than the vehicle front shall not be taken into account for the frontal collision simulation (test A).
4. 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.