

## **Proposal for amendments to the 01 series of amendments to UN Regulation No. 138 (approval of Quiet Road Transport Vehicles with regard to their reduced audibility)**

The text reproduced below was prepared by the expert from the France to amend UN Regulation No. 138-01 Supplement 02, in order to clarify some testing requirement. The modifications are marked in bold for new or strikethrough for deleted characters.

### **I. Proposal**

*Paragraph 3.3.2.1., amend to read:*

“3.3.2.1. Constant speed tests in forward motion

For a vehicle tested in an outdoor facility, the path of the centreline of the vehicle shall follow line CC' as closely as possible with constant speed  $v_{\text{test}}$  throughout the entire test. The front plane of the vehicle shall pass from the line AA' at the start of the test and the rear plane of the vehicle shall pass from the line BB' at the end of the test, as shown in Figure 1a of the Appendix to this annex. Any trailer, which is not readily separable from the towing vehicle, shall be ignored when considering the crossing of the line BB'.

A vehicle tested in an indoor facility, shall be located with the front plane of the vehicle on the PP' line as shown in Figure 2a of the Appendix to this annex. The vehicle shall maintain a constant test speed,  $v_{\text{test}}$  for at least 5 seconds.

For constant speed test condition of 10 km/h, the test speed  $v_{\text{test}}$  shall be **at a set point of 10 km/h and shall not deviate by more than  $\pm 2$  km/h.**

For constant speed test condition of 20 km/h, the test speed  $v_{\text{test}}$  shall be **at a set point of 20 km/h and shall not deviate by more than  $\pm 1$  km/h.**

For automatic transmission vehicles, the gear selector shall be placed as specified by the manufacturer for normal driving.

For manual transmission vehicles, the gear selector shall be placed in the highest gear which can achieve the target vehicle speed with constant engine speed.”

*Paragraph 3.3.2.2., amend to read:*

“3.3.2.2. Constant speed tests simulated by an external signal to the AVAS with the vehicle in standstill condition

A vehicle tested in an indoor or outdoor facility, shall be located with the front plane of the vehicle on the PP' line as shown in Figure 2b of the Appendix to this annex. The vehicle shall maintain a constant simulated test speed,  $v_{\text{test}}$  for at least 5 seconds.

For constant speed test condition of 10 km/h, the simulated test speed  $v_{\text{test}}$  shall be **at a set point of 10 km/h and shall not deviate by more than  $\pm 0,5$  km/h.**

For constant speed test condition of 20 km/h, the simulated test speed  $v_{\text{test}}$  shall be **at a set point of 20 km/h and shall not deviate by more than  $\pm 0,5$  km/h**”

*Paragraph 3.3.3.1., amend to read:*

“3.3.3.1. Reversing test in motion

For a vehicle tested in an outdoor facility, the path of the centreline of the vehicle shall follow line CC' as closely as possible with constant speed  $v_{\text{test}}$  throughout the entire test. The rear plane of the vehicle shall pass from the line AA' at the start of the test and the front plane of the vehicle shall pass from the line BB' at the end of the test, as shown on Figure 1b of the Appendix to this annex. Any trailer, which is not readily separable from the towing vehicle, shall be ignored when considering the crossing of the line BB'.

A vehicle tested in an indoor facility, shall be located with the rear plane of the vehicle on the PP' line as shown in Figure 2b of the Appendix to this annex. The vehicle shall maintain a constant test speed,  $v_{\text{test}}$  for at least 5 seconds.

For constant speed test condition of 6 km/h, the test speed  $v_{\text{test}}$  shall be **at a set point of 6 km/h and shall not deviate by more than  $\pm 2$  km/h**.

For automatic transmission vehicles, the gear selector shall be placed as specified by the manufacturer for normal reverse driving.

For manual transmission vehicles, the gear selector shall be placed in the highest reverse gear which can achieve the target vehicle speed with constant engine speed.”

*Paragraph 3.3.3.2., amend to read:*

“3.3.3.2. Reversing test simulated by an external signal to the AVAS with the vehicle in standstill condition

A vehicle tested in an indoor or outdoor facility, shall be located with the rear plane of the vehicle on the PP' line as shown in Figure 2b of the Appendix to this annex. The vehicle shall maintain a constant simulated test speed,  $v_{\text{test}}$  for at least 5 seconds.

For constant test condition of 6 km/h, the simulated test speed  $v_{\text{test}}$  shall be **at a set point of 6 km/h and shall not deviate by more than  $\pm 0,5$  km/h**.”

## II. Justification

The purpose is to ensure that the target test speed is either 10 km/h, or 20 km/h, in forward motion, or 6 km/h in reverse motion and that the tolerances given by the regulation are linked to the testing and not used for more favorable testing speed.

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