

Proposal for Supplement 3 to the 01 series of amendments to Regulation No. 138

The proposed amendments are marked in bold or strikethrough for new characters.

I. Proposal

Paragraph 6.2., amend to read:

“6.2. Acoustics characteristics

The sound emitted by the vehicle type submitted for approval shall be measured by the methods described in Annex 3 to this Regulation.

The specifications of this Regulation are applicable for the speed range of greater than 0 km/h up to and inclusive 20 km/h. Operation of an AVAS is **not** permitted at vehicle speeds outside the specification range. AVAS may be operational independent of the operation of an internal combustion engine inside ~~or outside~~ of the specified operation range.

If the vehicle that is not equipped with an AVAS fulfils the overall levels as specified in Table 2 below with a margin of +3 dB(A), the specification for one-third octave bands and the frequency shift do not apply.”

II. Justification

In Switzerland, every seventh person in the daytime and every eighth person at night is affected by harmful or irritating traffic noise at their place of residence. The resulting noise pollution can have a negative effect on the health of the general public so economic consequences for affected residential settlements and areas may occur. Road traffic is the most significant source of noise, causing external costs of over 2 billion Swiss Francs annually. A large sum is therefore invested towards noise protection in Switzerland, mainly in measures to combat road noise. The vehicle fleet should contribute to noise reduction! Electric and hybrid vehicles offer a great potential for noise reduction in cities and agglomerations.

The installation of an AVAS is needed for low speeds of electric and hybrid vehicles. However, with the entering into force of Supplement 1 to the 01 Series of amendments, AVAS¹ are allowed to generate more noise on the road than necessary. Actually, the maximum sound level of an “AVAS” above 20 km/h is covered by UN R51.03. Such sound level is resulting in superfluous noise pollution and undermines noise abatement. Therefore, Switzerland proposes the above amendment to UN-R 138 recalling the central idea of AVAS: “As loud as necessary but as quiet as possible”.

¹ I.e. the equipment used for AVAS sound in low speeds.