

Memorandum

To
ir. B.J.F. Kortbeek

From
P.J.G. van Beek

Subject
UNECE R51.02

Monitoring Systems

Stieltjesweg 1
P.O. Box 155
2600 AD Delft
The Netherlands

www.tno.nl

T +31 15 269 20 00
F +31 15 269 21 11
info-lenT@tno.nl

Some comments on the OICA R51 ASEP proposal

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Our reference

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Direct dialling

+31 15 269 21 51

Within the ECE GRB Informal Group on Additional Sound Emission Provision (ASEP), which is a subgroup of the GRB Expert Group, the OICA proposed a new ASEP for ECE Regulation R51. This ASEP is an additional test to the new developed type approval test R51.03, which covers driving circumstances of higher acceleration compared to the type approval test. The strength of a combination of both R51.03 and the ASEP should be that both normal driving under main street conditions and accelerating vehicles in an urban situation are incorporated in a test method, with accompanying limit values. At the request of the Dutch Ministry of Spatial Planning and Housing TNO was asked to review the OICA proposal. Therefore TNO has studied the documents and accompanying database with test results and the implemented proposal.

After studying the proposal TNO concluded that the present proposal will result in a very undesirable situation: compared to the R51.02 regulation that is currently in use and also is based on an acceleration test, the OICA proposal will result in an extra driveline noise allowance for most vehicles, which can reach up to 10 dB with an average of about 3 dB. From both a legislative and environmental point of view this is not recommendable. The main goal of the development of a new regulation was to benefit the environment by making road vehicles more silent, which will not be the case if the OICA proposal will be accepted as it stands now.

In addition, technical remarks are the following:

- According to the OICA, vehicles with a variable gear ratio cannot be incorporated in the test. This is not recommendable in TNO's view.
- The proposal uses a certain slope for the noise as function of rpm, starting at an anchor point. This anchor point, following from the current test values in the new R51.03, can be lowered and the slope should also be reconsidered. At least a better distinction between tyre vs. driveline noise should be made.

As a result, TNO highly recommends reconsidering the current OICA proposal, before taking a decision on the final advice of the ASEP Informal Group.