

QRTV for UN Regulation

GRB 62

QRTV concerns by GRB

- QRTV basic aspect : 10 meetings from February 2010 to February 2012
 - ECE/TRANS/WP.29/GRB/2012/6 Recommendations for a Global Technical Regulation Regarding Audible Vehicle Alerting Systems for Quiet Road Transport Vehicles
 - Amendment of RE3 : Guidelines on measures ensuring the audibility of hybrid and electric
- QRTV for GTR: 9 meetings from July 2012 to April 2014
 - Works stopped since April 2014 due to lack of available information from US side (publication of regulation probably on December 2015).

QRTV for UN Meetings

Pre-meetings (under QRTV for GTR TF umbrella):

- 2014 September 4th and 5th (Geneva)
- 2014 October 28th (Brussels)

Meetings for UN Regulation under 58 Agreement :

- 2014 December 10-11th (Tokyo)
 - Informal document Draft UN Regulation on QRTV to GRB 61st session
- 2015 January 26th and 27th (Geneva)
- 2015 February 26th and 27th (Brussels)
- 2015 May 11th to 13th (Seoul)
- 2015 June 2d (Brussels)
 - Working document for UN Regulation on QRTV to GRB 62^d session

A new UN Regulation

- **Title** : Uniform provisions concerning the approval of Quiet Road Transport Vehicles with regard to their reduced audibility
- **Scope** : This Regulation applies to electrified vehicles of categories M and N which can travel in the normal mode, in reverse or at least one forward drive gear, without an internal combustion engine operating in respect to their audibility.
- **Modular building** : At this stage, only acoustic measures shall be developed in order to overcome the concern of reduced audible signals from electrified vehicles. After finalization, the appropriate GR shall be assigned with the enhancement of the Regulation in order to develop alternative, non-acoustic measures, taking into account active safety systems such as, but not limited to, pedestrian detection systems.

Basic principles

This Regulation proposes the following well-accepted specifications:

- Test of Minimum sound at 10 km/h, 20 km/h and reversing
This Regulation specifies minimum levels for overall sound and for at least two 1/3 octave bands
- Frequency shift from 5 to 20 km/h

This regulation provides vehicle performance specifications with or without an AVAS for EVs and HEVs (without an AVAS if natural sound of EV/HEV is loud enough)

In order to achieve a compromise for prompt publication of this Regulation, potential additional specifications were postponed to permit any additional research work

Next step(s) for QRTV

Because state of the art does not permit today to prove that those following points will be beneficial without undesired adverse effects, the IWG proposes to GRB for the working document :

- to postpone L categories from the scope
- to have stationary sound as an option
- to have pause function as an option

The IWG proposes to GRB to re-consider these points after adoption in September 2015 for the revision of this future Regulation.

Additional studies are needed.