

Transmitted by Secretary of New TF QRTV

Informal Document **GRBP-76-16**
76th GRBP, September 5-7, 2022,
agenda item 03

Status Report to 76th Session of GRBP (September 2022)

New Task Force on Quiet Road Transportation Vehicle (UN-R138-02)

New TF Quiet Road Transportation Vehicle

Targets

- Improve boundary condition for AVAS and interaction with R51
- Improve stability of test results
- Minimize uncertainty

Roles

- Chair: intermediate France
- Secretariat: OICA

IWG MU homepage

[New TF-QRTV \(UN-R138-02\) - Transport - Vehicle Regulations - UNECE Wiki](#)

Participants

- CPs.: Canada, France, Germany, Switzerland, Spain, United Kingdom, Japan (check attendance in person or virtual), China, European Commission, Norway
- NGO's: OICA, ETRTO, ISO, IMMA,

Current status

The New TF QRTV clustered topics for the 2 step approach into short and mid term priority

Short term :

- interaction with UN regulation R51
- Clarification on different proposals
- Reduction of measurement uncertainty
- Stringency of AVAS / test criteria outside of AVAS requirement range

ISO work for ISO16254

ISO made research to get more stable results for AVAS measurements.

Main results found until now:

- Change to 5 microphone arrays instead of a single microphone
- Change Signal processing “max hold” in approach area (10m) in each 1/3rd octave band instead of report at „max Sound Pressure Level“
- Change from „frequency shift“ and introduction of „Tonal Loudness“
- The ISO group agrees to the microphone array and signal processing. Tonal loudness is agreed in principle, but as this method is new, experts are continuing work to finalize details and verify performance
- [TF-QRTV-02-04](#)

Guideline

Guideline

- TF-QRTV-01-03 Rev.1 **DRAFT Guidelines for a new TF on the Revision of UN R138.01**
- **A. Background**
- Technical items under QRTV (Quiet Road Transport Vehicles) are covered by the still existing GTR QRTV working group under the chairmanship of the USA with a mandate extended to December 2023.
- At the 74th and the 75th Session of the GRBP, several documents have been considered:
- From France to introduce a proposal that aimed to clarify the interpretation of the requirements concerning the variation of the sound emitted proportionally with the vehicle speed (ECE/TRANS/WP.29/GRBP/2021/14) and the testing requirements (GRBP-74-05).
- From Switzerland to prohibit operation of the acoustic vehicle alerting system (AVAS) outside the specification speed range from 0 km/h up to and inclusive 20 km/h (GRBP-74-02). The experts from Germany, ISO and OICA (GRBP-74-28) commented on this proposal.
- From ISO on technical measurement development for standard ISO 16254 (GRBP-75-03) and updated standard ISO 10844:2021 (GRBP-75-02-Rev.1/Add.1) to be included into UN Regulations Nos. 51, 117 and 138 (GRBP-75-02-Rev.1).
- From OICA on Draft of Terms of Reference (GRBP-75-42) for a potential new group working on UN-R138 and commented by China (GRBP-75-44).
- At the 75th Session of the GRBP, in view of a range of draft amendments to UN Regulation No. 138, GRBP agreed to start this work within a dedicated task force on quiet road transport vehicles (TF QRTV) which could later be transformed into an informal working group.

- **B. Objectives**
- Principle tasks of the new TF-QRTV (UN-R138-02) regarding the UN Regulation No.138 to be considered:
 - Relationship between different regulations/standards at international levels
 - Safety effectiveness
 - Review studies, if available
- Interaction with other UN Regulations
- No.51 (Noise Emissions; RD-ASEP), No.28 (Audible warning device), No.[16x] (Reverse Warning Sound), ...
- Review/clarification of technical specifications
 - Review different proposals done at the 74th and 75th Sessions of GRBP
 - Others
- Uncertainties
 - Work of ISO
 - Review test procedures
 - Interchangeability of the various options on test procedures (indoor versus outdoor, ...)
 - Apply principle of IWG MU
- Structure of UN Regulation No.138
 - Specifications for component approval (as in UN Regulation No.28)
 - After-market management
- Stringency of AVAS
 - Review minimum and maximum sound levels on all driving situations
 - Operation range of AVAS
- Organisation of the transitional period for international purposes
- Organisation of the works of this TF-QRTV (UN-R138-02) to be defined in a 2-steps approach to solve the different issues according to their priorities and/or their 'simplicity'.
- TF-QRTV (UN-R138-02) shall work in the framework of the 1958 Agreement and shall report to GRBP.

- **C. Rules of Procedure**

- The TF-QRTV (UN-R138-02) is open to all participants of WP.29 and its subsidiary GRs. A need to limit the number of participants from any organization is not expected, although this will be kept under review.
- The working language shall be English
- The TF-QRTV (UN-R138-02) shall be chaired by xxxx.
- The Secretary is taken by the representative of OICA.
- The progress of the TF-QRTV (UN-R138-02) will be reported to GRBP as an informal document by the chair.
- All documents and/or proposals must be submitted to the chair and the secretary of TF in a suitable electronic format at least one week before a scheduled meeting.
- An agenda and the latest draft document will be circulated to all members of TF in advance of all scheduled meetings.
- The process will pursue consensus. When consensus cannot be reached, the chair of the TF-QRTV (UN-R138-02) shall present the different points of view to GRBP for resolution.
- All TF-QRTV (UN-R138-02) documentation will be made available on the dedicated ECE website.

- **D. Timeline**

- 1st Step:

- The aim of TF-QRTV (UN-R138-02) is to present an informal document for consideration during the 78th GRBP in Sept. 2023.
- The final objective of TF-QRTV (UN-R138-02) is to present a working document for consideration during 79th GRBP in Jan./Feb. 2024.

- 2nd Step:

- The aim of TF-QRTV (UN-R138-02) is to present an informal document for consideration during the 80th GRBP in Sept. 2024.
- The final objective of TF-QRTV (UN-R138-02) is to present a working document for consideration during 81th GRBP in Jan./Feb. 2025.