

(GERMANY) GENERAL IDEAS ABOUT THE WORK OF THE TASK FORCE SOUND LIMITS (PHASE 3)

**SOUND LIMITS
MANIPULATION
GREYZONES
DRIVING BEHAVIOUR
ASEP
PTI, ROADSIDE CHECK**

MAIN MESSAGES FROM THE PRESENTATION(S)

- In the current situation annoyance due to vehicle noise mainly has three different causes: manipulation, exploitation of grey zones within the existing regulations and driving behaviour.
- Limit value reductions are only effective for a very small group of vehicles.
- Limit value reductions have no effect on manipulated vehicles, even worse low limits increase the tendency to manipulate vehicles.
- Additional measures are recommended to have effects on manipulations and grey zones:
 - Introduction of RD-ASEP (Real Driving Additional Sound Emission Provisions)
 - support PTI (Periodical Technical Inspection) and roadside checks by an European Union-wide database on type-approval data (vehicles and components)
 - extending Market Surveillance (MkS) activities (required min. number of physical tests besides exhaust emission and MkS inside UNECE)
- The same approach (effect of different vehicle classes, engine types, perception areas and tyre types) should be worked out for the different vehicle classes to identify the best solutions for the specific problems.

SUMMARY

In the current situation with regards to introduction of phase 3 vehicles are often perceived as too loud due to:

1. manipulation(s) by the owner of the vehicle,
2. the exploitation of grey areas within existing regulations (“Flexibilities”),
3. and the driving behaviour of the driver.

On the other hand, non-manipulated standard vehicles without “flexibilities in the silencer area” are not perceived by the majority of the population as annoyingly loud.

Since the causes for annoyance are different in different vehicle classes/drivetrain concepts the relevance level/effect a measure (e.g. lower limit values) are also different in this categories.

GENERAL CONCLUSION:

- (1) Limit value reductions alone only lead to marginal reductions in real driving noise emissions in the standard vehicle fleet due to the large proportion of vehicles with the possibility of complete flexibility in noise emissions (flap silencers, sound generators and hybrid drive boost).
- (2) The reductions in limit values have no influence on manipulated vehicles or a negative influence, if the tendency to manipulate increases due to low limit values.

Useful alternatives or additions to Phase 3 limit reduction of M1 vehicles:

1. Introduction of RD-ASEP into UN-R 51 and Regulation (EU) No. 540/2014.
2. Adaptation of the interpretation of paragraph 6.2.3 (GRB-68-03) to RD-ASEP.

3. Creation of an EU-wide database on type-approval data (EU/UNECE) including sound emissions (vehicles & NORESS (Non Original Replacement Exhaust Sound System)) to support PTI and roadside checks.

4. Extending market surveillance activities with minimum measurement requirements of motor vehicles & NORESS with regard to their sound emissions.

5. Reduction of Sound emission limits in a moderate way, provided that the above four points should find support from the EU Member States and the UNECE Contracting Parties.

From the point of view of Germany, the work of the TF Vehicle Sound should be approached under the above five points

The Presentation only handles with M1 vehicles and the problems in Germany. Detail views are needed for all vehicles as defined in the UN Regulation No.51 with their engines, areas & tires etc. For each of these vehicles, engine, areas etc. the influence of limit value has to be clear. If there are better solutions to solve specific problems, these have to be worked out.

ADDITIONAL POINTS FROM DISCUSSIONS IN THE UN TF-VS

- It should be possible to introduce RD-ASEP in (EU)540/2014 through a co-decision process.
- 2 areas for the work field of the group = general traffic noise with L_{EQ} value + individual vehicle which can be really noisy due to 'flexibility'.
Both areas have to be worked and the relation between these both areas has to be made clear. What to prioritize?
- Opportunity to be taken to transpose in (EU)540/2014 the progress done in UN regulations (close grey zones).
- In the future more and more Electric Vehicles. That will change the current view. Everything which was possible are now in vehicles as less aggressive flap systems.

REFERENCES

- [TFVS-01-05 Rev.1](#) (GERMANY): General ideas about the work of the Task Force Sound Limits (Phase 3)
- [GRBP-68-03](#) (IWG-ASEP): Interpretation of the last sentence in the paragraph 6.2.3. of the UN Regulation 51, 03 Series of amendments