

Informal document GRB-57-28
(57th GRB, 5-7 February 2013,
agenda item 3(b))

Reducing Noise Emissions from Motor Vehicles Update on the new EU Commission legislative proposal

GRB Working Party on Noise

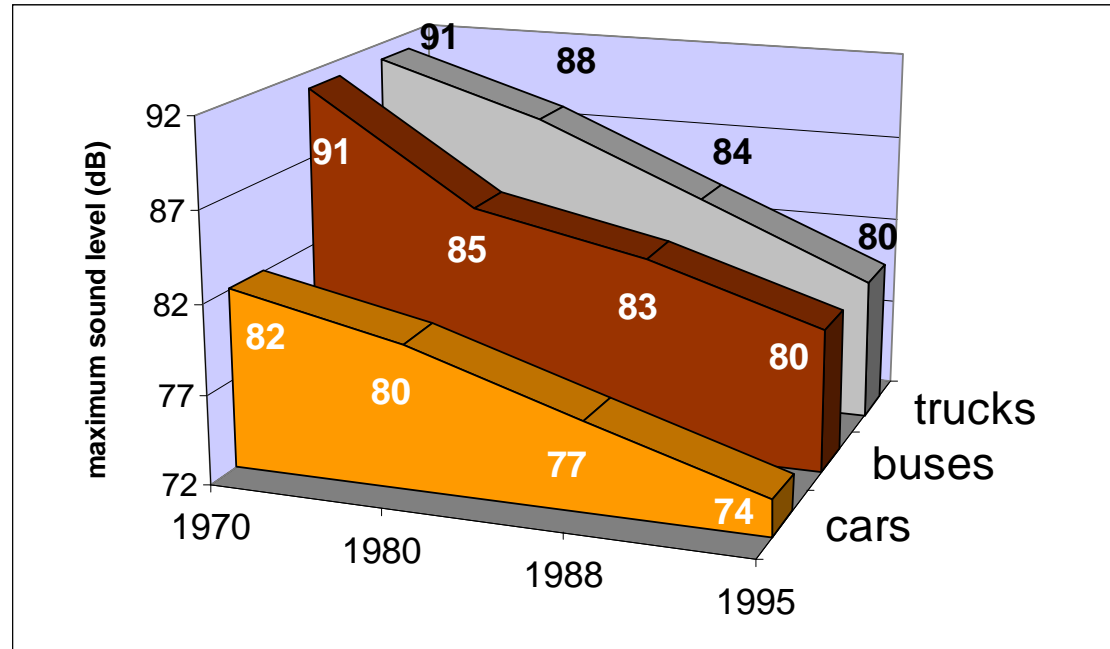
57th session, 05-07 February 2013



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Sustainable Mobility and Automotive Industry

Background

- Noise emissions presently addressed by EU Directive 70/157/EEC and UNECE Regulation No 51
- Limits reduced several times (lastly in 1995)
- Not expected effects (real driving noise emission)
- WHO confirmed harmful effects of noise
- Commission Communication clean and efficient vehicles 28.04.2010
- New test method adopted by GRB



Main elements of the proposal

- New test method based on the UNECE work: More representative of “real” driving conditions
- New limits in 2 stages based on monitoring and VENOLIVA study by TNO
- Off-cycle requirements (ASEP)
- Framework for electric/hybrid vehicles
- In line with CARS 21 recommendations



STATE OF PLAY IN EU PARLIAMENT (COM/2011/0856 final - 2011/0409 (COD))

- The European Parliament's Committee on Environment, Public Health and Food Safety (ENVI) voted on 19 December 2012 60 amendments to the Commission proposal.
- The outcome is that limits and timeline proposed by ENVI are very close to the COM proposal (except more industry friendly for sport cars).



EP-ENVI Committee Proposals

- **AVAS**: more precise requirements (continuous sound similar to combustion engine) on warning devices for electric vehicle, installation is kept optional at this stage.
- **Amendments to the test procedure are**: the testing acceleration (2m/s^2 instead of 3m/s^2 and for ASEP 4m/s^2 instead of 4m/s^2) and the new test track (ISO 10844:2011). Rounding to the next integer, as well as a COP tolerance of 1 dB have also been adopted.
- **Labelling**: ENVI proposed to introduce a labelling (display of the noise value at the dealer at this stage).

Assessment -EP

Given the tight result for the vote on noise limits (difference of 1 vote) and on the report from the rapporteur (difference of 3 votes), the final position of the Parliament may change (more industry friendly for all categories) during the plenary session. The vote in Plenary is scheduled on 5 February 2013.



STATE OF PLAY IN EU COUNCIL (COM/2011/0856 final - 2011/0409 (COD))

- The Council has not yet reached a position on noise limits (Annex III). However, it has progressed on vehicle classification. The classification is now very close to the EP classification. An additional category was proposed by the Council(UK): hyper sport cars (above >200 kw/ton +R point <450 mmm+<3 seats+driver)
- Outstanding issues: type definition (difference between cars and commercial vehicles - Could be reviewed by GRB?), acceleration (2 or 3 m/s²/ 4 or 5 m/s² for ASEP), how to deal with hybrid cars not emitting any noise in a stationary position (i.e. how to control them in road side checks/periodical inspection).

STATE OF PLAY IN EU COUNCIL (COM/2011/0856 final - 2011/0409 (COD))

The Council working Group on motor vehicles (Competiveness Council) has met 5 times. It has substantially amended the Commission proposal:

- The text has been clarified on a number of issues. It has been supplemented by administrative amendments to the framework Directive 2007/46/EC.
- The new test track (ISO 10844:2011) has been introduced (with a transitional period of 5 years after publication).
- The amendments to the test procedure are very close to the EP amendments (acceleration, COP tolerance)

Proposal (1): New test method

- Replace the existing EU test method by the new UNECE/GRB test method more representative of urban driving conditions
- Include the additional sound emission provisions (ASEP) developed by GRB:
 - Noise emission outside test conditions shall not be significantly higher than expected
 - Minimises cycle beating possibilities
- Monitoring carried out according to the old and the new method: UN Regulation No 51 (July 2007 – July 2009), Directive 70/157/EEC (July 2008 – July 2010)



Proposal (2): Background for new noise limits

- Results of the monitoring
- TNO study (VENOLIVA) to assess new test protocol and provide possible new limit values
- Impact assesment (cost/benefit analysis)
- Consultation in CARS 21 group on the main principles
- Feedback received on TNO study
- Impact assesment

Proposal (2) : Impact assessment

- *Option 1*: No policy change: old test method and the existing limit values
- *Option 2*: New test method and the existing limit values
- *Option 3*: New test method and limit values equivalent to old ones
- *Option 4*: New test method and reduced limit values introduced in one stage
- *Option 5*: New test method and reduced limit values introduced in two stages

Preferred option (good cost/benefit ratio and sufficient lead-time for Industry)



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Proposal (2): Lowering noise limit values in 2 stages

- 1st stage: 2 years after publication (new types):
 - Cars, buses and light trucks: - 2 dB(A)
 - Heavy trucks: - 1 dB(A)
- 2nd stage: 5 years after publication for new types and 7 years after publication for all types
 - Cars, buses and light trucks: - 2 dB(A);
 - Heavy trucks: - 2 dB(A)
- In line with CARS 21 recommendations: New limits in 2 stages + lead-time

Proposal (3): Specific cases

- Special allowance kept for some vehicles (sport cars, off road) and removed for others (direct injection diesel)
- Avoid double legislation for tyres (General safety Regulation 661/2009 and this proposal)
- Quiet vehicles (electric and hybrid vehicles):
 - Minimum legal framework for sound generating devices based on the GRB work
 - Optional installation of such devices

Proposal: Steps followed

- 2003-2007: New test method developed in UNECE Noise Working Party
- 2007/2010 : Monitoring period with old and new test methods
- 28/04/2010 : Commission strategy on clean and energy efficient vehicles includes measures to reduce noise
- 8/2010: Draft report “ VENOLIVA ” study by TNO
- 8/2010 – 2/2011: Consideration of comments on VENOLIA study
- 4/02/2011: Impact assessment board
- 18/03/2011: Presentation of main lines of proposal in CARS 21 (WG 4)
- 30/03/2011: Final report “VENOLIVA” study by TNO
- 07 to 08/2011: Finalisation of Impact assessment study and its summary
- 07 to 08/2011: Inter-service consultation/integration of comments
- 09 to 11/2011: Translation time/finalisation of proposal
- 23/11/2011: Presentation of main lines of proposal in EP workshop
- 2/12/2011 : Cars 21 recommendation on noise endorsed
- 9/12/2011: Adoption of the proposal by the Commission and sending to legislator (Council and Parliament)

The EP Plenary Session 06/02/2013

Overview of amendment status:

- Amendment N° 49 approved regarding legal tread depth.
- Amendment N° 61 approved (regarding the limits)
- Amendment N° 51 rejected
- Amendment N° 67 rejected
- Amendment N° 68 rejected



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The EP Plenary Session 06/02/2013

- According to EU Member States, at least half of the population in urban areas is exposed to noise levels above 55 dB as a result of ambient road traffic. The purpose of this Regulation proposal is to ensure a high level of health and environmental protection as well as a reasonable safeguard of the internal market for motor vehicles.



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The EP Plenary Session 06/02/2013

Overview of amendment status:

- This draft law, which will not be applied before 2019, at the earliest, was approved by the Parliament with 401 votes in favour, 228 against and 20 abstentions. The limits for standard cars will drop from 74 decibels at present to 68 decibels. The Rapporteur of the project, stated that the EU also targets roads quality, aerodynamic and wheels. The EU thus wishes to limit health risks, related to noise.



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The EP Plenary Session 06/02/2013

The Parliament agreed that in the type approval tests for noise:

- To further tighten noise limits for cars and adding sound to hybrid and electric vehicles to alert pedestrians. In an effort to protect public health, MEPs voted under a draft law and recommended introducing labels to inform consumers about new cars' noise levels.
- Vehicles should continue to be tested with tires that have legal tread depth.
- For commercial vehicles: Tires representative for the vehicle were approved
- The European Parliament granted vehicle manufacturers higher noise limits (for some vehicle categories) and longer implementation period than the original, stricter proposal from the European Commission.
- Has rejected amendment N° 67, which was a proposal to explore the potential of tires for further vehicle noise reduction of 2 dBA by 2023.



The EP Plenary Session 06/02/2013

- The European Parliament has voted to revise current limits on vehicle noise. But the limits agreed are less ambitious than those adopted by its environment committee. The limits agreed in plenary are generally one to three decibels higher than the committee's figures.
- A 74-decibel limit for sports cars, which did not have their own category before now, was also introduced to soften the impact of the regulation on manufacturers.
- The MEPs did not alter the committee's 69db(A) limit for the lightest minibuses and vans, nor the 68db(A) limit for typical cars, which is lower than the existing one.

The EP Plenary Session 06/02/2013

- The parliament carried the contentious revisions, put forward by Czech conservative rapporteur Miroslav Ouzký, by 307 votes to 292, with 25 abstentions.
- Mr Ouzký: text forms “a real compromise” between contrasting proposals from carmakers on the one hand and NGOs and green MEPs on the other. Green MEPs and NGOs criticized the vote, claiming that it will not deliver a meaningful cut in vehicle noise. But meeting the proposed limits “will be extremely difficult, if not impossible,” said ACEA.
- The greatest change to the commission’s original proposals is how vehicles are categorised, with no significant deviation from the limits put forward.

The EP Plenary Session 06/02/2013

- The MEPs also agreed vehicle noise should be labeled, as CO2 emissions are now. Another important departure from the commission's text is that quiet vehicles, such as electric and hybrid cars will have to have a noise-making system to alert pedestrians.
- The parliament wants compliance with the regulation to be a type approval requirement six years after the regulation enters force. All new vehicles entering service would have to meet them two years later.
- Member states are still debating the proposals in the Council of Ministers.

The EP Plenary Session 06/02/2013

- "We tried to correct and improve the Commission's proposal, considering the latest technical innovations and the overall feasibility of the requirements that the sector will have to meet in production cycles", pointed out Salvatore Tatarella MEP.
- The EPP Group introduced substantive technical adjustments to the Report, in particular the methods for the measurement of noise levels, the categorisation of European vehicles' classification, as well as provisions governing the limit values. The EPP Group also supported the inclusion of a specific category for small volume car manufacturers with well defined noise limit figures.

The EP Plenary Session 06/02/2013

- The European Parliament called for efforts on optimizing road surfaces to reduce noise and introducing noise labels for the Roads and vehicles, similarly to the tyre label (the European Commission to make a study on feasibility within the next 2 years).
- The Parliament improved the Commission's proposal with the possibility for the rounding of the noise values, and using lower acceleration in the text (2 m/s^2) - this is in accordance with the UNECE legislation and gives more flexibility to the automotive industry.

Vehicle Noise: European Parliament Final Vote

European Commission Original Proposal

Vehicle category	Description of vehicle category	Limit values expressed in dB(A) [decibels(A)]					
		Limit values for Type-approval of new vehicle types		Limit values for Type-approval of new vehicle types		Limit values for registration, sale and entry into service of new vehicles	
		Phase 1 valid from [2 years after publication]		Phase 2 valid from [5 years after publication]		Phase 3 valid from [7 years after publication]	
		General	Off-road *	General	Off-road *	General	Off-road *
<i>M</i>	<i>Vehicles used for the carriage of passengers</i>						
<i>M₁</i>	<i>no of seats ≤ 9</i>	70	71**	68	69**	68	69**
<i>M₁</i>	<i>no of seats ≤ 9; power to mass ratio > 150 kW/ton</i>	71	71	69	69	69	69
<i>M₂</i>	<i>no of seats > 9; mass ≤ 2 tons</i>	72	72	70	70	70	70
<i>M₂</i>	<i>no of seats > 9; 2 tons < mass ≤ 3.5 tons</i>	73	74	71	72	71	72
<i>M₂</i>	<i>no of seats > 9; 3.5 tons < mass ≤ 5 tons; rated engine power ≤ 150 kW</i>	74	75	72	73	72	73
<i>M₂</i>	<i>no of seats > 9; 3.5 tons < mass ≤ 5 tons; rated engine power ≥ 150 kW</i>	76	78	74	76	74	76
<i>M₃</i>	<i>no of seats > 9; mass > 5 tons; rated engine power ≤ 150 kW</i>	75	76	73	74	73	74
<i>M₃</i>	<i>no of seats > 9; mass > 5 tons; rated engine power ≥ 150 kW</i>	77	79	75	77	75	77
<i>N</i>	<i>Vehicles used for the carriage of goods</i>						
<i>N₁</i>	<i>mass ≤ 2 tons</i>	71	71	69	69	69	69
<i>N₁</i>	<i>2 tons < mass ≤ 3.5 tons</i>	72	73	70	71	70	71
<i>N₂</i>	<i>3.5 tons < mass ≤ 12 tons; rated engine power ≤ 75 kW</i>	74	75	72	73	72	73
<i>N₂</i>	<i>3.5 tons < mass ≤ 12 tons; 75 ≤ rated engine power < 150 kW</i>	75	76	73	74	73	74
<i>N₂</i>	<i>3.5 tons < mass ≤ 12 tons; rated engine power ≥ 150 kW</i>	77	79	75	77	75	77
<i>N₃</i>	<i>mass > 12 tons; 75 ≤ rated engine power < 150 kW</i>	77	78	75	76	75	76
<i>N₃</i>	<i>mass > 12 tons; rated engine power ≥ 150 kW</i>	80	82	78	80	78	80
*	Increased limit values shall only be valid if the vehicle complies with the relevant definition for off-road vehicles set out in point 4 of Section A of Annex II to EU Directive 2007/46/EC.						
**	For <i>M₁</i> vehicles the increased limit values for off-road vehicles are only valid if the maximum authorised mass > 2 tonnes.						

European Parliament

Vehicle category	Description of vehicle category	Limit values for Type-approval of new vehicle types expressed in dB(A) [decibels(A)]*	
		Phase 1 valid from [6 years after publication]	Phase 2 valid from [8 years after publication]
<i>M</i>	<i>Vehicles used for the carriage of passengers</i>		
	<i>no of seats ≤ 9; ≤ 125 kW/ton</i>	68	68
<i>M₁</i>	<i>no of seats ≤ 9; 125 kW/ton < power to mass ratio ≤ 150 kW/ton</i>	70	70
	<i>no of seats ≤ 9; power to mass ratio > 150 kW/ton</i>	73	73
<i>M₁</i>	<i>no of seats ≤ 4 including driver; power to mass ratio < 200 kW/ton; R point of the driver seat < 450mm from ground</i>	74	74
<i>M₂</i>	<i>no of seats > 9; mass ≤ 2.5 tons</i>	69	69
	<i>no of seats > 9; 2, 5 tons < mass < 3.5 tons</i>	72	72
	<i>no of seats > 9; 3.5 tons < mass < 5 tons;</i>	75	75
	<i>no of seats > 9; mass > 5 tons; rated engine power ≤ 180 kW</i>	74	74
<i>M₃</i>	<i>no of seats > 9; mass > 5 tons; 180 kW < rated engine power ≤ 250 kW</i>	77	77
	<i>no of seats > 9; mass > 5 tons; rated engine power > 250 kW</i>	78	78
<i>N</i>	<i>Vehicles used for the carriage of goods</i>		
<i>N₁</i>	<i>mass < 2.5 tons</i>	69	69
	<i>2.5 tons < mass < 3.5 tons</i>	71	71
	<i>3.5 tons < mass < 12 tons; rated engine power < 150 kW</i>	75	75
<i>N₂</i>	<i>3,5 tons < mass ≤ 12 tons; rated engine power > 150 kW</i>	76	76

Next steps

- The Council and the EP will have to agree on a common proposal. The Council is waiting for the position of the EP before discussing further the limits/timeline.
- Link with discussions in UNECE : COM will try to keep consistency between Brussels and Geneva. COM will inform GRB on the progress of discussion at EU level and invite other Contracting Parties to also provide information on the implementation of new limits at national/Regional level (Group of Interested Experts – 1st meeting 19th April 2013)
- New limit values to be introduced in UNECE Regulation No 51
- Adoption by the Council and the Parliament: 2013?

More information on Commission proposal

Commission proposal with impact assessment and VENOLIVA study:

http://ec.europa.eu/enterprise/sectors/automotive/documents/proposals/index_en.htm#h2-1

THANK YOU FOR YOUR ATTENTION !

Contact: Secretariat DG ENTR, automotive unit D.5

T: +32 (2) 29 91976 or (2) 29 53298

E-mail: entr-automotive-industry@ec.europa.eu



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