

COMMENTS ON PUBLIC CONSULTATION ON ROAD CIRCULATION REQUIREMENTS FOR NON-ROAD MOBILE MACHINERY

On 10 November 2020, the European Commission released the public consultation on road circulation requirements for mobile machinery regarding the possibility of developing a proposal for harmonising technical safety requirements for the road circulation of self-propelled and towed non-road mobile machinery. The emissions control industry that AECC represents, welcomes the opportunity to comment on this consultation.

Harmonising technical safety requirements for the road circulation of Non-Road Mobile Machinery will allow the machines to move and operate safely around European roads and in towns and cities. AECC welcomes and supports this. In addition, AECC believes these machines should comply with emissions requirements similar to those for on-road heavy-duty vehicles, contributing to cleaner European roads and urban areas.

AECC's vision¹ for clean, efficient, convenient and affordable mobility and commitment to the European Green Deal are fully aligned with the European Commission's objective towards climate neutral and zero-emission mobility in 2050.

Non-Road Mobile Machinery (NRMM) is a fundamental tool for the European economic development. NRMM is the backbone of the European farming, forestry and construction industry. As such, a considerable amount of this machinery moves around the European roads and cities. Therefore, harmonisation of the technical safety as well as emissions requirements for the road circulation of these machines is welcomed and supported.

NRMM are mainly powered by off-road internal combustion engines, which are divided into several engine categories. The pollutant emissions of these machines are currently controlled by Regulation (EU) 2016/1628² and its corresponding amendments. The CO₂ emissions of these machines are currently not regulated. The limits for emissions and testing conditions included in the NRMM regulation differ from what has been legislated for heavy-duty vehicles. Emission compliance is based on an engine test in the laboratory under a prescribed cycle, which does not necessarily reflect the actual mission of many of these machines. Current regulation includes an in-service monitoring framework which will be used to develop appropriate test procedures to define the in-service conformity in the future. Although the in-service monitoring scope is to evaluate pollutant emissions of these machines under a representative day-to-day operation, which is a step forward, the monitoring phase is scheduled to last until at least 2024.

It is important to point out that modern heavy-duty vehicles are now equipped with Internal Combustion Engines (ICEs) with integrated emission control systems, allowing for emissions reduction of nitrogen oxides (NOx) and particles (PM and PN) among other harmful pollutants. Similar technologies could be implemented in NRMM applications. Despite some remaining challenging areas³, commercial vehicles type-approved to Euro VI are showing low on-road emissions with improvements in emission control performance compared to previous emission stages. It is also important to note that combined lowering of pollutant emissions and CO₂ is possible.

Further improvements to lower pollutant emissions from road transport are required to comply with the ambitious 2050 goals provided by the European Green Deal. AECC demonstrates that ultra-low emissions are technically feasible for light- and heavy-duty vehicles and shows that ICEs with advanced emission control systems can achieve ultra-low emissions for NOx and particulates in real world driving⁴.

The Euro 7/VII regulation, which is being discussed by the Commission's services, is the unique opportunity to implement a regulatory framework that could consider following three overarching principles to improve European air quality and to ensure the health and well-being of everyone⁵: further focus on real-world emissions; be fuel- and technology-neutral and legislate according to a 'total system approach' using a 'whole vehicle' basis.

By harmonising the technical safety requirements for NRMM, these will be able to move constantly and operate in public roads, be it inside the cities or in rural roads. These machines should therefore also comply with emissions requirements similar to those applicable to heavy-duty vehicles. This would ensure that this sector also contributes towards the efforts made to achieve the ambitious European Green Deal goals.

Should you need more information, you can contact AECC at info@aecc.eu.

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References:

¹ AECC 2025 vision for clean, efficient, convenient and affordable mobility

<http://www.aecc.eu/wp-content/uploads/2020/02/200203-AECC-Vision-Document-Web.pdf>

² “AECC project results on Euro VI HDV real-world emissions” 4th AGVES meeting presentation.

<https://www.aecc.eu/wp-content/uploads/2020/08/200709-AECC-presentation-AGVES.pdf>

³ Regulation (EU) 2016/1628 of the European Parliament and of the Council of 14 September 2016 on requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery, amending Regulations (EU) No 1024/2012 and (EU) No 167/2013, and amending and repealing Directive 97/68/EC.

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1628&from=EN>

⁴ “Integrated Diesel System Achieving Ultra-Low Urban and Motorway NOx Emissions on the Road”, J. Demuynck, et al.; 40th International Vienna Motor Symposium, 15-17 May 2019

<http://www.aecc.eu/wp-content/uploads/2019/04/190516-AECC-IAV-IPA-Integrated-Diesel-System-achieving-Ultra-Low-NOx-on-the-road-Vienna-Symposium.pdf>

⁵ AECC position on Euro 7 emissions standards

<https://www.aecc.eu/wp-content/uploads/2020/07/200709-AECC-position-on-Euro-7.pdf>

AECC is an international non-profit scientific association of European companies operating worldwide in the research, development, testing and manufacture of key technologies for emissions control. Their products are the ceramic substrates for catalysts and filters; catalysts (substrates with catalytic materials incorporated or coated); adsorbers; filter-based technologies to control engine particulate emissions; and speciality materials incorporated into the catalyst or filter. Members' technology is integrated in the exhaust emissions control systems of cars, commercial vehicles, buses, non-road mobile machinery and motorcycles in Europe. More information on AECC can be found at www.aecc.eu and www.dieselinformation.aecc.eu.

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