



CECE – CEMA - FEM position on Stage V

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CECE, CEMA and FEM the European industry associations representing the construction equipment, agricultural machinery and handling industry are in favour of measures to improve air quality that are cost effective to all sectors of society. However, we are very much concerned by the proposed inclusion of an additional stage V in the revision of directive 97/68/EC. It can see two primary motivations from those seeking such a stage, namely:

- Air quality requirements in 2008/50/EC
- Impact of particulate emission on public health

In this respect we would like to offer the following observations.

Air quality requirements in 2008/50/EC

CECE, CEMA and FEM recognise that member states have certain air quality target they must fulfill in the frame of 2008/50/EC. In this perspective the mass of particulate emission from construction equipment has already been reduced from the introduction of stage II onwards and will be further significantly reduced from stage IIIB.

Because the largest reduction (by an order of magnitude) takes place with the progressive introduction of stage IIIB machines in 2011-13, the major benefit has yet to be realized in the coming years as more of these machines enter into operation and replace earlier stage machines. This substantial reduction will continue through stage IV. Indeed, we note that, according to a 2008 JRC report on the technical review of the NRMM directive, projections of the reduction in total tons of PM₁₀ emissions through to 2020 for the EU 27 suggest that the rate of reduction from the entire mobile machinery sector will already keep pace with the rate of reduction from the road transport sector.

CECE, CEMA and FEM are of the opinion that an additional stage of regulation for new engines will not have the immediate additional impact that might be desired by those proposing such regulation. On the contrary, we believe that the accelerated improvement of air quality can only be effectively achieved by the reduction of emissions from the legacy fleet of prior-stage machines. Such accelerated emission reduction could be achieved by the incentivized replacement of older machines, which also has the advantage of introducing more machines meeting the latest occupational and road safety requirements and outdoor noise limits.

Impact of particulate emission on public health

CECE, CEMA and FEM note that certain health studies imply a link between the inhalation of ultrafine particles (< 100 nm) and health. It further notes the following:

- Particles can come from a range of sources not just diesel engines.
- Studies presented by Leuven University by Prof. Dr. P. Hoet suggested that the estimated daily dose of PM_{2.5} and relative risk of increased mortality from exposure to such air-borne particulate ranked lower than that resulting from either active or passive smoking.

- Construction equipment particulate emission contribution to air-borne PM₁₀ are of the order of 4 % of the contribution from all mobile (transport) sources and agricultural equipment including tractors contribute for 13% (JRC technical report “2007 technical review of the NRMM directive 1997/68/EC as amended”) and are therefore a comparatively minor source of air-borne particulate.

Additional considerations on CO₂ and alignment with non-EU countries

CECE, CEMA and FEM do not believe that the current discussion on stage V has taken into account all the necessary aspects and requests that the following aspects are also taken into consideration:

- Beside air quality and public health there is also the CO₂ ‘challenge’ being managed by DG CLIMA who are not party to the current discussion. A more holistic view inclusive of CO₂ is required.
- Efforts to reduce CO₂ are intrinsically linked to the improvement of air quality and public health in addition to energy consumption, because there will be commensurate reduction in the emissions (tonnes) of NO_x, Particulates and HC. The effect of reducing energy consumption needs to be considered and evaluated as compared to specific reduction of a single emission constituent.
- All the elements of operation; the type of equipment selected, the operation of that equipment, the efficiency of the equipment and alternative fuel sources, will contribute to reduction in CO₂ and the reduced engine emission contribution to air pollution. Reducing CO₂ (and therefore fuel consumed) reduces operating costs and increases customer value, which in turn can increase sales of new machines, and can take older, higher emission, machines out of service. This is a virtuous circle!

CECE, CEMA and FEM are of the opinion to include in any Stage V development, consideration of global alignment and consequently coordinate this development particularly with the USA.

Conclusion

CECE, CEMA and FEM:

- are in favor of measures to improve air quality that are cost effective to all sectors of society.
- recommend the consideration of an incentive based replacement of older machines from the legacy fleet.
- insist that a scientific study be conducted, inclusive of the all the considerations outlined in this paper, in order to demonstrate on a scientific basis a cost benefit to society of any recommendation that is made for a stage V.
- insist on global alignment for any further stage

For more information, please contact for construction equipment – CECE - Stephan Belaen: +32 2 706 82 25, Stephan.belaen@cece.eu, for self-propelled agricultural machinery – CEMA - Ivo Hostens: +32 2 706 82 27, ivo.hostens@cema-agri.org and for materials handling, lifting and storage equipment – FEM - Olivier Janin +32 706 82 61, olivier.janin@orgalime.org
CECE represents 1200 construction equipment companies with a turnover of 20 billion € and an employment of ca. 120.000 persons in 2010, CEMA represents 4500 agricultural machinery companies with a turnover of 21 billion € and an employment of ca. 250.000 persons in 2010 and FEM represents ca. 1000 companies and an employment of ca. 160.000 persons.