

**STATEMENT
OF THE
MANUFACTURERS OF EMISSION CONTROLS ASSOCIATION
ON THE AIR RESOURCES BOARD'S
PROPOSED AIR TOXIC CONTROL MEASURE
FOR DIESEL-FUELED PORTABLE ENGINES**

February 26, 2004

The Manufacturers of Emission Controls Association (MECA) is pleased to provide testimony in support of the Air Resources Board's proposed air toxic control measure (ATCM) for diesel-fueled portable engines. We commend the Board for its continuing efforts to develop and implement effective control programs for major sources of air pollution such as this category of engines. We believe that the proposed requirements, as detailed in the Staff Report, are an important step forward in further reducing emissions from diesel-fueled portable engines.

MECA is a non-profit association of the world's leading manufacturers of emission control technology for mobile sources. Our members have over 30 years of experience and a proven track record in developing and manufacturing emission control technology for a wide variety of on-road and off-road vehicles/equipment, as well as stationary internal combustion engines.

Discussion

The ARB staff report provides an analysis of the current off-road emission standards (ARB/EPA Tier 1, 2, or 3 standards) that apply to off-road diesel engines, including those used in portable equipment. The report also details future, proposed EPA Tier 4 off-road diesel engine emission standards and technology options available to reduce PM emissions from diesel-fueled portable engines. MECA supports the analysis performed by ARB and we offer some additional comments in support of the staff's conclusions regarding the technological feasibility of diesel particulate filters (DPFs) and diesel oxidation catalysts (DOCs) to reduce PM emissions from portable engines.

Technologies to Reduce Diesel PM Emissions

Diesel particulate filters (DPFs) are commercially available today and have been successfully used in many on-road and off-road applications. High efficiency DPF technology can reduce PM emissions by up to 90 percent or more, ultra-fine carbon particles by up to 99+ percent and, depending on the system design, toxic HC emissions by up to 80 percent or more. Over 100,000 on-road heavy-duty vehicles worldwide and in excess of 500,000 diesel passenger cars in Europe have been equipped with this technology. For nonroad engines, DPFs have been successfully installed and used on mining, construction, and materials handling equipment, as well as a smaller number of ferries and locomotives. DPF technology is also projected to be utilized on highway

heavy-duty diesel engines sold in the U.S. beginning with the 2007 model year. Indeed, DPFs are currently available on selected on-road diesel vehicles in the U.S., Europe, and Asia. Also, a growing number of different filter system designs and strategies – both passive and active – are emerging. As discussed in the staff report, Tier 4 off-road engines under the current U.S. EPA proposed Tier 4 off-road emission program, would be phased-in in the 2011-2014 timeframe (depending on rated power). It is expected that these Tier 4 off-road engines, including those used in portable equipment, would make use of diesel particulate filters to meet the stringent Tier 4 PM emission standards (either 0.01 or 0.02 g/bhp-hr PM depending on rated power). These Tier 4 off-road engines would achieve diesel PM reductions of over 90% when compared to both uncertified off-road engine emission levels or PM emission levels associated with ARB/EPA Tier 3 off-road engine emission standards that are either in place currently or will be in place by 2006 (depending on rated power).

Diesel oxidation catalysts (DOCs) are capable of reducing PM emissions typically in the range of 20 to 40 percent and can reduce toxic HC emissions by up to 70 percent or more. DOCs have been used in retrofit applications for mobile sources for over 30 years. Over 100,000 on-road vehicles and 250,000 off-road vehicles and equipment have been retrofitted with DOCs. In addition, over 50 million light-duty vehicles in Europe and over three million trucks and buses in the U.S. have been equipped with DOCs as original equipment. In some cases, DOCs can be combined with water emulsified diesel fuel to obtain additional reductions of hydrocarbon and PM emissions along with reductions in NOx emissions. DOCs may also be combined in the future with other verified alternative diesel fuels or diesel fuel additives to achieve PM reductions on either on-road or off-road diesel engines.

Fleet Emission Standards and Implementation Schedule

MECA supports the proposed air toxic control measure strategies for reducing PM emissions from in-use diesel-fueled portable engines. This program along with the statewide portable equipment registration program will help achieve the estimated 2.2 tons per day diesel PM reductions by 2010 and 4.0 tons per day PM reductions by 2020 estimated by ARB in the staff report. Regarding the fleet PM emission standards and implementation dates, MECA believes ARB's proposal sets out reasonable PM fleet requirement in 2013, 2017, and 2020, and a reasonable timetable for implementation of the ATCM. MECA supports the association between the 2020 fleet PM requirement and the proposed ARB/EPA Tier 4 off-road diesel engine PM emission standard. This forces the migration of these engines to ultra-low PM emission levels either through replacement with Tier 4 engines when they become available, the use of Level 3 verified retrofit technologies, or combinations of verified retrofit technologies that achieve 85% or greater PM reduction. ARB's requirement that these portable engines be fueled with ARB diesel fuel which includes the use of ultra-low sulfur diesel fuel by these portable engines beginning in mid-summer 2006 will help promote the verification and use of diesel particulate filters and other retrofit technology options for these portable engines.

As stated in the Staff Report, there are currently no verified Level 3 diesel emission control products available for portable engines. However, MECA fully expects there to be verified Level 3 products available in the 2013-2017 timeframe when the fleet PM requirements begin to tighten. We also expect that a range of technology options including combinations of technologies will be developed to provide fleet owners with a range of options of reducing PM emissions from in-use portable engines.

Incentives

MECA supports the staff's proposal to provide operators with an early compliance incentive for Tier 4 compliant engines for the 2013 and 2017 implementation dates.

Conclusion

In closing, we commend the Air Resources Board for its leadership in reducing emissions from diesel-fueled portable engines. We support the proposed regulations and we are committed to do our part to ensure that the emission control technology is available to help meet these standards.

Thank you.

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