WRITTEN COMMENTS OF THE
MANUFACTURERS OF EMISSION CONTROLS ASSOCIATION
ON CALIFORNIA AIR RESOURCES BOARD'S
PROPOSED AMENDMENTS TO CALIFORNIA EMISSION CONTROL SYSTEM WARRANTY REGULATIONS AND MAINTENANCE PROVISIONS FOR 2022 AND SUBSEQUENT MODEL YEAR ON-ROAD HEAVY-DUTY DIESEL VEHICLES WITH GROSS VEHICLE WEIGHT RATINGS GREATER THAN 14,000 POUNDS AND HEAVY-DUTY DIESEL ENGINES IN SUCH VEHICLES

June 25, 2018

The Manufacturers of Emission Controls Association (MECA) is pleased to respond to the California Air Resources Board's request for public comments on its Proposed Amendments to California Emission Control System Warranty Regulations and Maintenance Provisions for 2022 and Subsequent Model Year On-Road Heavy-Duty Diesel Vehicles with Gross Vehicle Weight Ratings Greater Than 14,000 Pounds and Heavy-Duty Diesel Engines in Such Vehicles.

MECA is a trade association of the world's leading manufacturers of emission control technology for mobile sources. Our members have over 40 years of experience in developing and manufacturing emission control technology for a wide variety of on-road and off-road vehicles and equipment in all world markets. Our members provide the technologies that enable heavy-duty on-road vehicles to meet the most stringent NOx and PM emission standards as well as technologies that impact combustion efficiency and improve the overall CO_2 emissions of the powertrain. Our industry has played an important role in the emissions success story associated with mobile sources, and MECA has continually supported efforts to develop innovative, performance-based, emissions programs to respond to air quality problems.

MECA continues to support ARB's heavy-duty vehicle low-NOx rulemaking process, which includes setting tighter emission standards, improved in-use compliance testing, and increased emission control durability. We understand ARB's need to ensure that heavy-duty vehicles are meeting emission standards while in operation, which requires that emission critical components are repaired quickly when a malfunction occurs. We understand ARB's decision to re-evaluate heavy-duty vehicle warranties given that class 8 trucks are operating well past the 435,000 mile useful life when compared to light-duty warranties relative to their full useful life. We continue to recommend that ARB develop a holistic low-NOx emission regulation that incorporates all of the necessary components instead of separate regulations for some elements such as warranty.

We thank staff for critically reviewing all of the information provided from a broad group of stakeholders to decide upon the proposed warranty requirements. MECA appreciates the significant effort of ARB staff to understand the complexity of this issue and incorporate suggestions throughout the rulemaking process based on input by industry. We believe that this proposal will allow emission control technology suppliers time to evaluate the effects of increased warranty requirements. We thank ARB staff for setting this intermediate stage of warranty life increase at 350,000 miles to allow component suppliers to better understand the

economic impact of longer warranty periods on their business. This intermediate step is critical since ARB staff have signaled that they intend to further lengthen the warranty requirements as a part of a future heavy-duty low-NOx rulemaking that is scheduled for Board review and approval in late 2019. MECA recommends that ARB explore the possibility of licensing repair shops and instituting recordkeeping requirements when repair shops file a warranty claim. In addition, MECA supports the adoption of a comprehensive inspection and maintenance program to ensure that emission controls are maintained, remain on vehicles and continue to function properly to deliver the expected emission benefits. Finally, we encourage ARB to retain an hours limit, for vocational vehicles that may operate for thousands of hours prior to reaching the mileage or 5 year threshold.

MECA members manufacture durable parts according to the specifications demanded by their customers, the OEMs, as part of individual business agreements. The individual component specifications provided to the supplier may not include a correlation between the specification and how that relates to mileage durability on the vehicle. Furthermore, suppliers do not have available to them the full extent of parts failure and durability information that is available to the OEMs through their dealer networks. In fact, many component suppliers have limited visibility on parts that are replaced beyond the current 100,000 mile warranty period. This makes it difficult for suppliers to project the number of warranty claims they can expect to receive if the warranty period is extended to 350,000 miles. Furthermore, when suppliers receive parts returned under warranty, they are frequently accompanied by very little information on the diagnosis made by the repair technician. In some cases, a supplier finds that the part is working fine even though a technician has decided to remove and replace it due to insufficient time available to properly assess the root-cause of the failure. MECA recommends that ARB staff explore a requirement that repair shops become licensed and keep records of the diagnosis, repair and replacement of emission control parts under warranty that will be shared with OEMs and the specific component suppliers.

MECA appreciates ARB staff's attempt to analyze the costs associated with an increased heavy-duty vehicle emission control system warranty. ARB's cost analysis is primarily based on the costs associated with the increased repairs that would occur between currently available standard warranty terms and the proposed requirement of 350,000 miles of a vehicle's life. ARB staff correctly reasoned that these increased costs would be built into the price of new trucks and passed down to owner operators, which has been indicated by truck manufacturers. However, ARB staff failed to include in their cost analysis the costs associated with the time needed for truck makers and parts suppliers to investigate warranty claims, including the administrative effort to track and ship returned parts as well as the time to test and diagnose the root-cause of the failed component. Longer warranties may also have the unintended consequence of falsely diagnosed replacement of properly functioning parts by repair shops, which will unnecessarily drive up costs. In addition, MECA believes that the increase in the cost of trucks will include some margin to allow for the uncertainty and risk associated with increased warranty requirements.

ARB's ISOR does not mention the emission control and efficiency technology supplier industry as businesses affected by this proposal. However, the costs for the warranty may be shared between the OEM and the parts supplier (Kohler and Watson,

https://www.stoutadvisory.com/insights/article/warranty-cost-sharing-framework-resolving-disputes). As mentioned in this article, parts are returned under warranty to suppliers, and requires them to diagnose the part to confirm the repair shop's claim. Repair shops are often under extreme pressure to fix a malfunctioning vehicle so that the owner can return the vehicle to operation. Some malfunctions that result in the illumination of the MIL are due to failure of an upstream part in the engine that results in a downstream component failure and fault code. However, a complete diagnosis of the failure may take more time than an operator is willing to wait, which can result in a hasty diagnosis by a repair technician. Since the parts will be assumed to be covered under warranty, the technician will default to replacement of all parts that may be responsible for a fault code. Truck manufacturers and parts suppliers will then be responsible for determining if the correct repairs were made and whether the OEM or supplier will cover the associated costs. This postmortem analysis and negotiation can take significant time and resources on the part of manufacturers and will contribute to the cost of warranties and therefore needs to be included in the cost analysis.

Another industry that will be adversely impacted by this rule and should be included in the impact analysis includes manufacturers of aftermarket replacement parts for heavy-duty vehicles, including DPFs for 2007-2009 MY engines. The longer warranty requirements will have a negative impact on these aftermarket parts manufacturers due to the requirement that aftermarket parts may not be installed on vehicles that are currently under warranty. In most cases, aftermarket parts suppliers have responded to the market need for durable cost-effective replacement parts to help vehicle owners affordably maintain their vehicles. The availability of certain aftermarket parts will likely decrease in California if manufacturers of these parts are unable to recover the investment needed to develop, manufacture and market them.

MECA encourages ARB staff to retain an hours of use limit for vocational vehicles because some may operate for thousands of hours prior to reaching the mileage or yearly threshold. Some trucks operate at low-speeds for short routes over the course of a work day, including frequent times of engine idling. Others are operated while the vehicle is stationary and the engine is used to power certain functions (e.g., utility trucks). Over the course of a vehicle's life, this results in the engine operating for many hours while the odometer may not reflect this in terms of distance driven. For comparison, heavy-duty off-road equipment, such as construction vehicles, operate in a similar manner, which is why they are generally equipped with hour meters, and owners log the hours instead of mileage of these equipment. MECA suggests that ARB retain the concept of an hours limit in the current warranty rule update to account for high use low-mileage vehicles. The hourly warranty limit increase should be proportional to the increased mileage limit being proposed.

MECA requests that ARB staff include language similar to other "not replaceable" components like DPF and SCR in the minimum repair/replacement interval tables to allow for certain components, which are part of a larger technology system, to be designated for repair or replacement. For example, enabling maintenance by repair or replacement of the electronic actuators and sensors that are not an integral part of the device such as a turbocharger or exhaust gas recirculation (EGR) unit would ensure the emission performance of the engine remains within its limits. For components that are usually easily accessible and relatively inexpensive, we request that they be subject to the intervals designated for the "ECU, Sensors, Actuators"

category in the "Heavy Heavy-Duty Diesel Engine (GVWR > 33,000 lb.) Maintenance Interval" table. In addition, we request that these parts not be included with the turbocharger or EGR system as "not replaceable."

It is important to remember that ARB staff's current proposal ultimately shifts the responsibility from the end user to the truck manufacturer to cover the costs of replacing emission critical parts. However, this does not address the need for identification of malfunctions in the field, and this proposal does not include an inspection requirement to ensure that end users repair their vehicles. Periodic inspection and maintenance (I/M) tests are critical to a comprehensive vehicle emissions reduction strategy. Programs like HDVIP and PSIP, which include opacity tests, have been implemented to ensure that vehicles meet applicable PM emission standards under normal operating conditions. An I/M program is the most effective way to ensure that emission controls are maintained and remain on vehicles and continue to function properly to deliver the expected emission benefits. Timely engine and aftertreatment maintenance will also extend the health of the engine and reduce the total cost of ownership.

MECA encourages ARB to continue to explore the potential concepts for future comprehensive I/M programs that go beyond HDVIP and PSIP. MECA supports the use of OBD, and potentially telematics, to screen vehicles that were manufactured with the applicable OBD sensors. Future programs may rely on a download of information from the OBD computer module to check if any emission system malfunction codes were recorded. Since this work takes place at truck repair shops or inspection stations, proper training of repair shop technicians and mechanics is vital to an effective I/M program, and MECA supports ARB's efforts to ensure this through licensing or other means. In addition, MECA encourages ARB to share their I/M experience with other states so that all trucks driving on our nation's highways are as clean as possible. After ARB develops a comprehensive I/M program, it will serve as a model for other states that are struggling with measures to upgrade their inspection programs to be more representative of the latest truck emission control technology.

In conclusion, MECA would like to thank ARB staff for their diligent work and dedication to address the concerns of all stakeholders in developing this proposal. Specifically, the decision to incrementally increase the heavy-duty warranty length to 350,000 miles will allow emission control and efficiency technology suppliers to work with their customers to assess the impacts of an extended warranty. We believe more time is needed to fully understand the effects of longer warranty requirements on costs to emission control and efficiency technology suppliers. MECA recommends that ARB explore the possibility of licensing repair shops and instituting recordkeeping requirements as part of a future heavy-duty inspection and maintenance regulation. We request that ARB retain the hours limit for vocational vehicle warranties to account for vehicles that operate for many hours but low mileage. We will continue to support ARB's need to ensure that heavy-duty vehicles are meeting emission standards while in operation by providing durable emission critical components. MECA looks forward to working with ARB staff throughout the heavy-duty low-NOx rulemaking process in order to help meet California's emission reduction goals.

CONTACT:
Rasto Brezny
Executive Director
Manufacturers of Emission Controls Association
2200 Wilson Boulevard
Suite 310
Arlington, VA 22201
Tel.: (202) 296-4797 x106
E-mail: rbrezny@meca.org