

**STATEMENT OF THE
MANUFACTURERS OF EMISSION CONTROLS ASSOCIATION
ON THE CALIFORNIA AIR RESOURCES BOARD'S
PROPOSED AMENDMENTS TO THE RED STICKER PROGRAM FOR OFF-
HIGHWAY RECREATIONAL VEHICLES**

April 22, 2019

The Manufacturers of Emission Controls Association (MECA) is pleased to respond to the California Air Resources Board's (CARB) request for public comments on its proposed amendments to the Red Sticker program for off-highway recreational vehicles (OHRV). We support CARB's proposal to sunset the current Red Sticker program since it has long served as a loophole to allow off-highway motorcycles (OHMC) with uncontrolled emissions to be manufactured and sold for operation in California. We believe that sunsetting the Red Sticker program and aligning with federal standards for OHMCs is a balanced approach for achieving further reductions of reactive organic gases and exhaust emissions from recreational vehicles. While we understand the economic challenges of this recreational vehicle sector, MECA believes that further reductions of HC + NO_x are achievable through implementation of readily available catalyst and evaporative control technologies. We agree with staff's decision to propose setting California-specific standards that are more stringent than federal standards for model year 2028 and later OHRVs. The technologies to meet these exhaust and evaporative emission standards are available and already in use on passenger cars, on-road motorcycles and other spark-ignited (SI) engines, in many cases for decades, to help meet California's air quality objectives.

MECA is a non-profit association of the world's leading manufacturers of emission control, combustion efficiency and GHG reduction technology for mobile sources. Our members have over 45 years of experience and a proven track record in developing and manufacturing clean mobility solutions for a wide variety of on-road and off-road vehicles and equipment, including extensive experience in the development, manufacture, and application of exhaust and evaporative control systems on all types of spark ignited on-road and off-road vehicles and engines in all world markets. Our industry has played an important role in the emissions success story associated with reducing emissions from mobile sources in California, the U.S. and globally. Our members are commercializing the technologies to allow motorcycles to meet stringent Euro 5 standards in Europe.

MECA members have a long history of developing new technologies for automotive markets and engineering these into diverse applications in both on and off-road engines and vehicles so that all internal combustion engines can benefit from the cleanest emissions control technologies. We believe that improved engine/fuel management combined with evaporative control can provide significant emission reductions from OHRVs such as off-road motorcycles, all-terrain vehicles (ATVs) and specialty vehicles including off-road sport vehicles, utility vehicles and sand cars. These technologies and strategies are designed to be durable, cost-effective and safe. We believe that the technology combination of low permeation fuel tanks and hoses with sealed fuel injector technology and activated carbon canisters will effectively achieve

the proposed limits from this category of vehicles during storage as well as normal operation. The same type of evaporative control technology has been successfully incorporated on passenger vehicles 40 years ago and has advanced to allow today's automobiles to meet zero evaporative emissions.

MECA believes that the proposed alternative evaporative emissions standards from 2020 through 2026 for OHMCs and ATVs will provide flexibility to manufacturers of OHRVs. One of the cost savings noted by CARB staff is from permitting OHRVs to be certified under the design-based process because they are not subject to a full vehicle evaporative emissions standard, which reduces development and certification costs. However, experience from CARB's own testing on small off-road engines (SORE) has demonstrated high evaporative emissions from equipment certified in this manner compared to total system performance certification using a standard SHED apparatus. This has resulted in changes to the CARB certification requirements for SORE. For this reason, we continue to support use of a SHED to conduct evaporative emission control system certification over component design certification. We urge CARB staff to develop a robust in-use testing plan to confirm that the OHRVs with individual components certified to performance standards are achieving the necessary in-use evaporative emission levels on a whole vehicle basis.

MECA and our members continue to urge ARB staff to explore the use of catalyst exhaust control technologies for further reducing ozone forming emissions such as hydrocarbons and NOx from off-highway recreational vehicles. Catalyst technology can be designed and applied to this category of engines based on the years of development, experience, and successful application of three-way catalyst (TWC) technology in a variety of mobile source applications, including on-road motorcycles. Catalyst technology can be applied to both carbureted and direct injection engines. In fact, direct injection technology, combined with closed loop controls, greatly facilitates the effectiveness of catalysts. Catalysts can be designed to provide varying HC reductions depending on the target emission level of a particular engine design. Reductions from 50 percent to in excess of 80 percent can be achieved if the catalyst is properly integrated with the engine for which it is applied. As was demonstrated by the U.S. EPA in their safety study on small off-road and handheld SI engines, catalyst technology can be designed to work safely and packaged effectively in small, confined engine applications. As is the case with other engine applications, the key to applying catalyst technology to OHRV engines is to take a systems approach optimizing the engine and the catalyst to work together.

Conclusion

In closing, we commend CARB for its continuing efforts to provide the people of California with healthy air quality by closing the Red Sticker loophole. We also wish to thank the CARB staff for their willingness to work closely with all stakeholders throughout the regulatory process. Our industry pledges its continued support and commitment to ensure that the technologies are available to deliver the emission reduction goals for OHRV. We urge CARB to conduct a comprehensive in-use test program to verify that the evaporative emissions from OHRV with component certified parts are achieving low evaporative emissions in the real world. We believe that further reductions are achievable from this category of off-road vehicles through the use of exhaust emission controls. MECA members commit to working with CARB

staff to demonstrate the reliable, effective and safe application of catalysts in on-road motorcycles as part of that rulemaking, which will serve as an example of approaches to clean-up the recreational vehicle sector.

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