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November 14, 2008

Mr. James Goldstene
Executive Officer
California Air Resources Board
1001 I Street
Sacramento, CA 95812

Dear Mr. Goldstene:

SCAQMD Staff Comments on the California Air Resources Board
Proposed Amendments to the Current Regulations for Large Spark-Ignition
Engines with an Engine Displacement Less Than or Equal To One Liter

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to provide comments on the California Air Resources Board's (CARB's) proposed amendment to the regulation for large spark-ignition engines with an engine displacement less than or equal to one liter. Due to their large population and wide range of uses, these engines remain an important source of air pollutant emissions in the South Coast Air Basin. Achieving the attainment deadlines of 2015 and 2024 for the federal annual $PM_{2.5}$ and 8-hour ozone ambient air quality standards, respectively, remains a significant challenge in our Basin. Therefore, emission reductions from these sources are critical in our efforts to attain federal air quality standards.

CARB staff is proposing amendments to the large spark-ignition (LSI) engines regulation that include: more stringent exhaust emission standards, new evaporative emission standards and requirements, and additional test procedures for the LSI engines used in off-highway recreational-vehicle-like applications. SCAQMD staff support CARB staff's proposal to increase the stringency of the emission and evaporative standards for LSI engines less than one liter in displacement. Currently, the exhaust emission

standards for LSI engines less than or equal to one liter are significantly less stringent (by a factor of more than 4) than those for engines larger than one liter. The emission control technologies to meet the proposed emission levels have been available and proven effective on most engines above one liter in displacement. Additionally, there are many LSI engines less than or equal to one liter currently meeting the proposed emission levels using the same emission control technologies as their larger counterparts. Therefore, the proposed standards are technologically feasible and cost-effective.

CARB staff is proposing, however, less-stringent standards for engine sizes less than 825 cc in displacement because of the small number of sales (~8% of commercial sales of LSI engines are below 825cc) and poor cost-effectiveness. CARB staff is proposing an exhaust emission standard of 8 g (combined HC+NOx)/kW-hr for this category of engines, which is 10 times greater than the emission standard for engines larger than 825 cc. SCAQMD staff is concerned that migration from the more stringently regulated category above 825 cc would occur (as evidenced when the greater than one liter engines were more stringently regulated). In addition, because of the large difference in emission standards, a small number of large engines migrating to the smaller engine category would erase the emission reductions gained by the proposed regulation. Moreover, the very generous time frame (especially in light of the fact that there are engines today that meet the proposed 2015 standard) of seven years should provide adequate time for manufacturers to cost-effectively meet the exhaust emission standard of 0.8 g (combined HC+NOx)/kW-hr proposed for LSI engines less than one liter but greater than 825 cc. Therefore, SCAQMD staff urges CARB to set the same requirements proposed for all LSI engines less than or equal to one liter at 6.5 g HC+NOx / kW-hr in 2011 and 0.8 g HC+NOx / kW-hr in 2015.

Thank you again for the opportunity to provide these comments. If you have any questions about these comments, please feel free to call either myself or Henry Hogo, Assistant Deputy Executive Officer - Mobile Source Division, Science and Technology Advancement, at 909-396-3184.

Sincerely,

Barry R. Wallerstein

Barry R. Wallerstein, D.Env.
Executive Officer

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