STATE OF CALIFORNIA
AIR RESOURCES BOARD

Emission Standards and Test Procedures For New 2007 and Later Off-Road Large Spark-Ignition Engines and Fleet Requirements for Users of Off-road LSI Engines;	))))))	Agenda Item: 06-5-4 Board Hearing: May 25, 2006

COMMENTS OF THE ENGINE MANUFACTURERS ASSOCIATION

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On February 21, 2006, the California Air Resources Board ("ARB") published its Notice of Public Hearing to Consider Adoption of Emission Standards and Test Procedures for New 2007 and Later Off-Road Large Spark-Ignition Engines and Fleet Requirements for Users of Off-Road LSI Engines. Subsequently, a notice of postponement was published by ARB changing the public hearing for this agenda item to May 25, 2006.

The Engine Manufacturers Association ("EMA") is the international trade association that represents the interests of the world's leading manufacturers of engines, including manufacturers of small spark ignition engines that are equal to or less than one liter in displacement. EMA's comments are limited to those aspects of the proposed LSI rule that apply to engines larger than 25 HP and less than or equal to one liter in displacement.

I. Background

EMA has worked with ARB concerning the LSI emission reduction program since its introduction in January 2004. The staff discussion, industry workshops and industry involvement leading to this rulemaking were focused almost exclusively on propane fueled forklift applications. At the outset, and throughout the rulemaking process, EMA and its members explained the special circumstances associated with the market segment of spark ignition engines greater than 25 horsepower and less than or equal to one liter in displacement ("small SI engines"). Most important, EMA and its members explained why the existing standard structure should be retained through the regulatory process. Among other things, retaining the existing standard structure recognizes that the distinct technology, application, cost, and market differences of small SI engines (compared to LSI engines) and the benefits associated with harmonization with EPA. Through the rule development process, and in the proposed "Manufacturer Standards and Test Procedures" distributed with the public notice for this agenda item, ARB Staff has recognized the existing standard structure and provided the necessary alignment with U.S. EPA regulations for small SI engines. This alignment specifically allows the engine manufacturer to select if the engine family in question is a small SI engine derivative (most appropriately regulated to the Small Spark Ignition Exhaust and Evaporative emission requirements as identified in Title 13 of the California Code of Regulations), or is derived from a

large spark ignited engine most appropriately regulated to the Large Spark Ignition Exhaust and Evaporative provisions.

II. Impact of the Proposal

The proposal does not directly stipulate a reduction in exhaust emission levels from engines less than or equal to 1.0 liter in displacement. However, the proposal does provide for reduced exhaust emission levels for those engines if the manufacturer chooses to certify those engines to the California Air Resources Board Tier III exhaust emission standards as provided in the Small Spark Ignited Engine standards per Title 13 Chapter 9.

The proposed evaporative emission requirements provide a harmonized control requirement with the existing U.S. EPA evaporative control requirements as specified in the CFR Title 40 Part 1048 for engines greater than one liter in displacement. However, the proposal does not harmonize with U.S. EPA's regulatory program for small SI engines that are allowed to be certified to 40 CFR Part 90, which does not include evaporative requirements. As a result, there has been no product development, and their likely will be no product available, for engines less than or equal to one liter in displacement, or equipment using such engines, for a regulation proposed to take affect with less than one year leadtime. The proposal does allow for engines less than or equal to 1.0 liter in displacement to be certified to ARB Small SI evaporative provisions per Title 13 Chapter 15. The Small SI evaporative provisions provide for additional control of permeation, diurnal, and running loss emissions resulting an environmental benefit for engines and/or equipment certified to these requirements. However, the small SI evaporative provisions are scheduled to take affect in the 2008 model year, which starts as early as July 2007 for some manufacturers thus providing only a little over a year.

ARB has not considered the cost or technical feasibility of compliance with the regulatory provisions being proposed for the special segment of engines larger than 25 HP and less than or equal to one liter in displacement. Indeed, manufacturers have not examined the cost or feasibility issues. However, it is clear that the leadtime provided in the proposal is not adequate for those engines or their related equipment.

III. Recommendation

In the proposed rulemaking, Section 2433 (b)(1), ARB proposes to retain the existing exhaust emission requirements for engines less than one liter in displacement while proposing lower emission standards for engines greater than one liter in displacement. ARB's proposal fails to address engines at one liter in displacement. EMA anticipates that this is an inadvertent printing error as engines equal to one liter are currently included in the less than or equal to category.

To minimize any confusion between the regulatory requirements of the ARB Staff proposal, EMA recommends that Section 2433 (b)(1) Exhaust Emission Standards and Section 2433 (b)(3) Evaporative Emission Standards be clarified to reflect the provisions outlined in Sections 1048.101(f), 1048.615(a), and 1048.615(d) as described in Appendix A Part 4 "California Exhaust and Standards and Test Procedures for New 2007 through 2009 Off-Road

Large Spark-Ignition Engines" and Part 5 California Exhaust and Standards and Test Procedures for New 2010 and Later Off-Road Large Spark-Ignition Engines" regarding engine less than or equal to 1000 cc (1.0 liter) in displacement.

Further, when this proposed regulation was originally heard by this Board in June of 2005, the ARB Staff proposal included language regarding the implementation schedule for evaporative emission controls for engines less than or equal to 1.0 liter in displacement to address the lack of leadtime provided for these engines to comply. Based on principles of due process and fundamental fairness, ARB should not now impose new requirements without notice or leadtime. The implementation schedule for these engines should be set for model year 2010 in accordance with the previous Board adopted regulatory language.

EMA would like to thank the ARB Staff for including in the proposal the flexibility provided to the small spark ignited engine industry by EPA to certify small spark ignition derived engine families, less than or equal to 1.0 liter in displacement, to the applicable small spark ignited engine regulatory requirements. This flexibility will provide California with additional air quality benefits through the implementation of significantly lower exhaust emission standard levels and additional control of evaporative emissions for those engine families certified to the small spark ignition regulatory requirements.

If you have any questions about EMA's comments, or would like to discuss this matter further, please do not hesitate to call.

Respectfully submitted,

Engine Manufacturers Association

Proposed Amendments to the Proposed LSI Regulation Order, Part 1

Section 2433 (b)(1) Table

2002 and subsequent line in the table:

1) under engine displacement: ≤ 1.0 liter
2) add a footnote referring to provisions in 1048.101 and 1048.615

Section 2433 (b)(3) Evaporative Emission Standards

(A) Starting in the 2007 model year, engines *greater than 1.0 liter in displacement* that run on a volatile liquid fuel (such as gasoline), must meet the following evaporative emissions standards and requirements:

(B) Starting in the 2010 model year, engines less than or equal to 1.0 liter in displacement that run on a volatile liquid fuel (such as gasoline), must meet the following evaporative emissions standards and requirements or the requirements of Title 13, California Code of Regulations, Chapter 15, Article 1:

EMADOCS: 7471.4