

Limits and Measurement Methods for Exhaust Pollutants from Small Spark-Ignition Engines of Nonroad Mobile Machinery (I, II)

China Draft National Standard proposed by
Environmental Protection General Bureau

Euromot Comments

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EUROMOT

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Comments Submitted by

**The European Association of IC Engine Manufacturers
EUROMOT**

Introduction

Euromot welcomes the opportunity to comment on the draft “Limits and Measurement Methods for Exhaust Pollutants from Small Spark-Ignition Engines Nonroad Mobile Machinery (I,II),” published by the National Environmental Protection General Bureau (“NEPGB”) on November 14, 2007.

The following comments have been developed cooperatively with the US Outdoor Power Equipment Institute (OPEI) and the US Engine Manufacturers Association (EMA).

Overview and Background

- **The unique challenges presented by Small SI engines**

Exhaust emission control technologies for Small SI engines are similar to, but cannot be derived from, other nonroad engine applications or onroad applications. Both the engines and the equipment that they power operate under significantly different environmental and cost considerations. Such considerations pose major obstacles to any wholesale transfer of advanced exhaust emission control systems and necessarily prevent the fuel and exhaust control technologies used in on-highway or nonroad large spark-ignition engines from being applicable to these products.

- **Cost sensitivity of Small SI engines and equipment**

Manufacturers of equipment powered by Small SI engines are extremely cost sensitive. Whether the equipment manufacturer designs and builds integrated engine/equipment, such as handheld chain saws or trimmers, or purchases engines for integration, such as lawn mowers, cost is a major factor. Therefore, it is especially important to minimize the regulatory cost burden associated with emission related product changes and demonstration of emission compliance for engine manufacturers as well as equipment manufacturers. International harmonization of global Small SI regulations significantly helps to control regulatory cost burden.

▪ **The Need to strive for international harmonization of NRMM regulations**

Small SI engines are currently regulated for exhaust emissions in the USA, EU and Canada. The regulatory requirements in these regions are similar, allowing compliant product to be distributed in each of these regions without location specific modification. In fact, compliance with Canadian Small SI regulations can be accomplished by demonstrating that the manufacturer has obtained either a US EPA Certificate of Conformity or an EU Type Approval for their engines. The ability to develop, certify, and distribute a common product controls engine manufacturer costs and maximizes product offerings available in each distribution region.

The pending regulation released by NEPGB properly recognizes the important benefits of international harmonization of emission standard requirements to levels that can be effectively implemented. Euromot supports the overall framework of the proposed regulation, and urges NEPGB to consider the minor changes outlined in these comments in order to further enhance international harmonization.

Suggested Changes

In order to significantly enhance international harmonization EUROMOT invites NEPGB to consider the following suggestions before finalizing the rule:

1. Euromot recommends to (i) implement the Type Approval certification procedure currently used in the EU and (ii) accept the emission test data used by the manufacturer to support either an EU Type approval or a U.S. EPA Certificate of Conformity.
2. Due to the small size of Small SI engines, the engine emission labels are extremely small. Accordingly, the information required to be included on the label should be limited. A good example of successful labeling requirement is the EU which requires only the manufacturer name and Type Approval number to be included on the label. Euromot recommends that the final regulation give the manufacturer the option to combine information required with information required by EU and U.S. EPA on a single label.
3. Euromot recommends to consider international alignment of exhaust emission testing procedures and requirements, including alignment of test fuel requirements. Specifically, Euromot proposes the following:
 - a. The proposed definition of “intermediate speed” is different than existing regulatory requirements in both the U.S. and the EU. In order to achieve alignment with the EU and U.S. regulations, the intermediate test speed be prescribed as 85% of the
 - b. The certification and audit test fuel specification should either be (i) expanded to allow the use of either EU certification fuel or U.S. EPA certification fuel or (ii) provide an option to demonstrate that these fuels provide equivalent results.
 - c. Determination of the exhaust emission deterioration factor is a critical part of the demonstration of compliance at the time of certification for Stage II requirements. It is important that manufacturers have the ability to determine deterioration factors in the same manner used for either the U.S. or the EU standards.
4. Euromot recommends the NEPGB to consider introducing an exemption scheme into the final rule as follows:
 - a. Include the exemptions provided for within the EU regulation for small handheld SI product/engines where no current technologies exist, or (ii) include the U.S. EPA Averaging, Banking and Trading (ABT) flexibility

- b. Include a small volume family exemption such as included within the EU and U.S. EPA regulations.
5. Euromot recommends the NEPGB to clarify in the regulation if the engine production date shall be used for compliance (U.S. EPA) or the date of placing on the market (EU) shall be used.
6. Euromot supports the adoption of mandatory emission standards and requests that NEPGB assure certainty in compliance in the enforcement section. Equal compliance requirements are necessary to maintain a balanced business environment and a meaningful reduction in air pollutants. Euromot supports efforts to strengthen compliance and enforcement to prohibit importing, distributing, and selling uncertified, non-compliant products.

Conclusions and Recommendations

Euromot supports NEPGB's basic framework for the pending regulation, as well as the regulation's approach to the certification process and the standardization of testing requirements. NEPGB has done an excellent job of striking an appropriate balance between imposing new, stringent, technology forcing standards and creating an overall regulatory framework that is feasible, cost-effective and implementable.

For the reasons discussed above, Euromot urges NEPGB not to change the overall framework of the rule. Further, in order to reduce unnecessary regulatory burden while preserving the rule's overall environmental benefits, Euromot recommends that NEPGB take the following actions:

1. Incorporate Euromot suggestions with respect to product labeling in order to ensure workable product labeling requirements for Small SI engines
2. Ensure that exhaust emission test procedures and test fuel specifications do not require manufacturers to conduct duplicate testing
3. Ensure the needed flexibilities or exemptions are in place to align with the current EU or regulations
4. Ensure that compliance enforcement is sufficient to protect both the business and natural environments

Euromot and its members remain committed to working with the Technical Standard Office of the National Environmental Protection General Bureau to ensure the finalization and implementation of a successful Small SI engine regulation, which will significantly contribute to improved air quality across the People's Republic of China.

For further information please do not hesitate to contact us.

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