



# Regulatory Announcement

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## Minor Amendments to Emission Requirements Applicable to Small Nonroad Spark-Ignition Engines and Marine Spark-Ignition Engines

*The U.S. Environmental Protection Agency (EPA) is adopting several minor revisions to current regulations concerning exhaust emissions from: (1) nonroad spark-ignition engines at or below 25 hp, such as lawnmowers, string trimmers and chainsaws (known as the "Small SI" rule); and (2) marine outboard and personal watercraft spark-ignition engines used in recreational boats and jet skis (known as the "Marine SI" rule). These revisions address minor issues that have arisen since EPA began implementing these two rules in 1997-1998.*

### Background

The amendments being adopted address four specific issues for Small SI engines and Marine SI engines.

- The amendments specifically classify model airplane engines as "recreational" and thereby exempt them from coverage under the Small SI rule.
- The amendments revise the definition of "handheld" in the Small SI rule to include engines that may weigh too much to be "handheld" under the current definition only because they have advanced or additional emission control technology.

- The amendments provide compliance flexibility to small volume Marine SI engine manufacturers who may face difficulties with the existing averaging program because they have very limited product lines.
- The amendments limit the applicability of the current replacement engine provisions in the Small SI and Marine SI rules so that the replacement engine provisions cannot be misused by importers who may be “manufacturers” by definition of the Clean Air Act, but do not actually manufacture engines.

### **How does the rule address each of these issues?**

#### **Model airplane engines**

Background: When the Small SI rule was written, EPA was unaware that approximately 8,000 nonroad spark ignition engines are sold in the United States each year that are used by hobbyists in model aircraft, boats and cars. EPA has no emission data on these engines and is concerned that the Small SI test procedure may not be appropriate to represent the operation of these engines. Further, many of these engines are produced by very small entities that may lack the resources to conduct emission testing and certification. These engines represent a just a fraction of a percent of the 20,000,000 Small SI engines sold each year in the United States that are covered under the Small SI rule.

Final rule: There is a minor change to the definition of the term “recreational” as used in the Small SI rule so that it would include model airplane engines. We believe that the existing definition and regulatory text already place engines used in model boats and cars under the term “recreational.” “Recreational” engines are excluded from coverage under the Small SI rule. We plan to evaluate the emissions and appropriate standards and test procedures for recreational engines in a future rulemaking. We believe this is a more appropriate forum to determine whether regulations are necessary and appropriate for model airplane, car and boat engines.

#### **The weight limit in the definition of “handheld” in the Small SI rule**

Background: Handheld equipment has historically used lightweight two stroke engines which have much higher emissions than the heavier four stroke engines. While the Small SI rule regulates the emissions from both “handheld” and “nonhandheld” engines, it applies less stringent standards to “handheld” engines than to “nonhandheld” engines. To limit the use of two stroke engines to

**Compliance flexibility for small volume marine SI manufacturers**

equipment that truly must be “handheld,” the Small SI rule provides for equipment weight limits above which a piece of equipment is considered non-handheld and must use an engine which meets the more stringent nonhandheld engine standards.

Recently, a manufacturer of handheld equipment pointed out that the current weight limits on handheld equipment prevent the use of lightweight four stroke engines that are intended for handheld equipment and are much cleaner than conventional two stroke engines.

Final Rule: We are not changing the weight limits, but in cases where a piece of equipment exceeds the weight limit, the engine will still be eligible for the handheld standards, if the excess weight is directly attributable to the use of a four stroke engine or other clean technology.

Background: The current marine SI standards are centered around an averaging, banking and trading program whereby engine manufacturers can offset engines that exceed the emission standard with engines that are under the standard. Such averaging schemes are common in EPA rules and allow EPA to impose tighter overall standards than might otherwise be possible in a situation where every engine had to comply with the same standard.

While averaging, banking and trading (ABT) programs have many advantages, they may pose difficulties for very small engine manufacturers that lack a diverse product line. These companies may only have one engine family and, if it exceeds standards, they will not have a “clean” engine family to offset it. Theoretically, these companies could buy emission credits from other marine SI engine manufacturers, but there is no guarantee that credits will be available for sale at a reasonable price. EPA’s experience with ABT under other rules indicates that manufacturers are reluctant to sell credits to competitors.

We have become aware that some very small manufacturers of marine SI engines exist who may be unable to offset the emissions of their sole engine family in the later years of the marine SI standard phase-in. These manufacturers either require additional time to comply or to stage an orderly exit from the market. These manufacturers point out that their products may be cleaner than similar size

engines from larger competitors, but they will lack the emission credits to cover them that their larger competitors will generate from other engines.

In more recent nonroad rules, we provided special flexibilities for small volume manufacturers. Typically, these flexibilities would exempt small volume manufacturers from phase-in requirements and require them to simply comply with the final phase-in requirement.

Final Rule: Because the marine rule has an unusually long (9 year) phase-in, we are not exempting very small marine SI manufacturers from the entire phase-in, but rather a manufacturer producing less than 1000 engines per year would be allowed one four-year “window” beginning in model year 2000 or later when it could maintain a negative credit balance, subject to some very specific constraints.

**Applicability  
of the  
replacement  
engine  
provisions to  
certain  
importers**

Background: Our replacement engine provisions permit engine manufacturers to sell uncertified pre-regulatory engines or certified engines built to earlier standards in cases where an owner requires a replacement engine, and no certified engine is available (either performance or physically) to fit the equipment. Typically, the manufacturer must ascertain that no certified engine from any manufacturers’ product line is available that will fit the equipment. The engine manufacturer must also take the old engine in exchange for the new uncertified engine and destroy it.

These replacement engine provisions affect only a very small fraction of engines sold each year and serve to aid equipment operators who experience premature engine failures where engine repair or rebuild is not available, costs too much, or takes too long.

Under the Clean Air Act definitions, any importer of an uncertified engine is considered a “manufacturer.” Such importers may actually have had nothing to do with the actual production of the engine. Abuse could occur under the Marine SI and Small SI rules if, for example, an equipment operator imported an uncertified engine. Since it would be a “manufacturer” by definition, the equipment operator could determine that no certified engine was available from itself, and improperly import an uncertified engine, when a certified engine might actually be available from the original engine manufacturer.

Final Rule: We are amending both the Small SI and Marine SI replacement engine provisions to require that, if an uncertified replacement engine is to be imported, the engine manufacturer's designated representative must determine that no certified engine is available to fit the equipment.

## **How will these revisions affect the Small SI Phase 2 Rule?**

These revisions affect the existing Small SI engine rules. The Phase 1 rule took effect in 1997; the Phase 2 nonhandheld rule was adopted in March 1999; and the Phase 2 handheld rule is being adopted along with these amendments.

## **How can I get more information?**

You can access the entire text of the final rule, including both the preamble and the regulatory text, electronically on the Office of Transportation and Air Quality Web site at:

<http://www.epa.gov/otaq/nonroad.htm>

When you access this web site, click on the "Nonroad Engines and Vehicles" icon. Then click on "Laws and Regulations," then "Spark-Ignition Engines" and then scroll down to "Spark Ignition Engine Emissions Regulations/Related Documents."

For further information on this final rule, please contact John Guy at:

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## **How can I view comments sent to EPA on this final rule?**

Materials relevant to these amendments are contained in Docket No. A-98-16 and are available for public inspection and copying at the following address:

U.S. Environmental Protection Agency  
Air and Radiation Docket (6102)  
401 M Street SW  
Washington, DC 20460

The docket is located in Room M-1500, Waterside Mall (ground floor) and may be inspected from 8:30 a.m. to noon, and from 1 to 3 p.m., Monday through Friday. Copies of information in the docket may be obtained by request from the Air Docket by calling (202) 260-7548. A reasonable fee may be charged for copying docket materials.