



# Environmental Fact Sheet

## Statement of Principles for Small Handheld Gasoline Engines

*EPA and state and industry representatives have agreed to the structure for a Phase 2 program for small handheld gasoline engines. This agreement includes standards that represent a 30 percent reduction in hydrocarbon (HC) + oxides of nitrogen (NO<sub>x</sub>) emissions below Phase 1 levels.*

### Current Standards

In June 1995, the Environmental Protection Agency (EPA) finalized the first national regulations affecting small gasoline-powered engines used primarily in lawn and garden equipment. These regulations, commonly known as "Phase 1," take effect for new engines beginning in 1997. These new standards are expected to result in a 32 percent reduction in HC emissions.

### Regulatory Negotiations

In September 1993, a Negotiated Rule-making Advisory Committee was formed to support EPA in developing a practical approach to a comprehensive regulatory program for Phase 2 control of air emissions from these engines. This committee met until February 1996, but did not reach consensus on an Agreement in Principle or draft regulatory language. The negotiations process generated much useful information, however, and provided EPA with input from all key players which will be helpful in developing the Phase 2 regulations.

### Statement of Principles

Subsequent to the regulatory negotiation process, some of the parties reached an agreement on many of the issues for the handheld side of the industry.

#### Signatories:

**APEMA  
EPA  
NAEDA  
PPEMA  
STAPPA/ALAPCO  
Wisconsin DNR**

That agreement is embodied in a Statement of Principles (SOP) for new spark-ignited engines below 19 kilowatts (25 horsepower) for use in handheld applications. Examples of equipment in this category include: trimmers, edgers, brush cutters, leaf blowers, leaf vacuums, chain saws, augers, and tillers.

In addition to EPA, the signatories of the SOP are: the Auger and Power Equipment

Manufacturers Association (APEMA); the North American Equipment Dealers Association (NAEDA); the Portable Power Equipment Manufacturers Association (PEEMA); the State and Territorial Air Pollution Program Administrators/Association of Local Air Pollution Control Officials (STAPPA/ALAPCO); and the Wisconsin Department of Natural Resources.

**Examples of affected equipment:**  
 augers • brush cutters •  
 chainsaws • edgers • leafblowers •  
 leaf vacuums • tillers • trimmers

**Elements of SOP**

This SOP, which will form the basis of the Phase 2 proposed rule for these engines, includes the following elements:

- Emission standards for HC + NOx, and carbon monoxide (CO) to be met over the lifetime of the engine (given in grams per kilowatt-hour):

Engine Class	HC+NOx	CO
III (<20 cubic cm)	210	805
IV (≥20 and < 50 cubic cm)	172	805
V (≥50 cubic cm)	116	603

These standards represent a 30 percent reduction in HC+NOx emissions below Phase 1 levels. This results in a total reduction of 49 percent below uncontrolled levels.

- Phased-in effective dates on a percentage of production basis from model year 2002 through model year 2005.
- A particulate matter and toxics test program to evaluate the levels of these pollutants.
- A voluntary program allowing manufacturers to display a special label identifying handheld engines that have HC+NOx certification levels substantially below the Phase 2 standards.
- Compliance provisions to ensure engines continue meeting the standards for the life of the engine, including: a certification program; a production line testing program; and an in-use testing program.

***These standards represent a 30 percent reduction in HC+NOx emissions below Phase 1 levels.***

- A technology review to assess the appropriateness of Phase 3 emission standards to be effective as early as 2007.

**For More Information**

For more information on this program, please contact the Office of Mobile Sources by writing to:

U.S. Environmental Protection Agency  
 National Vehicle and  
 Fuel Emissions Laboratory  
 2565 Plymouth Road  
 Ann Arbor, Michigan 48105

or call 313-668-4333.