

# Boating Pollution Prevention Tips

*Cleaner marine engines are now available to boaters. You can be more environmentally friendly by following a few tips when using your boat.*

## You Can Make a Difference in Preventing Marine Engine Pollution

Currently 12.5 million marine engines are operated in the United States. These marine engines are among the highest contributors of air pollution in many areas of the country. Pollution from marine engines produces ground-level ozone (smog), which irritates the respiratory system causing chest pain and lung inflammation. Ozone can also aggravate existing respiratory conditions such as asthma. Boaters can join many others who are working to make a difference in preventing pollution from marine engines.

## Improving the Marine Engine

The marine industry has been working to develop technology for a new generation of low emission, high performance engines. Recreational boaters will begin seeing this new generation of engines in coming years.

## Boaters Can Prevent Pollution

Even with the new technology, the cooperation of individual boaters is essential in the effort to improve air quality and prevent pollution. Boaters can make a difference that will help

protect the environment now and in the future by adopting the following practices:

- Limit engine operation at full throttle.
- Eliminate unnecessary idling.
- Avoid spilling gasoline.
- Use a gasoline container you can handle easily and hold securely.
- Pour slowly and smoothly.
- Use a funnel or a spout with an automatic stop device to prevent overfilling the gas tank.
- Close the vent on portable gas tanks when the engine is not in use or when the tank is stored.
- Transport and store gasoline out of direct sunlight in a cool, dry place.
- Use caution when pumping gasoline into a container at the gas station.
- Carefully measure the proper amounts of gasoline and oil when refueling.
- Follow the manufacturer's recommended maintenance schedule.
- Prepare engines properly for winter storage.
- Buy new, cleaner marine engines.

By combining these strategies, boaters can reduce pollution from marine engines and help improve air quality across the nation and protect public health.



This brochure was extracted from EPA factsheets EPA420-F-96-003, "Boating Pollution Prevention Tips," 1996, and EPA420-F-96-012, "Emission Standards for New Gasoline Marine Engines," 1996.

# Emission Standards for New Gasoline Marine Engines

*Working cooperatively with the marine industry, the Environmental Protection Agency (EPA) has issued regulations that will bring forth a new generation of marine engines featuring cleaner technology and providing better engine performance to boat owners. Controlling exhaust emissions from new gasoline spark-ignition (SI) marine engines will result in an unprecedented 75 percent reduction in hydrocarbon (HC) emissions from these engines by the year 2025.*

## Emissions from Marine Engines

Because states are finding it increasingly difficult to maintain the quality of air citizens have come to need and expect, efforts to improve air quality throughout the nation are shifting focus to controlling pollution from sources other than road vehicles and engines. Until recently, emissions from nonroad engines and vehicles have been essentially uncontrolled.

Of nonroad sources, EPA has determined that gasoline marine engines are one of the largest average contributors of hydrocarbon (HC) emissions. Of all categories of nonroad engines, recreational marine engines contribute

the second highest average level of HC exhaust emissions. Only small gasoline engines used in lawn and garden equipment emit higher levels on average.

Controlling emissions from these engines will help reduce adverse health and welfare impacts associated with ground-level ozone (smog).

## New Emission Standards Established

The gasoline marine final rule, published in August 1996, establishes emission standards for new SI gasoline marine engines. Covered by the rule are outboard engines and gasoline marine engines used in personal watercraft and jet boat applications.

Emission standards are not set for sterndrive and inboard engines due to the inherently clean nature that the technology of these engines provide. Boat engines currently in-use are not affected by this regulation.





## Cleaner and Better Performing Engines

The new generation of outboard and personal watercraft (OB/PWC) marine engines are over 75 percent cleaner than current marine engine technology. In addition to being more environmentally friendly, the new OB/PWC engine technology will provide boaters with many performance advantages. The engines will generally provide easier starting, faster acceleration, quicker throttle response, and a reduction in smoke, fumes and noise. Significant improvements in fuel economy could provide hundreds of dollars in fuel savings. Furthermore, the new fuel systems and engine designs will relieve boaters from the hassle of mixing fuel and oil. As an added benefit to the boat owner, the emissions performance of these new OB/PWC marine engines will be covered by a three-year or 200 hour warranty, more than double the warranty currently provided by most engine manufacturers.

## Responsibility of Current and Future Boat Owners

Boat owners are in no way responsible for making modifications to their current engines to meet the standards or subject to any penalties as a result of this rule.

EPA anticipates the price of the new technology OB/PWC engines to be slightly higher than the engines currently offered, but is confi-

dent that consumers will see this as affordable when compared to the performance advantages and improved fuel economy to be enjoyed by the boat owner from these improved engines.

## Effect on Boat Dealers

As with boat owners, boat dealers are not responsible for compliance with this regulation. Boat dealers are encouraged to be aware of this rule and understand the technological advancements expected of the future OB/PWC marine engines. Dealers will likely find it advantageous to have the ability to supply consumers with the performance advantages and potential fuel economy savings associated with the new generation of OB/PWC marine engines.

## For More Information

EPA encourages additional information be obtained electronically via the EPA internet server:

World Wide Web: <http://www.epa.gov/oms>

Information is also available by calling 734-214-4333 or writing to:

U.S. EPA  
Office of Mobile Sources  
2565 Plymouth Road  
Ann Arbor, Michigan 48105



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# Preventing Boat Engine Pollution

A guide to what you can do to prevent boat engine pollution from fouling the environment ...and your boating enjoyment.



RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
Office of Technical & Customer Assistance