



Frequently Asked Questions

Effect of Proposed Evaporative Emission Standards for Boat Owners

The U.S. Environmental Protection Agency (EPA) is proposing new evaporative emission standards for gasoline-fueled boats and personal watercraft. These proposed standards would require boat manufacturers to install evaporative emission controls or use low-emission fuel tanks on new boats produced in 2008 or later. These standards would require manufacturers to reduce their average evaporative emissions by about 80 percent. This fact sheet describes the proposed program and its expected impact on boat owners.

Why is EPA regulating marine fuel systems?

Gasoline fuel tanks used in boats emit over 100,000 tons of gasoline vapors each year across the United States. Most of these emissions occur either from permeation of the fuel through plastic fuel tanks and hoses, or as a result of heating of the fuel from normal daily temperature changes. These vapors contribute to the formation of smog and contain toxic compounds such as benzene. These impacts are described in more detail in "FAQ: Environmental Impacts of Recreational Vehicles and Other Nonroad Engines" (EPA420-F-01-030, September 2001).

Who is responsible for compliance?

The proposed regulations would apply to new boats produced in 2008 or later. It would be the responsibility of the boat manufacturer to make sure that each boat meets the new standards.

What is a boat owner required to do?

The proposed regulations would have no effect on existing boats, and when they go into effect, these regulations would have very little impact on boat owners. Since the proposed regulations are designed to reduce harmful air pollution, the most important thing for you to know as a boat owner is that you would not be allowed to disable any emission controls that were installed on your boat to comply with EPA regulations.

What technologies could be used to meet the new standards?

We identified several control options that manufacturers could use to reduce gasoline vapor emissions from boats. We expect that manufacturers would use a mixture of these technologies to comply on average with the standards.

Permeation emissions from plastic fuel tanks could be reduced by including a low permeability barrier to the fuel tanks. These barriers could take the form of surface treatments on the tanks or low permeability barriers could actually be molded into the walls of the fuel tank. Similar barrier strategies could be used to reduce permeation from hoses as well. In fact, some marine fuel hoses already have a low permeation barrier.

Some manufacturers may use pressurized fuel tanks to prevent fuel vapors from escaping through vent hoses. If a manufacturer designed its tank to vent only when the pressure within the tank was above one pound per square inch (psi), it would meet the proposed standard. This technology has been used previously in automobiles to reduce emissions. For comparison, typical automotive fuel tanks are often pressurized to 2 psi.

Manufacturers may also install rubber bladders within the tank to reduce or eliminate the volume of fuel vapors that is normally present in an uncontrolled fuel tank. Bladders are already being used in some boats today for safety purposes, as well as for their environmental benefits.

How much will these controls cost?

We estimate that it would cost a manufacturer about \$36 to comply with the proposed standards for a typical boat with a 30-gallon tank. However, the evaporative controls would save gasoline that would have otherwise evaporated from tank. For a typical boat with a 32-gallon tank, this could add up to 44 gallons of gasoline over the life of the boat. Both costs and savings would be larger for boats with larger fuel tanks.

How do these technologies affect safety?

Reducing evaporative emissions would reduce exposure to potentially harmful gasoline vapors; and in general, it should also reduce the risk of fires. Nevertheless, we are

working closely with the U.S. Coast Guard to ensure that the emission controls do not compromise the safety of the boats in any way.

How can I comment on the proposed rule?

We welcome your comments on the proposed rule. You may submit comments by sending an E-mail to mcnprm@epa.gov, or, for more detailed instructions on submitting written comments, please see the *Federal Register* notice. It is available from the EPA Air Docket by calling (202) 566-1742; please refer to Docket No. A-2000-02. In addition, you can access the *Federal Register* notice and related documents electronically on our Web page for recreational marine issues at: www.epa.gov/otaq/marinesi.htm.

Where can I get more information?

Keep an eye on our web page for more information and any developments. For further information, please contact Mike Samulski at:

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