

BOAT

Pennsylvania



Fall 1995
\$1.50

The Keystone State's Official Boating Magazine



Viewpoint

Reducing Pollution from Marine Engines



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In October 1994, the U. S. Environmental Protection Agency (EPA) announced a sweeping revision to the regulation of exhaust pollution from marine engines. A 1991 EPA study concluded that the exhaust from non-road engines such as marine engines, lawn and garden equipment, utility engines and farm and construction engines is a significant source of ozone and carbon monoxide pollution in many areas of the United States. The study determined that such non-road sources contribute up to 10 percent of the total summertime urban hydrocarbon (HC) emissions and 17 percent of summertime urban nitrous oxide emissions. Even though boat engines are a small part of the off-road engine use, they are the second highest contributors of HC emissions after lawn and garden equipment. The marine industry has recognized this contribution and has joined forces with the EPA to help reduce emissions.

Marine engine manufacturers have already significantly improved the efficiency and fuel economy of outboard engines over the past 25 years. They have reduced hydrocarbon emissions by 50 percent. The new rules seek to reduce these emissions an additional 75 percent. The industry has accepted the challenge to overcome this huge technological and environmental challenge. They will begin, over the next nine years, to introduce engines that will be both environmentally friendly and user-friendly.

The next generation of marine engines will be easier to start, have improved performance, faster acceleration and produce less noise. Boaters will also save hundreds of dollars in fuel costs over the life of these engines. The industry estimates that the newer engines will use 30 percent less fuel for the same amount of boating. Many new engines will also eliminate the need to mix oil with the gasoline—no more guessing and over-oiling.

These improvements will occur only as the newer engines are marketed and placed into use. What about those 12 million engines that are currently in use? The industry hopes to develop an incentive program to encourage scrapping old engines. However, until then, we can do many things to lessen the effect of our boating on the environment. We can choose when and how long to operate boats. We can make certain that our engines are always well-tuned. We can control the time we operate our boats at full throttle. We can eliminate unnecessary idling.

Following certain simple precautions can also reduce evaporative hydrocarbon pollution. Be careful not to overfill gas tanks. Remember that cold gas from an in-ground tank expands when placed in a warmer boat tank. Never fill a tank to the top. We should fill portable tanks on land or on a solid dock to reduce the chance of spills. The vent on portable tanks should be closed when not in use or when we store the tank. Lastly, we must carefully measure the proper amounts of fuel and oil. An improper mixture can lead to increased HC pollution. It can lead to misfiring and poor performance of your engine. More is not better. Use the right amount of oil each time.

Clean air and clean water are everybody's responsibility. Government and industry will work together to ensure that the technology exists to protect our waterways from pollution for our enjoyment and that of future generations. You can do your part today by following these simple yet effective ways to reduce pollution.

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Boat Pennsylvania (ISSN0888-1561) is published quarterly by the Pennsylvania Fish & Boat Commission, 3532 Walnut Street, Harrisburg, PA 17109. ©1995. Nothing in this magazine may be reprinted without the written permission of the Pennsylvania Fish & Boat Commission. Subscription rates: one year, \$6; single copies are \$1.50 each. Second class postage is paid at Harrisburg, PA. **POSTMASTER:** Send address changes to: *Boat PA Circulation*, Pennsylvania Fish & Boat Commission, P.O. Box 67000, Harrisburg, PA 17106-7000. For subscription and change of address, use above address. Please allow three months for processing new subscriptions, renewals and changes of address. Send all other correspondence to: The Editor, *Boat Pennsylvania*, P.O. Box 67000, Harrisburg, PA 17106-7000. Editorial queries and contributions are welcome, but must be accompanied by self-addressed, stamped envelopes. Material accepted for publication is subject to Pennsylvania Fish & Boat Commission standards and requirements for editing and revising. Submissions are handled carefully, but the publisher assumes no responsibility for the return or safety of submissions in his possession or in transit. The authors' views, ideas and advice expressed in this magazine do not necessarily reflect the opinion or official position of the Pennsylvania Fish & Boat Commission or its staff. The Pennsylvania Fish & Boat Commission receives federal aid in sport fish restoration. Under appropriate federal acts, the U. S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, age, sex or handicap. If you believe that you have been discriminated against in any program, activity, or facility as described above, or if you desire more information, please write to: The Office of Equal Opportunity, Department of the Interior, Washington, DC 20240.

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The paddler on this issue's front cover was photographed by Bud Journey. The boating family on the back cover was photographed by Dan Martin.

Technology can be pretty amazing. See how incredible it can be for boats, electronics aboard and navigation in the article beginning on page 8. Paddlers will want to check out the detailed list of canoeing accessories, beginning on page 4, and the specifics of what's in an expert canoeist's tool kit, on page 24. Also check out the universal river signals, on page 14.

Does your boat have power trim? Understand this common accessory with the information provided on page 20. Similarly, the shape of your boat's hull has a lot to do with your gasoline use and how comfortable—or uncomfortable—your ride is. Let the information on page 10 help you examine your boat's hull more closely.

If you water ski, consider how you're going to winterize your equipment, on page 15, and all boaters should read the article on river rules, beginning on page 22. Lastly, the biennial *Boat Pennsylvania* subject index appears for your reference on page 12.—*Art Michaels, Chief, Magazines and Publications.*

