



Environmental Fact Sheet

Frequently Asked Questions: Emission Standards for Off-Highway Motorcycles

In September 2001, the U.S. Environmental Protection Agency (EPA) published a Notice of Proposed Rulemaking (NPRM) to seek public comment on our plan to propose more stringent emission standards for engines on equipment including forklifts and generators, and vehicles including snowmobiles, off-highway motorcycles and ATVs, and recreational marine boats. This information sheet addresses common questions we have heard from concerned off-highway motorcycle owners.

Why is EPA looking at new emission controls for off-highway motorcycles?

Our analysis shows that off-highway motorcycles emit more than 134,000 tons of hydrocarbons (HC), 181,000 tons of carbon monoxide (CO), and 1,000 tons of oxides of nitrogen (NO_x) each year across the United States. These emissions help form smog and contain toxic compounds such as benzene, so reducing them would benefit our health and environment. The Clean Air Act requires us to set emission standards that address these problems. These impacts are described in more detail in "FAQ: Environmental Impacts of Recreational Vehicles and Other Nonroad Engines" [EPA420-F-01-030].

Must the off-highway motorcycle I own meet these regulations?

No. Off-highway motorcycle manufacturers must ensure each **new** off-highway motorcycle sold meets our regulations. The proposed regulations would apply only to new off-highway motorcycles produced after a specified model year. Anything manufactured before that model year would not be affected and would remain legal to own and operate. We usually allow several years of lead time between publication of a final rule and the effective date of new standards. Thus, new standards for off-highway motorcycles won't affect the off-highway motorcycle you bought before this year or any off-highway motorcycle you buy for the next several years.

As an off-highway motorcycle owner what must I do?

You may **not** disable any emission controls installed on your off-highway motorcycle to meet our regulations. Manufacturers will explain in their owner's manual what type of emission controls exist for each model. Manufacturers may also specify some minor maintenance you must have done to keep emission controls working properly over the life of the off-highway motorcycle.

What kind of emission controls is EPA considering?

We are proposing standards that manufacturers would meet on an average basis, which may encourage manufacturers to use a broader array of technologies across their product line. We don't specify what emission controls manufacturers must use to comply with the regulations, but we anticipate many manufacturers will choose to meet them by using four-stroke engines instead of two-stroke engines. Some manufacturers may also slightly change the air-fuel mixture. Others may decide to use a technology such as advanced fuel injection or catalytic converters on some models to meet regulations.

How much will these controls cost?

Your cost for emission controls depends on the control used, manufacturing processes, the size of the manufacturer, and other issues. Many off-highway motorcycle models are already equipped with four-stroke engines, and we estimate the cost for these models to be less than \$30.

We estimate the cost to replace a two-stroke engine with a four-stroke engine is about \$220 to \$360 depending on engine size. But, with a four-stroke engine, you are likely to recoup a large portion of this cost over the life of your motorcycle because a four-stroke engine consumes approximately 25% less fuel and much less oil than a two-stroke engine. Four-stroke engines are also more durable, so major repairs are less frequent.

How will these controls affect performance and safety?

We don't expect the controls to harm performance or safety. Manufacturers have advanced off-highway motorcycle designs over the last few years, so four-stroke engines now perform as well as - possibly better than - two-stroke engines. Also, manufacturers will have several years of lead-time to perfect designs. None of the emission controls we are considering affect safety.

Will these regulations affect where I can ride my off-highway motorcycle?

No. The proposed regulations don't restrict your use. They cover only the exhaust emissions from your new off-highway motorcycle.

Is EPA regulating competition motorcycles?

No. The Clean Air Act excludes from emissions control programs vehicles used solely for competition. We recognize that organized amateur off-highway motorcycle competition is popular around the country. We are proposing provisions that will allow manufacturers to make and sell competition motorcycles that do not meet emissions requirements. Also, riders may modify off-highway motorcycles that are used solely for competition.

Will EPA publish noise regulations?

We are not proposing any new noise regulations. Most off-highway motorcycle manufacturers design products that already meet noise standards, but we do ask for comment on whether we should revise these noise standards.

Where can I get more information?

Keep an eye on our web page for recreational vehicles (<http://www.epa.gov/otaq/recveh.htm>) for more information and any developments. You may comment on the issues in this fact sheet or in the Notice of Proposed Rulemaking (NPRM) by sending an email to nranprm@epa.gov.

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