



Regulatory Announcement

Proposed “Tier 2” Emission Standards for Vehicles and Gasoline Sulfur Standards for Refineries

The U.S. Environmental Protection Agency (EPA) is proposing a major program to significantly reduce emissions from cars and light trucks, including sport utility vehicles (SUVs), minivans, and pickup trucks. Under this proposal, automakers would sell cleaner cars, and refineries would make cleaner gasoline—with a lower sulfur content—to fuel those cars and light trucks nationwide. This comprehensive program will reduce the harmful health and environmental effects of ozone and particulate matter.

Historical Background

The Clean Air Act set previous tailpipe emission standards (known as “Tier 1 standards”) for cars and light trucks, beginning with the 1994 model year. The Act required EPA to study whether further emission reductions (in the form of “Tier 2 standards”) from



these vehicles are necessary. These standards could not take effect before the 2004 model year. Under the Tier 1 standards, heavier vehicles, including SUVs, minivans and pickup trucks, pollute three to five times more than cars.

EPA submitted the Tier 2 Report to Congress in July 1998. The Agency concluded that more stringent vehicle standards are needed to meet the ozone and particulate matter air quality standards, and that technology would be available to meet such standards cost-effectively.

Highlights of Proposed Rule

Under this proposal, sport utility vehicles, minivans, and pickup trucks will, for the first time, meet the same protective standards as passenger cars. This is a comprehensive initiative that treats vehicles and fuels as a system. Since sulfur degrades a vehicle's emission control system, low-sulfur gasoline is needed to enable the use of emission control technologies. EPA is issuing this proposal now to allow adequate lead time for car manufacturers and oil refiners to begin achieving the new standards for the 2004 vehicle model year.

Vehicles

Under the proposed standards, beginning in 2004, manufacturers would start producing passenger cars that are 77 percent cleaner than those on the road today. Light-duty trucks, such as SUVs, which now are subject to standards that are less protective than those for cars, would be as much as 95 percent cleaner under the new standards.

For the first time, through a phase-in, the same exhaust emission standards would apply to cars, sport utility vehicles, minivans, and pickup trucks. These larger vehicles make up nearly half of all passenger vehicles sold, and typically have higher emissions than cars. The same emission standards would apply to all vehicles, regardless of the type of fuel they use. That is, vehicles fueled by gasoline, diesel, or alternative fuels (such as methanol or natural gas) all must meet the same standards.



The program also includes more stringent particulate matter (PM) standards, primarily affecting diesel-fueled vehicles, as well as more stringent evaporative emission standards, reducing emissions of volatile organic compounds, a key ingredient in ozone. This program builds on the recent technology improvements resulting from the successful National Low Emission Vehicle (NLEV) program, and improves performance of these vehicles through low sulfur gasoline.

Proposed Vehicle Emission Standards

- The proposed tailpipe standards would be set at an average standard of 0.07 grams per mile (gpm) for oxides of nitrogen (NOx) for all classes of passenger vehicles, including light-duty trucks, such as the largest SUVs. Vehicles weighing less than 6000 pounds would be phased-in to this standard between 2004 and 2007.
- For the heaviest light-duty trucks, the proposal provides a three-step approach to reducing emissions. In 2004, we would implement the most stringent standards to date not to exceed 0.6 gpm—more than a 60 percent reduction from current standards. To ensure further progress, these vehicles would be required to achieve an interim standard of 0.2 gpm to be phased-in between 2004-2007. In the final step, 50 percent of these vehicles would meet the 0.07 standard in 2008, and the remaining 50 percent will comply in 2009.

Gasoline

Sulfur in gasoline reduces the effectiveness of a vehicle's emission control system. Therefore, low-sulfur gasoline is needed to effectively reduce pollution.

Proposed Sulfur Levels in Gasoline

- The nation's refiners would meet an average sulfur level of 30 parts per million (ppm) by 2004, down from the current average of more than 300 ppm. The maximum amount of sulfur in gasoline, for purposes of averaging, would be capped at 80 ppm, after a three-year phase-in.
- Small refiners would have an additional four years to comply, with the opportunity of an extension for those that can demonstrate a severe economic hardship.



Health and Environmental Benefits

Without significant new controls on motor vehicle emissions, millions of Americans will continue to breathe unhealthy air. The Tier 2 emission standards and lower-sulfur gasoline would help all Americans breathe cleaner air. The emission reductions from this program would provide much-needed assistance to states facing ozone and PM air pollution problems. When fully implemented in 2030, the proposed tailpipe standards would significantly reduce NO_x emissions from vehicles by about 74 percent. The proposed standards also would reduce emissions of particulate matter, or soot, from vehicles by about 84 percent.

Ozone causes a range of health problems related to breathing, including chest pain, coughing, and shortness of breath. PM can reach the deepest part of the lungs and cause increased emergency room visits, increased respiratory symptoms and disease, and even premature death. Exposure to both ozone and PM poses the greatest risk to children and the elderly. In addition, ozone, NO_x, and PM adversely affect the environment in various ways, including crop damage, acid rain, and reduced visibility.

Flexibility for Industry

EPA designed its proposal in close consultation with the auto and oil industries, emissions control manufacturers, the states, and public health, consumer and environmental groups. As a result, EPA has included several measures to ensure maximum flexibility and cost-effectiveness for these industries. These flexibilities include:

- 1) allowing averaging to meet both the car emission and gasoline sulfur standards;
- 2) allowing extra time for larger SUVs and smaller refiners to meet their respective standards; and
- 3) allowing for a market-based credit trading-and-banking system for both industries to reward those who lead the way in reducing pollution.

Costs of Program

The significant environmental benefits of this program would come at an average cost increase of less than \$100 per car and less than \$200 per light-truck. Consumers would pay less than 2 cents per gallon more for gasoline, or about \$100 more over the life of an average vehicle.

Public Participation Opportunities

We welcome public comment on this proposed program from all interested parties. The proposed rule and related documents are available electronically via EPA's Tier 2 Internet site at:

<http://www.epa.gov/oms/tr2home.htm>

Public Hearings

We will hold four public hearings on this proposal:

- (1) June 9 and 10 in Philadelphia, Pennsylvania
- (2) June 11 in Atlanta, Georgia
- (3) June 15 in Denver, Colorado
- (4) June 17 in Cleveland, Ohio

Additional information about the hearings will be printed in the *Federal Register* and is available on the Tier 2 Internet home page.

Written Comments

You may submit written comments to EPA up to 45 days after the last public hearing. For instructions on submitting written comments, please see the *Federal Register* notice. It is available from several sources including the EPA Air and Radiation Docket at (202) 260-7548; please refer to Docket No. A-97-10.



Telephone Comments

A toll-free telephone line to submit public comment is available at 1-888-TELL-EPA (1-888-835-5372). The telephone system will receive comments 24 hours a day, seven days a week. Callers should listen to the instructions and leave a message (up to two minutes long) that will be recorded, transcribed and included in the official docket.

E-mail Comments

EPA has set up an e-mail address to accept comments on the proposal: tier2.comments@epa.gov
E-mail comments can also be submitted from the Tier 2 Internet home page. Comments received by telephone and e-mail will have the same legal standing as written comments and testimony at public hearings.

For More Information

Additional documents on the proposed rule are available electronically at the Internet site listed above, or by contacting:

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