

Cleaner Cars + Cleaner Fuel = Cleaner, Healthier Air

An Overview of the Tier 3 Standards

On March 3, 2014, the Environmental Protection Agency (EPA) finalized standards to reduce pollution from gasoline-powered cars and trucks. A diverse coalition of industry, public health, environmental, labor, faith-, and science-based organizations representing millions of Americans supported these cleaner gasoline and vehicles standards—known as the Tier 3 standards—because they will reduce air pollution, save lives, and create thousands of new jobs.

Addressing Vehicle and Fuel as One System

The Tier 3 standards treat the fuel and engine as a single system to be regulated together. This system approach results in more efficient and economical vehicle emissions reductions than could be achieved if the fuel and engine were regulated separately. The system approach has been successfully implemented in previous fuel and vehicle rules including the Tier 2 rule for cars, light trucks, and sport utility vehicles, and diesel rules for trucks and buses, construction and other non-road engines, and locomotive and marine diesel engines.

Under the system approach, sulfur levels in fuel are reduced to allow for the introduction of improved catalyst technologies



A child uses an inhaler to control asthma symptoms. Exhaust from cars and trucks can exacerbate asthma in children.

into the market. In 2017, Tier 3 will reduce the sulfur content of gasoline from 30 parts per million (ppm) to 10 ppm. Since sulfur degrades the effectiveness of catalysts, lowering sulfur content will immediately enhance the performance of these key emissions reduction technologies in the existing passenger fleet.

Tier 3 also tightens tailpipe standards for soot, smog, and toxic emissions. The new tailpipe standards require an 80 percent reduction in fleet average smog-forming non-methane organic gases and nitrogen oxides (NO_x) compared with the Tier 2 standards. Individual vehicles are required to emit 70 percent less particulate matter (or soot).

Cleaner Air and Healthier Communities

As of 2010, more than one in three Americans lived in areas where air pollution levels exceed at least one federal health standard, and vehicles are a major part of the problem. Passenger vehicles remain the United States' second-largest emitters of NO_x and volatile organic compounds—the primary pollutants that form smog. These vehicles also emit more than half of all carbon monoxide pollution and contribute to particulate matter emissions (EPA 2012). Controlling smog-forming and soot pollution from passenger vehicles is key to reducing the health impacts of poor air quality, including asthma attacks, respiratory problems, and premature death.

The sulfur reductions required under Tier 3 are consistent with the global trend to reduce sulfur in gasoline. Refiners are already producing ultra-low-sulfur fuel in California and much of the developed world. In 2012, the International Fuel Quality Center ranked the top 100 countries based on sulfur limits in gasoline; the United States, at its current level of 30 ppm, is ranked forty-seventh, behind Japan, South Korea, Turkey, Taiwan, Thailand, Chile, and all of Europe. Decreasing sulfur content will improve the performance of emissions control technologies in vehicles currently on the road, reducing emissions of NO_x from these vehicles by approximately 260,000 tons in 2018 (EPA 2014).

Reducing pollution from cars and trucks will prevent up to 2,000 premature deaths, 2,200 hospital admissions, and 29,000 asthma attacks each year by 2030 (EPA 2014b). Additionally, in 2030 these health benefits will have a dollar value between \$6.7 billion and \$19 billion annually (EPA 2014b).

Cleaner Air Means More American Jobs

These new standards will not only bring cleaner air, but also create more jobs as emissions control equipment manufacturers develop new technologies to meet the stricter targets. In 2010 alone, the emissions control industry generated \$12 billion of economic activity and accounted for 65,000 U.S. jobs, mostly in manufacturing (MECA 2012).

Additionally, a study by Navigant Economics estimated that implementation of the cleaner-fuel portion of the Tier 3 standard will create almost 5,300 permanent jobs in the operation and maintenance of new refining equipment, as well as more than 24,000 new jobs over a three-year period for equipment installation at the nation's refineries (Navigant 2012).

Big Benefits, Small Cost

Oil companies and their allies in Congress worked hard to stop these standards, even making misleading and discredited claims about the impact these standards will have on consumers. In fact, a study by the National Association of Clean Air Agencies found that these standards would cost less than a penny per gallon of gasoline (NACAA 2011). Additionally, the Navigant Economics study found that the cost of complying with Tier 3 for U.S. refiners is roughly a penny per gallon, and further stated that, "This expression of the compliance costs on a cents per gallon basis does not imply that these compliance costs will be passed through fully to consumers" (Navigant 2012). In the final rule, the EPA stated that the standard would cost less than a penny per gallon, and approximately \$72 per vehicle (EPA 2014).

Despite its claims, the oil industry ultimately stood alone in

opposition to Tier 3. A diverse coalition of industry, public health, environmental, labor, faith-, and science-based organizations continue to support Tier 3—a smart policy that is good for the environment, our health, and our economy.

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