

BENEFITS OVERVIEW

The Clean Buses for Kids Program is providing funding to school districts and other eligible public entities to purchase and install diesel particulate filters on their school buses. The filters reduce pollutant emissions in the bus exhaust, including soot and smoke. The Program is also providing a fuel subsidy to offset the increased costs of using ultra-low sulfur diesel (ULSD), which must be used in buses that have been retrofitted with filters.

Funding for the Program was provided by Toyota Motor Company in connection with the settlement of an enforcement action, *United States v. Toyota Motor Corporation*, brought on behalf of the U.S. Environmental Protection Agency under the Clean Air Act. The Program is being run by an independent administrator.

What the Program Offers

The Program provides funding to:

- Purchase and install approved models of diesel particulate filters on eligible school buses. The Program is providing 100% of these costs. The Program will reimburse the school district for the purchase and installation costs or, at the direction of the school district, will pay the vendor directly.
- Offset the cost of using ultra-low sulfur diesel fuel (ULSD). Buses that have been retrofitted with diesel particulate filters must be operated with ULSD. In most cases, the fuel subsidy of \$350 per retrofitted bus should cover the incremental cost of ULSD through June 2006. Starting in June 2006, ULSD will be available nationwide, in fact, nearly **all** highway diesel fuel produced in the U.S. will be ULSD by June 2006.

The Program is also providing technical assistance to help school districts procure the filters.

School District Responsibilities

The school districts and other public entities participating in the Program are required to do the following:

- Complete a Program application. The Program provides technical assistance for completing the application. The application must list the filters that will be installed and the buses on which they will be installed.
- Contract with a vendor and have the filters installed, as described in the application.
- Use ULSD in the buses that have been retrofitted with filters.
- Maintain the filters in good working condition, including an annual cleaning, for at least four years.
- Provide documentation to the Program that the filters were installed. Payment will not be made until complete documentation is received.
- Adopt (and provide documentation of) an anti-idling program (or other emission reduction program) to reduce air pollution emissions.
- Report to the Program annually for four years on the status of the filters.

A description of the Program, including the details on these requirements, is at www.cleanbusesforkids.com.

School District Costs

The school districts or other public entities participating in the Program are responsible for the costs of maintaining the filters and for reporting annually to the Program. The maintenance requirements are expected to be limited to annual filter cleanings that involve blowing out the filter with compressed air. In some circumstances, the filter must be removed and 'baked' in a high-temperature unit to burn out particulates. The Program requires that the filter manufacturers provide a warranty on the filters.

ULSD must be used in the buses that have the filters. The fuel subsidy of \$350 per bus should cover the additional cost of this fuel until it becomes the standard on-road diesel fuel in June 2006. If the incremental cost of the fuel exceeds this amount, it is the responsibility of the school district.

Benefits to Your Community

The diesel particulate filters installed with funding from this Program will reduce pollution emissions from your school buses. Reducing these emissions will not only contribute to cleaner air in your community, it will also help protect the health of students who ride the buses and others who are exposed to the bus exhaust.

Diesel exhaust contains tiny particles, known as particulate matter, as well as pollutants that contribute to smog and haze. Exposure to diesel exhaust, particularly by children, causes health problems and aggravates existing respiratory diseases such as asthma. School absenteeism has been linked to exposure to diesel exhaust due to its relationship to asthma.¹

Recognizing these health impacts, the U.S. Environmental Protection Agency (EPA) is requiring: (1) ultra-low sulfur diesel fuel will be the standard on-road diesel fuel produced in the U.S. starting in June 2006; and (2) new heavy-duty diesel buses must include advanced pollution control systems that significantly reduce emissions up to 95 percent starting in 2007. *Existing buses* will not be covered by this new emissions control requirement. One of the most effective ways to reduce emissions from your fleet of existing school buses is to install diesel particulate filters. Because existing buses are expected to operate for many years to come, the EPA, states, and communities are working to promote the voluntary retrofit of existing buses. This Program supports this goal.

While there is no recognized safe level of exposure to particulates from diesel engine exhaust, retrofitting an existing heavy-duty diesel engine with a particulate filter and operating it with ULSD can reduce particulate emissions by 85 percent. *Reducing these emissions will be of particular benefit to children because children are more susceptible to air pollution than healthy adults.* Their respiratory systems are still developing and they breathe faster, increasing the relative amount of harmful pollutants inhaled.

In addition to the direct health benefits of reduced emissions, retrofitting existing school buses helps promote clean air, as emissions of two important contributors to smog are also reduced: carbon monoxide (75 percent reduction) and hydrocarbons (85 percent reduction). Overall, emissions from a retrofitted school bus are expected to be reduced by nearly 350 pounds during four years of typical use.² The filters and buses can be expected to last for many more years, so the emission reduction benefits will be, in fact, much larger.

The Clean Buses for Kids program helps school districts afford this cleaner technology. By participating in the Program, *you* can help reduce diesel emissions that directly affect your school children and the community. For more information, please visit the Program website at www.cleanbusesforkids.com.

Health Risks of Exposure to Diesel Engine Exhaust

Short-Term Exposure Effects:

- Eye, throat, and lung irritation
- Nausea
- Lightheadedness
- Cough
- Exacerbation of asthma, bronchitis, and pneumonia symptoms

Long-Term Exposure Effects:

- Lung cancer risk
- Decreased lung function
- Retarded lung development
- Other respiratory damage

Source: "Health Assessment Document for Diesel Engine Exhaust." U.S. Environmental Protection Agency, Office of Research and Development, National Center for Environmental Assessment, Washington, DC, EPA/600/8-90/057F, 2002.

¹ H Park, B Lee, EH Ha, JT Lee, H Kim, YC Hong. "Association of air pollution with school absenteeism due to illness," *Archives of Pediatrics and Adolescent Medicine*, Vol. 156, 12 (2002): 1235–1239.

² Emission reductions calculated using U.S. EPA's Mobile Source Emission Factors Model, MOBILE6.2, and using the California Air Resources Board specifications for diesel particulate filters – 85% reduction in PM and hydrocarbons (same as VOCs) and 75% reduction in CO. MOBILE6.2 inputs assumed a mix of 1994 through 2001 buses traveling 10,000 miles per year over the four-year life of the Program.