



Massachusetts
Department
of
ENVIRONMENTAL
PROTECTION

Engine Idling Guidance for School Bus Drivers

School bus drivers face challenges every day – safely navigating through traffic and distracted drivers around you, driving through extreme weather conditions when necessary, operating a commercial motor vehicle and complying with various regulations – all the while striving to keep their precious cargo, our children, safe and secure. Your commitment is both recognized and commended!

Anti-idling laws and regulations provide another approach to protect the health of our children and to improve air quality for everyone by eliminating unnecessary engine idling. The exhaust from engines that run on fossil fuel and the internal combustion process, gasoline- or diesel-powered, contain pollutants that adversely affect public health. Hydrocarbons, carbon monoxide, oxides of nitrogen and fine particulate matter contribute to ground-level ozone and haze. Breathing these and other chemicals in the exhaust can trigger asthma attacks and contribute to more serious health problems. And it is worse for children. Because their bodies are smaller, they proportionally breathe more of these pollutants than an adult. Reducing this exposure as much as possible is in everyone's best interests.

Developed in 1972, Massachusetts has one of the oldest laws and regulations in the United States to reduce unnecessary engine idling. Massachusetts General Law (MGL) Chapter 90, Section 16A and 310 Commonwealth of Massachusetts Regulation (CMR) 7.11 restrict unnecessary engine idling to no more than five minutes. The purpose of this law and regulation is to prevent **unnecessary** idling. Even greater air quality and health benefits are achieved if idling is kept to less than five minutes. If you do not **need** to run the engine, regardless of how many minutes you have been parked, don't idle. Shut it down right away!

To further protect our children from unnecessary idling, in 2008, MGL Chapter 90, Section 16B and 540 CMR 27.00 were added. The goal of this law and regulation is clear, "To Improve School Campus Air Quality," and they established additional restrictions on how long you can let your engine idle within school zones.

The best practice to comply with both laws and regulations is to shut your engine down as soon as you arrive at a school, especially if you arrive early to pick up the children at dismissal. Run your flashing lights off the battery power rather than the engine and start the engine when you are ready to drive away. As a professional driver, you may be aware of special circumstances and the condition of your bus that would make engine idling **necessary**, such as operating a wheel chair lift, or running the defroster to warm the windshield if it's a day with freezing rain. But most days and under most circumstance, you should be able to shut down the engine when you are parked to load or unload your passengers, and start the engine when you are loaded or empty and ready to drive away.

If you are transporting special needs children, such as those with wheelchairs, your engine should be shut down until you are actually operating the wheelchair lift, not left running for periods before or after that operation. If it's cool outside, wear a sweater; if it is warm outside, open the windows. In fact, air monitoring has shown

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time and time again that idling engines, yours and those around you, contribute to high concentrations **within** the bus with the windows closed. Even with the air conditioning running, if your bus is so equipped, unhealthy levels of pollutants can build up inside the bus in the midst of idling vehicles while you're parked because there is no air movement to help clear the air.

You may be concerned about compromising the engine by shutting down and starting up multiple times a day, so here are some points of clarification. Turbo-charged diesel engines, which include almost all modern diesels, require a cool-down period after a lengthy full-load operation. The OEMs (original engine manufacturers) do not consider stop and go driving a full load operation and do not require the cool down period, usually three to five minutes.

Fleet managers of large transportation operations with strict anti-idling policies have reported, when asked, that they do not "burn out" starter motors sooner with repeated daily engine shut-downs. And OEMs design and build starter motors to last hundreds of thousands of miles before they need repair or replacement.

In fact, extensive engine idling can easily do more damage to the engine than frequent starting and stopping. Engines run cooler than normal operating temperature when at idle. The cooler temperatures prevent efficient fuel combustion and promote the development of hydrocarbons and other "gunk" that can score the pistons and increase air pollution. If you have ever seen a taxi pull away from a stop with a cloud of blue smoke coming from the tailpipe, you have seen the effect of long-term idling.

As a professional driver, you have an increased awareness of your vehicle and your passengers. One of the best ways to improve the immediate environment for children, parents, teachers and your fellow drivers around the schools, and to reduce the wear-and-tear on your bus, is to not let your engine idle any longer than absolutely necessary. Understanding why it matters helps. Thank you again for all you do to help keep our children safe and healthy!

Website Links For Additional Idling information:

MassDEP: <https://www.mass.gov/guides/transportation-air-quality#-engine-idling-reduction->

RMV: <https://www.mass.gov/regulations/540-CMR-27-regulation-of-motor-vehicle-idling-on-school-grounds>