

AIR

Diesel Idle Reduction

Unnecessary diesel vehicle idling pollutes the air, wastes fuel, and causes excess engine wear. Fortunately, it's easy to implement practices that reduce idling.

Reduce Pollution

Idling vehicles can pollute air in and around the vehicle. Exhaust from vehicles can also enter buildings through air intakes, doors, and open windows. Diesel exhaust from excessive idling can be a health concern. Read more about health concerns.



Reduce idling time - the Savings add up!!

If...

- A fleet has 100 vehicles,
- A fleet reduces idling time by 30 minutes per vehicle per day,
- A typical vehicle uses a half gallon of diesel fuel per hour of idling,
- Diesel fuel costs \$3.75 per gallon,
- Then what are the annual savings?
- Fuel cost = 100 vehicles x 0.5 hr/day x 0.5 gallons of fuel/hr x \$3.75 per gallon x 180 days
- SAVINGS = 4,500 gallons of saved fuel and \$16,875!!

Based on formula estimates by U.S. EPA, Clean School Bus USA

Wasted Fuel and Money

Idling vehicles waste fuel and money. When idling, a typical diesel engine burns approximately half a gallon of fuel per hour. Eliminating unnecessary idling can save significant dollars in fuel costs each year.

Engine Wear-and-Tear

Diesel engines do not need to idle more than a few minutes to warm up. In fact extended idling causes engine damage. Engine manufacturers generally recommend no more than three to five minutes of idling. Caterpillar Inc. cautions drivers to "...Avoid excess idling. If the vehicle is parked for more than five minutes, stop the engine. Excessive idling can cause carbon buildup and/or excessive idling can cause the engine to slobber. This is harmful to the engine." IC Corporation's engine manual states that "...Excessive idling reduces fuel economy, and may decrease oil life."

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Anti-idling strategies:

- Reduce early morning idling time to limit exhaust build up in vehicles
- Designate an area inside for drivers to wait if they arrive early
- Position vehicles away from air intake vents so pollution does not accumulate in the building
- Change bus circuit configuration to run lights and heating/cooling off the battery
- Limit caravanning - position vehicles so tailpipes do not blow directly towards another vehicle
- Encourage children to sit near the front of buses when not full



Idling Myths

Myth: It's important to warm up the engine with a long idle period, especially in cold weather.

Fact: With today's diesel engines, manufacturers routinely suggest a warm up time of less than five minutes. In fact, running an engine at low speed (idling) causes significantly more wear on internal parts compared to driving at regular speeds.

Myth: It's better for an engine to run at low speed (idling) than to run at regular speeds.

Fact: Running an engine at low speed causes twice the wear on internal parts compared to driving at regular speeds.

Myth: The engine must be kept running in order to operate the school bus safety equipment (flashing lights, stop sign). It's impossible to run this equipment off the internal circuitry of the bus because the battery will run down.

Fact: Safety equipment can be operated without the engine running through re-wired circuitry for up to an hour with no ill-effects on the electrical system of the bus.

Myth: Idling is necessary to keep the cabin comfortable.

Fact: Depending on the weather, many vehicles will maintain a comfortable interior temperature for a while without idling. Idling is also not an efficient way to keep the cabin warm. Routes should be timed so riders and drivers do not need to spend a lot of extra time when it is not en route, particularly in hot or cold weather. In addition, auxiliary heaters can be purchased and installed to keep the cabin comfortable.

Myth: It's better to just leave the engine idling because a "cold start" produces more pollution.

Fact: A recent EPA study found that the emission pulse measured after a school bus is restarted contains less carbon monoxide, nitrogen oxides, and other pollutants than if the school bus idled continuously over a 10-minute period. The analysis indicated that continuous idling for more than three minutes emitted more fine particle (soot) emissions than at restart.