

Engine Idling

Cars and SUV's release a number of air pollutants into the air that are detrimental to health. These include sulfur oxides (SOx), nitrogen oxides (NOx), volatile organic compounds (VOCs), particulate matter (PM), carbon monoxide (CO) and toxics such as mercury. Besides direct effects on respiratory and cardiovascular health, some of these chemicals also combine in the atmosphere to produce acid rain and ground-level ozone or smog.

Why People Idle

There are many reasons why people idle their vehicles, such as to listen to the radio, convenience, parked illegally, or to keep the heat or air conditioning on. Another reason is because people often do not know the facts about idling, such as, ***10 seconds of idling uses more fuel than turning off the engine and restarting it.***

What is Idling?

An idling vehicle is basically one whose engine is running when it is parked or not in use. Market research has found that the most common reasons for engine idling are:

- warming up the car
- waiting for someone
- doing an errand

Other reasons, reported by drivers include:

- personal comfort
- listening to the radio
- parking illegally
- convenience

Why is idling a problem?

Vehicle idling is one of the biggest problems among today's drivers. What people often don't realize about idling is that it wastes money and natural resources; it can damage our vehicles, affect the environment, and harm our health.

Wastes Money & Natural Resources

- Ten seconds of idling can use more fuel than turning off the engine and restarting it. If you are stopped for more than 10 seconds - except in traffic - turn off your engine.
- Every hour of idling costs you at least 4/10 (0.4) of a gallon of gas - and up about 8/10 (0.8) of a gallon for an 8-cylinder engine.¹ It may not sound like much, but it all adds up!

Damages our Vehicles

Idling is not an effective way of warming up your engine, as your vehicle is made up of many moving parts. To properly warm your vehicle's transmission, tires, suspension, steering and wheel bearings, you need to slowly drive-off.

Effects the Environment

Keep in mind that every gallon of gas you use you produce about 19 pounds of carbon dioxide.

Harms our Health

- Children are particularly vulnerable to air pollution because they breathe faster than adults and inhale more air per pound of body weight.
- Many people believe that they are protected from air pollution if they remain inside their vehicles. Not so according to a report by the International Center for Technology Assessment (CTA). CTA found that exposure to most auto pollutants, including volatile organic compounds (VOCs) and carbon monoxide (CO), is much higher inside vehicles than at the road side. VOCs and CO are linked to serious health problems--like respiratory infections and cancer--are known to shorten life. The highest exposure occurs when sitting in traffic congestion on highways or in a line-up of idling vehicles at a school or drive-through.

Five-Step Action Plan

Save Money and Help Protect Our Environment

- Reduce warm-up idling to 30 seconds. Start driving after no more than 30 seconds of idling, assuming your vehicle's windows are clear. Avoid high speeds and rapid acceleration for the first five miles or so to allow all moving parts of your vehicle to warm up.
- If you are going to be stopped for more than 10 seconds, turn your engine off (except in traffic). Idling your vehicle for more than 10 seconds uses more fuel than it would take to restart your engine.
- Avoid using a remote car starter. These devices encourage you to start your vehicle before you are ready to leave, which means unnecessary idling.

Spread the word to your family and friends. Telling your family and friends about the benefits of not idling will help them save money and help protect the environment too.

Myth #1

The engine should be warmed up before driving.

Reality

True, the engine must be warmed up, but idling is not an effective way to warm up your vehicle, even in cold weather. The best way to do this is by driving the vehicle. With today's modern engines, and the advent of electronic engines, you need no more than about 30 seconds of idling before driving away, even on the coldest winter days.

Myth #2

Idling is good for your engine.

Reality

Excessive idling can actually damage your engine components, including cylinders, spark plugs, and exhaust systems. An idling engine is not operating at its peak temperature, which means that fuel does not undergo complete combustion. This leaves fuel residue that can condense on cylinder walls, where they can contaminate the oil and damage parts of the engine. For example, fuel residues are often deposited on spark plugs. As you spend more time idling, the average temperature of the spark plug drops. This makes the plug get dirty more quickly, which increases fuel consumption by four to five percent. Excessive

idling also lets water condense in the vehicle's exhaust, leading to corrosion and can reduce the life of the exhaust system.

Myth #3

Shutting off and restarting your vehicle is hard on the engine.

Reality

Frequently restarting has little impact on engine components like the battery and the starter motor. Component wear caused by restarting the engine is estimated to add \$10 per year to the cost of driving, money likely to be saved many times over due to fuel savings.

Myth #4

Shutting off and restarting your vehicle uses more gas than if you leave it running.

Reality

The bottom line is that over 10 seconds of idling uses more fuel than restarting the engine. As a rule of thumb, if you are going to stop for 10 seconds or more - except in traffic - turn off the engine. You'll save money, and you won't produce harmful Carbon Dioxide, the leading greenhouse gas.

IDLING CONTROL

Part 1

DEFINITIONS

1.1 Definitions

Idle - “idle” means the operation of the engine of a vehicle while the vehicle is not in motion and not being used to operate auxiliary equipment that is essential to the basic function of the vehicle and “idling” has a corresponding meaning.

Layover - “layover” means stopping at a point along a transit route for a maximum of fifteen (15) minutes to allow a transit vehicle to adjust to service schedules.

Medical Officer of Health - defined

“Medical Officer of Health” means the Medical Officer of Health for the Middlesex-London Health Unit or a person delegated by him or her for the purposes of this by-law.

Mobile workshop - defined

“mobile workshop” means (a) a vehicle containing equipment that must be operated inside or in association with the vehicle; or (b) a vehicle serving as a facility for taking measurements or making observations or conducting maintenance or construction operated by or on behalf of a municipality, public utility or police, fire, or ambulance service.

Stopover - defined

“stopover” means a scheduled delay of a maximum of fifteen (15) minutes at a transit vehicle terminal to allow transit vehicles to adjust service schedules.

Transit vehicle - defined

“transit vehicle” means London Transit Commission vehicles, paratransit vehicles, tour buses and motor coaches.

Vehicle - defined

“vehicle” means a motor vehicle, trailer, traction engine, farm tractor, or road building machine as defined in the *Highway Traffic Act*, and any vehicle drawn, propelled or driven by any kind of nonmuscular power but does not include cars or electric or diesel electric railways running exclusively upon rails.

Part 2

PROHIBITED MATTERS

2.1 Idling - more than 5 minutes - prohibited

No person shall cause or permit a vehicle to idle for more than five (5) consecutive minutes.

2.2 Exceptions - 5 minutes does not apply

Section 2.1 does not apply to:

- (a) police, fire, or ambulance vehicles while engaged in operational activities, including training activities except where idling is substantially for the convenience of the operator of the vehicle;
- (b) vehicles assisting in an emergency activity;
- (c) mobile workshops while they are in the course of being used for their basic function;
- (d) vehicles where the idling is required as part of a repair process or to prepare a vehicle for servicing;
- (e) armored vehicles where a person remains inside the vehicle while guarding the contents of the vehicle or while the vehicle is being loaded or unloaded;
- (f) vehicles that remain motionless because of an emergency, traffic or weather conditions or mechanical difficulties over which the driver has no control;
- (g) vehicles engaged in a parade or race or any other such event authorized by Council;
- (h) transit and passenger vehicles while passengers are embarking or disembarking en route or at terminals;
- (i) transit vehicles while at a layover or stopover location, except where the idling is substantially for the convenience of the operator of the vehicle;
- (j) vehicles transporting a person where a medical doctor certifies in writing that for medical reasons, the person requires the temperature or humidity be maintained within a certain range;
- (k) vehicles when the ambient outside temperature is more than 27 degrees Celsius (27°C) or less than five degrees Celsius (5° C).

Part 3

ADMINISTRATION AND ENFORCEMENT

3.1 Administration - enforcement

This by-law shall be administered and enforced by the Medical Officer of Health.

3.2 Fine - for contravention

Any person who contravenes any provision of this by-law is, upon conviction, guilty of an offence and is liable to any penalty as provided in the *Provincial Offences Act*.

3.3 Continuation - repetition - prohibited by order

The court in which a conviction has been entered and any other court of competent jurisdiction thereafter, may make an order prohibiting the continuation or repetition of the offence by the person convicted and such order shall be in addition to any other penalty imposed on the person convicted.

¹http://www.transportation.anl.gov/pdfs/idling_worksheet_light-duty.pdf.