

Ontario's Smog Patrol

What is Ontario's Smog Patrol?

Ontario's Smog Patrol is a new, on-road campaign targeting grossly polluting vehicles. Since July 1998, drivers of vehicles emitting visible smoke from their exhaust pipes have been stopped and warned that the province was gearing up for enhanced enforcement of Ontario's vehicle emission regulations (Regulation 361/98).

In July, the program began a phase-in period, warning the public of enhanced enforcement to come. As of August 4, 1998, provincial officers working with enforcement agencies have begun identifying and ticketing drivers of vehicles that don't comply with the regulation.

Smog Patrol also kick starts the on-road enforcement component of Drive Clean, Ontario's new vehicle inspection program.

Why a Smog Patrol?

Tailpipe exhausts from the vehicles we drive contain pollutants that cause smog – one of our most serious and visible air pollution problems. In fact, a grossly polluting vehicle can release up to 20 times more pollution than a well-tuned vehicle.

Smog pollutants have been linked to the incidence of allergies, asthma, chronic bronchitis and other respiratory and heart ailments, even premature deaths. They are also known to harm crops, vegetation and wildlife, corrode materials and damage buildings and property.

Much has already been done by vehicle manufacturers to make engines burn cleaner. But vehicle drivers and owners are also responsible for reducing vehicle emissions by ensuring regular engine tune-ups, making necessary repairs, and ensuring vehicles are set to original equipment manufacturers' specifications. If all drivers and owners maintained their vehicles regularly, we could reduce fleet emissions of nitrogen oxides by 12 per cent and volatile organic compounds by 30 per cent. Ontario has set a goal of reducing these two pollutants by 45 per cent from 1990 levels by the year 2015. By driving clean, we can do our part to achieve this goal.

How the Smog Patrol works

The traffic-heavy Golden Horseshoe area is the initial focus for the Smog Patrol. Blitzes will later be expanded to locations throughout southwestern Ontario, which will be determined by the Ministry of the Environment, with input from the police and the public. Blitzes will focus on vehicle traffic in and around the designated areas.

In addition to the blitzes, emissions checks will be done at border crossings.

During a blitz, local enforcement agencies, with the help of provincial officers, will escort vehicles suspected of exceeding provincial emissions standards to a Smog Patrol inspection site. All vehicles entering the site will be directed to a site officer, who will explain the inspection program and record vehicle and

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Ontario's Smog Patrol program is designed to help reduce emissions of smog-causing pollutants from vehicles and to raise awareness that driving a properly tuned engine helps combat smog. Areas with serious smog problems will be targeted for inspection blitzes. During an inspection blitz, provincial officers work with local enforcement agencies to spot, test and ticket vehicles not complying with tough new regulations on exhaust emissions.
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driver information. Provincial officers will then visually observe the vehicle's exhaust, and/or test the vehicle's exhaust. If the vehicle does not meet provincial standards for emissions, the driver will be issued either a warning, offence notice and/or field order to have the vehicle repaired.

Vehicle testing

Heavy-duty diesel-powered vehicles

Heavy-duty diesel-powered vehicles will be tested by using the Society of Automotive Engineers (SAE) J1667 snap idle acceleration test. This test measures the opacity of the smoke coming from the exhaust pipe. The test involves placing a sensor in an exhaust stack and then revving the engine from idle to the maximum governed speed three times. An averaged peak opacity from these tests is compared with the standards in the regulation.

Note: Opacity is the degree to which a visible emission obstructs the passage of light. Light is obstructed by the presence of particulate in vehicle exhaust – the dirtier the smoke, the higher the opacity rating.

In addition, if there are visible emissions of smoke coming from a heavy-duty vehicle's exhaust for a period of 15 seconds in any five minute period, the vehicle is automatically deemed a gross emitter and the driver may be ticketed.

Passenger vehicles

If there are visible emissions of smoke coming from the exhaust of a passenger vehicle or light-duty vehicle for a period of 15 seconds in any five minute period, the vehicle is automatically deemed a gross emitter and the driver may be ticketed.

Tickets

The owner or the driver of the vehicle failing inspection may be issued a ticket. These tickets will range from \$305 for passenger and light-duty vehicles, to \$425 for heavy-duty vehicles.

Repeat offenders may be issued additional tickets. If vehicle owners disregard these fines, they could face a court summons and/or vehicle impoundment up to two days; if they are successfully prosecuted under Part III of the *Provincial Offences Act* they could face fines up to \$25,000.

Provincial officers will also have the ability to issue field orders requiring that vehicles be fixed.

What is Regulation 361/98?

Regulation 361/98 sets emission standards for light-duty and heavy-duty vehicles. Regulation 361/98 makes it an offence to operate a vehicle emitting visible emissions of smoke for more than 15 seconds in any five-minute period.

In addition, Section 23 (1) of the *Environmental Protection Act* makes it illegal to operate, or permit the operation of a vehicle that does not comply with the emission standards in Regulation 361/ 98.

For light-duty and heavy-duty diesel-powered vehicles subjected to an emissions test, the emissions standards are as follows:

For the first year of the program:

- exhaust from diesel-powered vehicles, model year of 1974 or earlier, must have an opacity less than 70 per cent
- exhaust from diesel-powered vehicles, model year 1975 to 1994, must have an opacity less than 60 per cent
- exhaust from diesel-powered vehicles, model year of 1995 or newer, must have an opacity less than 40 per cent.

After the first year of the program, these standards will be 50 per cent opacity for diesel powered vehicles with a model year of 1974 or earlier, 40 per cent for vehicles with a model year of 1975 to 1994, and 30 per cent for vehicles with a model year of 1995 or newer.

How can you ensure a clean-burning engine?

Drivers can do their part to improve air quality, by following these simple steps.

1. Be aware of the appearance of your exhaust and overall engine and vehicle condition and performance.
2. Ensure vehicles are properly maintained and tuned up to the manufacturer's specifications.

Smoking heavy-duty diesel-powered vehicles

Since smoke is really unburned fuel, most heavy-duty diesel-powered vehicle owners and operators recognize that a smoking vehicle is an inefficient vehicle and that improved fuel economy is to their benefit.

Smoke from heavy-duty vehicles is not only bad for the environment, it also tarnishes the image of the trucking and busing industry.

Smoke is usually the result of incomplete combustion or certain engine operating conditions. Smoke can also be the direct result of improper vehicle operation.

Smoke comes in several different forms:

- Black smoke** usually caused by incomplete combustion
- Blue smoke** usually results from burning engine oil. This is usually due to worn piston rings, cylinder liners, valve guides, or other components
- White smoke** the result of droplets of unburned liquid fuel and water vapor. It occurs typically at start-up, or idle

Some common maintenance problems can lead to excessive smoke from exhaust pipes. These include:

- clogged or worn fuel injectors
- misadjusted injection timing
- clogged air filters.

Engine tampering is also a major cause of high smoke levels. Devices that are commonly tampered with include:

- smoke puff limiters
- maximum fuel rate too high
- fuel pump calibration
- fuel injection timing.

Those who drive, own, and repair these vehicles are responsible for ensuring that these vehicles meet with provincial regulations.

Ontario's Drive Clean program

The Smog Patrol is an important step in the implementation of Drive Clean – Ontario's new vehicle inspection program targeted to start in 1999.

Drive Clean will require the regular testing of exhaust emissions from passenger vehicles,

light trucks, heavy-duty trucks and buses. The passenger car/light-truck component of Drive Clean will be phased in and will cover the southern Ontario areas with the most serious smog problems (the Greater Toronto Area and Hamilton-Wentworth Region), as well as 13 urban centres and their commuting zones between Peterborough and Windsor.

Vehicle test results will be compared to emissions standards for vehicle model years. Vehicles that fail the test must be repaired and retested. Owners of passenger vehicles will be required to provide proof that their vehicles have passed an emissions inspection as a precondition for the registration renewal (every two years) and at the time of resale and/or transfer of ownership. Heavy-duty vehicle testing will be part of the vehicle's annual safety inspection.

Historic vehicles, light duty commercial farm vehicles, motorcycles and light-duty vehicles four years old or newer are excluded from Drive Clean. Motorcycles will be included when recognized emissions test methods are in place.

With the implementation of Drive Clean on-road spot checks will continue. These spot checks will supplement the heavy-duty and light-duty vehicle inspections by continuing to deal with gross emitters.

For more information contact:

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