

# **Maryland Vehicle Emissions Inspection Program**

## **A Guide to the Vehicle Emissions Inspection Test Results Certificate 2005**

**Maryland Department of the Environment**

**[www.mde.state.md.us](http://www.mde.state.md.us)**

**Maryland Department of Transportation**

**Motor Vehicle Administration**

**[www.marylandmva.com](http://www.marylandmva.com)**



Robert L. Ehrlich, Jr., Governor  
Michael S. Steele, Lt. Governor



Kendl P. Philbrick, Secretary  
Jonas A. Jacobson, Deputy Secretary

# How to Read Maryland's Vehicle Emissions Inspection Test Results Certificate

The Vehicle Emissions Inspection Certificate (VEIC) is divided into several sections and gives you the results of the emissions test. The description below should assist you in understanding your vehicle's test results.

## Test Results

Overall Result	Valid Through	OBD	Treadmill	Idle	Gas Cap	Equipment Tampering (Idle Test Only)

- **Overall Result** - Indicates whether the vehicle passed or failed the emissions test.
- **Valid Through** - Current test results cover this vehicle through this date.

**Depending on the age, weight and model of your vehicle, it will receive only one of these three tests.**

- ◆ **OBD** - On-Board Diagnostics Test. This test is performed on 1996 and newer model year vehicles weighing 8,500 pounds or less and equipped with a computer controlled engine and fuel system.
  - ✿ Instead of testing the vehicle's exhaust, the OBD test involves scanning the vehicle for emission control malfunctions. During an on-board diagnostics scan, a lane inspector connects to the vehicle's OBD system through a connector to determine the presence of recorded "trouble codes" that illuminate the "check engine" light on the instrument panel. Vehicles with an illuminated "check engine" light fail the VEIP test.
- ◆ **Treadmill** - Treadmill Test, also known as the IM240 Test. This test is performed on 1984 - 1995 model year vehicles weighing 8,500 pounds or less.
  - ✿ The vehicle is driven on a treadmill while the exhaust is collected and analyzed. The vehicle's emissions are measured under a range of operating conditions including acceleration, deceleration, cruising and idle.
- ◆ **Idle** - Idle Test. This test is performed on all 1977 - 1983 model year vehicles, and on trucks weighing from 8,501 to 26,000 pounds regardless of the model year.
  - ✿ The vehicle's emissions are analyzed while the engine is at idle. The idle test is more appropriate for older model cars because of the vehicle's emissions system design.
  - ✿ **Equipment Tampering (Idle Test Only)** - A physical, visual inspection is performed on the vehicle to ensure the presence of the catalytic converter if the vehicle was originally manufactured with one.

**Gas Cap** - Gas Cap Leak Check. In addition to the emissions test all vehicles also receive an advisory gas cap leak test.

- ✿ The cap is placed on a testing adapter and gently pressurized with air to ensure that it seals tightly. While the results of this part of the test currently will not cause your vehicle to fail the emissions test, a gas cap that fails should be replaced in order to reduce gasoline vapor loss. Gasoline vapor loss contributes to our current pollution problem, and can also decrease your fuel efficiency.

## Vehicle Information

License Plate	Vehicle Identification Number	Year	Make	Model	Weight Class	Assigned Date

Information pertaining specifically to your vehicle.

- License Plate - License plate number of vehicle tested.
- Vehicle Identification Number - also known as the VIN.
- Year - model year of the vehicle tested.
- Make - make of vehicle tested.
- Model - model of vehicle tested.
- Weight Class - Vehicles are described by their weight class.
  1. LDGV - Light Duty Gasoline Vehicles (passenger vehicles).
  2. LDGT1- Light Duty Gasoline Trucks weighing 0 - 6,000 pounds.
  3. LDGT2 - Light Duty Gasoline Trucks weighing 6,001 - 8,500 pounds.
  4. HDGT1 - Heavy Duty Gasoline Trucks weighing 8,501 - 10,000 pounds.
  5. HDGT2 - Heavy Duty Gasoline Trucks weighing 10,001 - 26,000 pounds.
- Assigned Date - The date by which your vehicle was due for testing.

## Facility Information

Station ID	Lane	Operator ID	Test Date	Test Number	Start Time	End Time

Information pertaining to the State Station where your vehicle was tested.

- Station ID - Specific State Station number.
- Lane - The lane in which the vehicle was tested.
- Operator ID - Identification of station employee assigned to perform the emissions tests in this lane.
- Test Date - The date the test was performed.
- Test Number - Number of times vehicle has been tested during the test cycle. (1– initial test, 2 – retest)
- Start Time - The time the actual test started.
- End Time - The time the actual test ended.

## Payment Information

Test Fee	Late Fee	Adjustment / Code	Total Paid	Payment Type	Tendered	Change

Information pertaining to test fees and payments.

# Consumer Information

## Test Information for On-Board Diagnostics (OBD)

The OBD test validates proper operation of the vehicle's emissions control system. Since the OBD test does not measure emissions from the vehicle, emissions readings are not reported on the certificate.

## Test Information for Idle/Treadmill

TEST INFORMATION FOR IDLE / TREADMILL			
	Hydrocarbons (HC)	Carbon Monoxide (CO)	Oxides of Nitrogen (NO <sub>x</sub> )
State Standards			
Inspection Readings			
Inspection Results			
<b>NA printed in a box indicates that this test was not required.</b>			

Hydrocarbons (HC) - Hydrocarbon emissions result from incomplete fuel combustion.

Carbon Monoxide (CO) - Carbon monoxide forms when carbon in fuel doesn't burn completely (incomplete combustion).

Oxides of Nitrogen (NO<sub>x</sub>) - Oxides of Nitrogen form when fuel burns at extremely high temperatures. (This component is only measured during the treadmill test.)

State Standards - Maximum amount of pollution allowed.

Inspection Readings - Amount of pollution measured during the test.

Inspection Results - Indicates if the vehicle passed or failed for that pollutant.

The test results are recorded in parts per million (PPM) if the idle test is performed.

The test results are recorded in grams per mile (GPM) if the vehicle received the treadmill (IM240) test.

**NA printed in any of these boxes indicates that the OBD test was performed on the vehicle and actual emissions were not measured.**

## If Your Vehicle Did Not Pass

Vehicles that fail the emissions test must be repaired and retested. For more information describing why your vehicle did not pass, see the "If Your Vehicle Didn't Pass" brochure, or go to [www.marylandmva.com](http://www.marylandmva.com). Repairs can be done by you, or any repair technician, but in order for repairs to qualify towards a waiver, they must be emissions related, and should address the reason for the emissions failure. The reverse side of the VEIC should be filled in by the person repairing the vehicle.

## You are Part of the Solution!

Maryland's Vehicle Emissions Inspection Program (VEIP) is working. By having your vehicle tested, you are playing an important part in Maryland's successful and ongoing efforts to reduce levels of ground-level ozone, a major component of smog, and a persistent air pollution problem in Maryland. Ground-level ozone is formed by chemical reactions involving hydrocarbons (HC) and nitrogen oxides (NO<sub>x</sub>) in the atmosphere in the presence of sunlight. Motor vehicles are a significant source of both HC and NO<sub>x</sub> emissions in Maryland. Along with cleaner fuels and new, low-emitting vehicles, the VEIP is helping to reduce emissions of these pollutants and create a healthy air quality environment for Maryland citizens.

For more information on air pollution visit EPA's website:

<http://www.epa.gov/otaq/invntory/overview/index.htm>