

## District of Columbia's Vehicle Emissions Inspection and Maintenance (I/M) Program



Monitoring and Assessment Branch, Air Quality Division  
DC Department of Energy and Environment

### District's I/M – Air Quality Benefit

- Mobile sources are major pollution contributors in the District;
- I/M program provides significant benefits - nearly 50% VOCs and 40% NOx mobile emission reductions.

## District's I/M Program...

- Basic I/M program (Idle tests) since 1983;
- Enhanced inspections (IM240 tests) since 1999;
- On-board diagnostic (OBD II) tests implemented in 2004;
  
- DMV maintains the vehicle inspection facilities;
- DOEE's Air Quality Division provides regulatory oversight and tracks the program performance.

## District's I/M...

- Gasoline vehicles up to 26,000lb weight rating;
- Annual inspection for commercial vehicles;
- Biennial inspection for private vehicles;
- New vehicle exemption- up to 4 years;
- Waiver when at least \$881 spent for emissions related repairs on a failed vehicle.

## District's I/M...

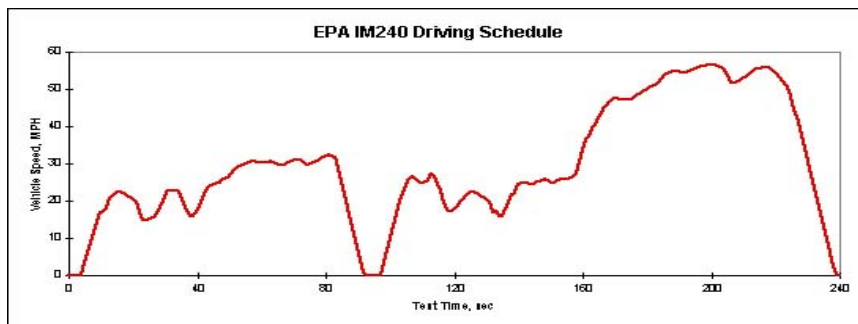
- Model year 1968 – current
- 1996 to current model year are tested with an OBD testing protocol;
- 1984-1995 vehicles receive an IM240 test on a single axle dynamometer;
- All other vehicles in the eligibility weight category receive an idle test.

## Inspection Procedures–Idle Test

- Idle test is an unloaded, steady-state test to measure tailpipe emissions.
- HC and CO from the tailpipe measured when the vehicle is at idle.

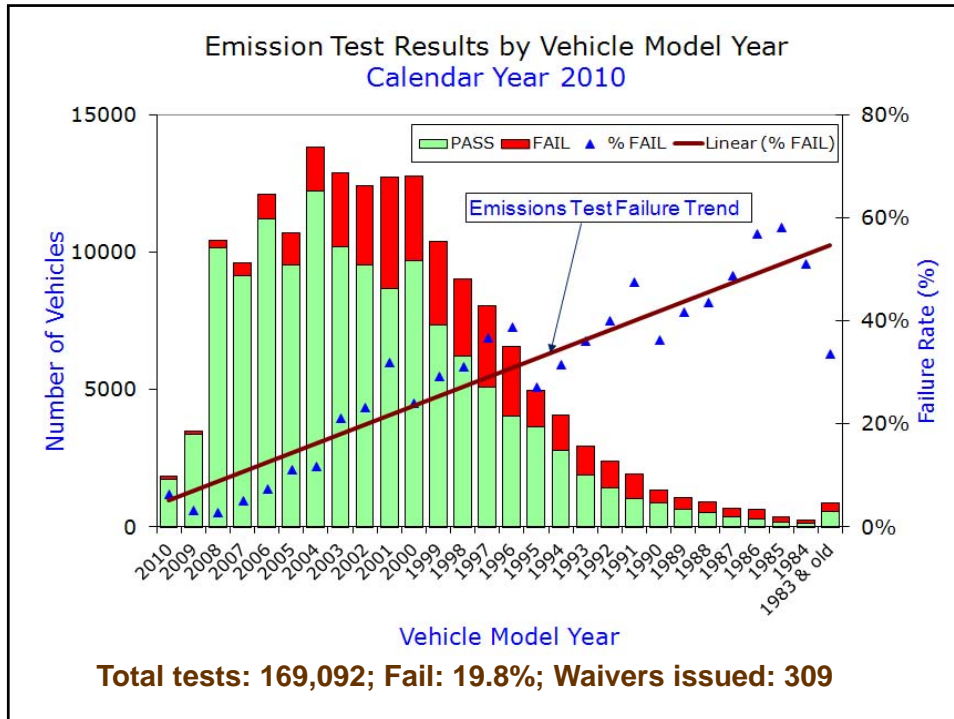
## IM240 Test

- Chassis dynamometer test;
- Test lasts 240 seconds (4 minutes), has a top speed of 56.7 mph and average speed of 29 mph; simulates a trip of approx. 2 mile travel distance;
- NOx, HC and CO from the tailpipe measured;
- 1984-1995 model year vehicles.



## OBD Test

- On-Board Diagnostics (OBD II) is a computer-based system built into all 1996 and newer light-duty vehicles
- OBD systems monitor the performance of vehicle's components responsible for controlling tailpipe emissions (catalytic convertor, oxygen sensors, etc.)



## Future of District's I/M Program

- Emissions Inspection Amendment Act of 2017 (Bill 22-70) passed in late 2017
- Partially decentralized (hybrid?) program
  - allows OBD I/M tests at privately operated inspection facilities in the District.
- Implementation schedule - TBD