

Vehicle Emission Inspection and Maintenance (I/M) Questions and Answers Related to the Volkswagen Defeat Device Issue

USEPA – Office of Transportation and Air Quality

Question: How many I/M programs are there?

Answer: Thirty-one states in the U.S. and the District of Columbia have vehicle emission I/M programs for gasoline-fueled vehicles.

Q: How many test light-duty diesel vehicles (LDDVs) like the ones identified in the notice of violation?

A: Of the 32 programs in the U.S. that have vehicle emission I/M programs for gasoline-fueled vehicles, 21 also test certain varieties of LDDVs. The states or jurisdictions are: Arizona, California, Colorado, Connecticut, Delaware, Idaho, Maine, Massachusetts, Missouri, Nevada, New Hampshire, New Jersey, New Mexico, New York, Ohio, Tennessee, Utah, Vermont, Virginia, and Wisconsin.

Q: What tests are performed on LDDVs?

A: Most I/M programs in the U.S. that test LDDVs for NO_x use onboard diagnostic (OBD) based testing for vehicles so equipped. OBD tests vehicles by monitoring the performance of an array of emission control devices and lighting a dashboard “Check Engine” light whenever a fault is detected that could lead to emissions exceeding their certification levels by 1.5 times the standard. OBD systems were required on all light-duty diesel vehicles sold in the U.S. beginning with model year 1997 – one model year after OBD was mandated for light-duty gasoline-fueled vehicles. In addition, some states also use smoke opacity testing for those diesel vehicles without OBD systems. Opacity testing involves measuring the degree to which visible smoke from the exhaust blocks a light source as measured by a light meter. NO_x, being invisible, is not measured by smoke opacity testing.

Q: Why don't all states test LDDVs?

A: Only a subset of U.S. states are required to do any sort of I/M testing, based upon urban population and local air quality. These programs are required to include light-duty gasoline-fueled vehicles and to achieve reductions in carbon monoxide and ozone. Several I/M programs only test gasoline-fueled vehicles because they make up the vast majority of the in-use vehicle

fleet. Conversely, LDDVs make up a very small fraction of the in-use fleet in the U.S. And while LDDVs do emit ozone precursors, at the time the Clean Air Act I/M requirements were issued, there was no reliable I/M test for measuring NOx emissions from diesel vehicles. As a result, diesel vehicles were not covered by the Act's I/M requirements.

Q: Would I/M testing identify these vehicles with defeat devices?

A: The kind of I/M testing being done on LDDVs in the U.S. would not be expected to identify these vehicles with defeat devices. In the case of the OBD test for LDDVs, the defeat device was specifically designed to circumvent the OBD system's ability to flag high NOx emitters. In the case of smoke opacity testing, the only thing tested is the light-blocking property of the smoke coming out of the tailpipe. NOx, being invisible, is not measured by smoke opacity testing.

Q: Should owners of these vehicles be worried about failing their next I/M test?

A: Vehicle owners should not be penalized by the I/M program for something that is beyond their control. For the time being, states should test these vehicles as they have done in the past. It should be noted that, given the intended purpose of the defeat device, there is no expectation that the defeat device will be the cause of any vehicle failing an IM test. Of course any vehicle could have an unrelated problem which might result in failure.

Q: Will I/M testing make owners of these vehicles liable for repairing issues that may eventually be the subject of a recall?

A: No. In the event of an official recall campaign, vehicles owners will be notified individually by the manufacturer and all necessary repairs will be performed at the manufacturer's cost.

Q: If I own one of these vehicles, what will I need to do prior to my next I/M inspection?

A: If you own a vehicle covered by the notice of violation you should continue to submit your vehicle for I/M testing as you have in the past. In the event that a recall campaign is initiated for these vehicles, once you receive your recall notification you should get the vehicle repaired at the manufacturer's expense as soon as possible and before showing up for your next I/M test. Proof of compliance with the recall notice should be brought to the test station.

Q: What if my next I/M test comes due before I get a recall notification and the vehicle fails the I/M test?

A: For reasons discussed above, it is unlikely that the defeat device will result in vehicles failing the test when they should actually pass because the defeat device is intended to pass vehicles that should otherwise fail. Therefore, if a vehicle suspected of having a defeat device nevertheless fails its I/M test, the failure should be viewed as legitimate and the vehicle should be addressed according to the requirements of a state's I/M regulatory program.

Q: Do states require emission-related recalls to be performed before allowing vehicles to be tested in the local I/M program?

A: The Clean Air Act requires vehicles subject to emission-related recalls to comply with those recalls before being admitted to I/M testing in enhanced I/M programs. For vehicles covered by the current violation, the defeat device was included on all the makes, models, and model years identified in the notice of violation. Therefore, based on information to date, make, model, and model year should be sufficient for states to identify the vehicles in question in the event of a recall and proof-of-repair from a Volkswagen or Audi dealership should be sufficient to demonstrate compliance with that recall for purposes of being admitted to I/M testing.