

§ 7:27B-4.2 General instructions for all tests

(a) An inspector conducting an emissions test on a heavy-duty diesel vehicle or diesel bus pursuant to any provision of this subchapter including, but not limited to, N.J.A.C. 7:27B-4.3, 4.4(a), and 4.4(b), shall perform the test in accordance with the following general procedures:

1. Test the vehicle in as-received condition;
2. Prior to testing, verify that the smokemeter is calibrated in accordance with the manufacturer's requirements;
3. Prior to testing, ensure that the engine is at normal operating temperature by operating the vehicle on a highway for a minimum of 15 minutes;
4. Examine the vehicle's exhaust system for integrity. For testing at a PIF, only, tighten all loose pipe connections and repair all significant exhaust leaks before performing a test;
5. Prior to conducting a smoke opacity test on a diesel-powered motor vehicle equipped with multiple exhaust outlets, determine which exhaust outlet exhibits the highest opacity level by visually comparing the opacity level of each outlet during a single repetition of the snap acceleration test as set forth at N.J.A.C. 7:27B-4.3(a), if appropriate, or by liberally accelerating the engine at WOT, not to exceed maximum governed RPM. Conduct the testing using the highest-opacity exhaust outlet;
6. Do not conduct the test if the ambient temperature is below 35 degrees Fahrenheit or above 95 degrees Fahrenheit, or if the temperature is at the dew point as determined by using a thermometer and hygrometer. If the testing is conducted outdoors, do not conduct the test if there is any visible precipitation, such as rain or fog, at the test site during the time of testing;
7. Prior to testing, turn off the engine brake and all vehicle accessories, including, but not limited to, air conditioning, heating, defroster, radio and lights;
8. Determine that the engine speed governor is in proper operating condition. For PIFs only, make this determination as follows: operate the engine with the transmission in neutral and the clutch disengaged. Gradually increase the engine speed from curb idle to high idle while observing an RPM sensor connected to the engine. The engine speed should not exceed high idle as specified by the engine manufacturer with the accelerator pedal fully depressed. If the engine speed continues increasing beyond the manufacturer's rated high idle, immediately release the accelerator pedal. If the engine speed increases uncontrollably, immediately release the accelerator pedal and shut off the engine's fuel supply. Discontinue emission testing of any vehicle with dysfunctional or out-of-specification engine speed governors. Do not resume testing unless and until speed governor repairs are made;
9. If inspecting a vehicle, which was either equipped by the manufacturer or was retrofitted in accordance with State or Federal law or regulation with a catalytic converter, particulate trap or trap oxidizer, or any other exhaust aftertreatment device, inspect the exhaust system for the presence of the device and for its physical integrity. Discontinue testing of any motor vehicle, which exhibits any missing exhaust aftertreatment device or perforating rust, crack, hole, tear or other such physical defect in the device. Discontinue testing if the vehicle's exhaust aftertreatment system is in regeneration mode or is producing high exhaust temperatures, as indicated by the instrument panel controls. If the vehicle being tested is a heavy-duty diesel vehicle or diesel bus with an exhaust aftertreatment device, discontinue testing and fail

the vehicle if the device is found not to be in proper functioning condition. Do not resume testing unless and until the defect(s) are repaired;

10. If, at any time before or during the inspection of a diesel-powered motor vehicle, continuous smoke of any color is observed in the exhaust emissions for more than three seconds, discontinue the testing and determine that the vehicle has failed to pass the smoke opacity test conducted pursuant to N.J.A.C. 7:27-14.6;

(b) An inspector conducting an emissions test on a light-duty diesel vehicle pursuant to any provision of this subchapter, including, but not limited to, N.J.A.C. 7:27B-4.7 and 4.8, shall perform the test in accordance with the following general procedures:

- 1.** Test the vehicle in as-received condition without making any repairs immediately prior to testing;
- 2.** Prior to testing, turn off all vehicle accessories, including, but not limited to, air conditioning, heating, defroster, radio and lights;
- 3.** Prior to testing, ensure that the diesel emissions testing equipment is calibrated and warmed-up in accordance with the manufacturer's requirements;
- 4.** Prior to testing, ensure that the vehicle is at normal operating temperature by doing one of the following:
 - i.** Check the vehicle's engine coolant temperature gauge to confirm that the vehicle is at a normal operating temperature, as indicated by the gauge (that is, that engine coolant temperature is in the "normal" range as specified by the vehicle manufacturer, or, if the "normal" range is not specified by the vehicle manufacturer, is at least 70 degrees Celsius (160 degrees Fahrenheit)); or
 - ii.** Operate the vehicle on the road at speeds above 35 MPH for at least 20 minutes; and
- 5.** Discontinue testing any vehicle in an overheated condition, as indicated by a temperature gauge or warning light, or boiling of engine coolant;

(c) Equipment to be used in conducting an emissions test on a diesel-powered motor vehicle in accordance with N.J.A.C. 7:27-14.5 shall satisfy all specifications and standards for diesel emissions testing equipment as set forth in N.J.A.C. 7:27B-4.6.

(d) An inspector conducting a motor vehicle emissions test on a diesel-powered motor vehicle as set forth in this subchapter shall use only diesel emissions testing equipment that has been approved by the Department prior to its use in the test. Approval by the Department is based on the following criteria:

- 1.** The equipment meets all applicable specifications;
- 2.** The equipment hardware and software comply with the data collection and transfer protocols in use throughout New Jersey's motor vehicle inspection programs;
- 3.** The equipment maintains compatibility with other test equipment used concurrently during the motor vehicle inspection process with which it is required to interface; and
- 4.** The equipment is complete in that it includes all options and accessories necessary for performing each emissions inspection test procedure for which it was designed and it is to be used.

(e) The Department maintains a list of approved equipment for specific test procedures. The Department periodically reviews and evaluates equipment offered by manufacturers of motor vehicle testing

equipment of which it is aware or has been made aware and update this list. A copy of this list can be obtained from:

Department of Environmental Protection
Bureau of Mobile Sources - Diesel Inspection Program
Mail Code 401-02E
PO Box 420
Trenton, NJ 08625-0420

HISTORY:

Amended by R.1997 d.283, effective July 7, 1997 (operative August 11, 1997).

See: 29 N.J.R. 726(a), 29 N.J.R. 2826(b).

Added (e) and (f).

Amended by R.1997 d.393, effective September 15, 1997 (operative October 7, 1997).

See: 29 N.J.R. 971(a), 29 N.J.R. 4108(a).

Substantially amended section.

Amended by R.1998 d.309, effective July 6, 1998 (operative July 21, 1998).

See: 30 N.J.R. 901(a), 30 N.J.R. 2476(b).

Rewrote (a).

Amended by R.1999 d.210, effective July 6, 1999 (operative August 10, 1999).

See: 31 N.J.R. 828(a), 31 N.J.R. 1803(b).

In (a), added "For testing at a DEIC, only," at the beginning of the second sentences of 3 and 4, and divided the former first sentence into the first and second sentences by substituting ". For DEICs only, make this determination as follows" for "as follows" following "condition" and substituted a reference to RPM sensors for a reference to tachometers in the new third sentence in 8.

Amended by R.1999 d.408, effective November 15, 1999 (operative December 7, 1999).

See: 31 N.J.R. 2572(a), 31 N.J.R. 3627(a).

Rewrote the section.

Administrative change.

See: 33 N.J.R. 3550(a).

Amended by R.2009 d.343, effective November 16, 2009 (operative December 18, 2009).

See: 41 N.J.R. 1606(a), 41 N.J.R. 4195(b).

In the introductory paragraph of (a), substituted "heavy-duty diesel" for "diesel-powered motor" and inserted "or diesel bus"; in (a)3, substituted "60" for "70", "140" for "160", and "or" for "and" preceding "water"; rewrote (a)6; in (a)9, inserted a comma following "inspecting a vehicle" and following "motor vehicle", deleted a comma following "tear" and inserted the third sentence; in (a)10, substituted "smoke of any color" for "blue smoke"; deleted (a)11 and (a)12; added new (b); recodified former (b) through (d) as (c) through (e); in (c), substituted "an emissions" for "a smoke opacity" and "diesel emissions testing equipment" for "a smokemeter"; in (d), substituted "diesel emissions" for "motor vehicle emission"; and in (e), updated the address.

Administrative change.

See: 43 N.J.R. 2328(a).

Amended by R.2016 d.124, effective October 3, 2016 (operative December 2, 2016).

See: 48 N.J.R. 748(a), 48 N.J.R. 2049(a).

In the introductory paragraph of (a), inserted a comma following "4.4(a)"; rewrote (a)3; in (a)4, substituted "PIF" for "DEIC"; in (a)8, substituted "PIFs" for "DEIC"; rewrote (b)4i and (b)4ii; in (e), deleted "shall" following the second occurrence of "Department", and substituted "reviews" for "review", "evaluates" for "evaluate", and "401-02E" for "401-03G" in the address.