automatic transmission is repaired or a properly functioning governor or automatic transmission is installed;

2. If the vehicle is equipped with a manual transmission, place the transmission in neutral and release the clutch. If the vehicle is equipped with an automatic transmission and a low speed engine, place the gear selector in the park or neutral position. If the vehicle is equipped with an automatic transmission, but is not equipped with a low speed engine, place the gear selector in drive or low gear. For both manual and automatic transmission vehicles, depress the brakes firmly throughout the remainder of the test;

3. Observe all exhaust ports of the vehicle for the presence of visible black smoke in the exhaust emissions throughout the duration of the test;

4. Beginning with the accelerator pedal in the low idle position, rapidly accelerate the engine at wide open throttle and hold the accelerator pedal at wide open throttle for one to three seconds after the engine has achieved maximum governed RPM or, for vehicles with an automatic transmission, only, until the engine speed stabilizes while operating in a forward gear. Release the accelerator pedal and allow the engine to idle for 15 seconds while continuing to observe the exhaust emissions for visible black smoke. If black smoke is observed, the vehicle shall be deemed to have failed to pass the visible black smoke screening test.

(e) (Reserved)

TABLE 1

Engine Horsepower Rating vs. Nominal Stack Size

Manufacturer's Rated Horsepower	Nominal Stack Size in Inches†
Less than 101	2
101-200	3
201-300	4
301 and over	5

†Note: Nominal stack size shall always be used when measuring engine smoke opacity, irrespective of the stack size equipped on the vehicle being tested. For example, a vehicle equipped with an engine rated at 301 horsepower or above which has an exhaust stack measuring seven inches in diameter shall, for purposes of an official test, have a nominal stack size of five inches input to the smokemeter. If, for example, a vehicle has no engine identification plate and is equipped with an exhaust stack measuring six or seven inches in diameter—but the exhaust pipe from the manifold is five inches in diameter—then the nominal stack size shall be five inches.

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).
Rewrote 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 the section.
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), deleted a reference to manual transmissions in the introductory paragraph.
Administrative correction.
See: 38 N.J.R. 5155(b).
Amended by R.2007 d.235, effective August 6, 2007 (operative September 8, 2007).
See: 38 N.J.R. 5244(a), 39 N.J.R. 3352(a).
In the introductory paragraph of (c), and in (c)13 and (c)21, substituted "power brake" for "stall".

7:27B-4.4 Emission control apparatus, retrofit device and closed crankcase ventilation system examination procedure

(a) The procedure for examination of the emission control apparatus of a diesel-powered motor vehicle, required at N.J.A.C. 7:27-14.5(e), shall, if the motor vehicle had any exhaust aftertreatment incorporated within the vehicle's or engine's certified configuration by the vehicle or engine original equipment manufacturer, consist of a visual check to determine whether such exhaust aftertreatment is present on the motor vehicle.

(b) The absence of any exhaust after treatment determined pursuant to (a) above to be included in a motor vehicle or diesel engine's certified configuration shall result in a determination of failure to pass the emission control apparatus compliance examination.

(c) The procedure for the one-time compliance inspection of the retrofit device of a diesel-powered motor vehicle required to be retrofitted pursuant to N.J.A.C. 7:27-32.7, as required at N.J.A.C. 7:27-32.21 and 14.5(f), shall be performed as follows:

1. Confirm that the vehicle identification number on the vehicle matches the vehicle identification number on the compliance form;

2. Confirm that the diesel emission control strategy family name on the retrofit label matches the diesel emissions control strategy family name on the compliance form;

3. Confirm that the BART number (BART 1, BART 2 or BART 3) on the compliance form matches the BART number on the retrofit label;

4. Visually confirm the presence of a retrofit device upon the vehicle;

5. If the vehicle satisfies all of the conditions of (c)1 through 4 above, certify on the compliance form that the retrofit requirement has been met; and

6. If the vehicle fails to satisfy any of the conditions at (c)1 through 4 above, certify on the compliance form that the retrofit requirement has not been met.

(d) The procedure for examination of the closed crankcase ventilation system of a school bus required to have a closed

crankcase ventilation system installed pursuant to N.J.A.C. 7:27-32.4 and N.J.S.A. 26:2C-8.31, as required at N.J.A.C. 7:27-32.6 and 14.5(g), shall be performed as follows:

1. Confirm that the vehicle identification number on the vehicle matches the vehicle identification number on the compliance form;

2. Visually confirm the presence of a closed crankcase ventilation system that meets the following:

i. The closed crankcase ventilation system must not have any opening that would permit the uncontrolled release of crankcase emissions from the engine, as specified by (d)2ii through v below;

ii. The tubing or similar ducting material originating at the crankcase vent must be ducted to the engine air intake plenum and may include an in-line filtration system;

iii. An in-line filtration system may also have a drainpipe that returns condensed fluids to the crankcase or a collection vessel;

iv. All tubing, ducting or pipes, or connections thereto, leading from the crankcase vent to the terminal point in the air intake system must be closed and secure. This includes connections to any intermediary filters or drain lines, and their terminal points; and

v. There are no visible indications of leaks from closed crankcase ventilation system, such as oil residue at connection points or visible emissions from the closed crankcase ventilation system;

3. If the vehicle satisfies all of the conditions set forth at (d)1 and 2 above, certify upon the compliance form that the closed crankcase ventilation system installation requirement has been met; and

4. If the vehicle fails to satisfy any of the conditions at (d)1 and 2 above certify on the compliance form that the closed crankcase ventilation system installation requirement has not been met.

New Rule, R.1985 d.331, effective July 1, 1985 (operative December 2, 1985).
See: 17 N.J.R. 781(a), 17 N.J.R. 1649(a).
Old rule "Light-duty gasoline fueled motor vehicle emission control apparatus compliance examination procedure" was repealed and this new section adopted except for (a)2 which is still pending.
Public Notice: The Department has decided not to adopt the proposed Plumbtesmo test procedure.
See: 18 N.J.R. 1714(b).
Emergency recodification from 7:27B-4.6 and amendment, R.1995 d.409, effective June 29, 1995 (expires August 28, 1995).
See: 27 N.J.R. 2752(a).
Adopted concurrent proposal, R.1995 d.527, effective August 28, 1995 (operative October 27, 1995).
See: 27 N.J.R. 2752(a), 27 N.J.R. 3806(a).
Recodified from N.J.A.C. 7:27B-4.9 and 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).
In (a) and (c), inserted "gasoline-fueled"; in (b), inserted "in a gasoline-fueled motor vehicle"; and added (d) and (e). Former section recodified as N.J.A.C. 7:27B-4.7.
Administrative change.
See: 33 N.J.R. 3550(a).
Recodified with amendments from N.J.A.C. 7:27B-4.8.
Administrative correction.
See: 38 N.J.R. 5155(b).
Amended by R.2007 d.235, effective August 6, 2007 (operative September 8, 2007).
See: 38 N.J.R. 5244(a), 39 N.J.R. 3352(a).
Section was "Emission control apparatus examination procedure". Added (c) and (d).

7:27B-4.5 Procedures for establishing an alternative smoke opacity standard for diesel-powered motor vehicles

(a) In the event that a heavy-duty diesel vehicle, which is equipped with an engine model year 1973 or older, fails to pass an exhaust emissions inspection as part of either a periodic inspection or an inspection conducted as part of the roadside enforcement program, the owner or lessee of the heavy-duty diesel vehicle may request the Department to establish an alternative smoke opacity standard for that vehicle-engine-chassis combination, if the cause of the failure is due to the design of the vehicle, rather than to insufficient repair and maintenance. The procedures for obtaining this alternative smoke opacity standard are as follows:

1. The owner or lessee shall present to the Department the "Heavy-duty Diesel Emission Testing Report" prepared by the inspector who conducted the smoke opacity testing and determined that the vehicle failed to meet the standards set forth at N.J.A.C. 7:27-14.4 and 14.6, as applicable;

2. The owner or lessee shall submit documentation to the Department, or its designee, demonstrating that the vehicle engine and all fuel control and emissions-related components have been, within 45 calendar days of submission of said documentation:

i. Tuned to minimize the level of smoke in the exhaust emissions consistent with the design, specifications and certified configuration, as applicable, prescribed by the original equipment manufacturer; and

ii. Determined by a licensed diesel emissions inspection center, to be within the design, specifications and certified configuration, as applicable, prescribed by the original equipment manufacturer;

3. The owner or lessee shall subject the vehicle to any other examination or testing required by the Department or the Department's designee. Such examination or testing shall be performed by a person of the Department's choosing; and

4. The owner or lessee shall ensure the performance of any repairs which the Department deems likely to enable the vehicle to meet the smoke opacity standards set forth at N.J.A.C. 7:27-14.4 and 14.6, as applicable.

(b) If the Department determines that the vehicle cannot be repaired to meet the standards set forth at N.J.A.C. 7:27-14.4 and 14.6, it shall issue an alternative smoke opacity standard report to the owner or lessee which establishes an alternative smoke opacity standard for the specific vehicle-engine-chassis combination. The Department shall establish this alternative smoke opacity standard by adding 10 percentage points or the maximum points as necessary to not yield an alternative smoke opacity standard in excess of 100 percent to the highest smoke opacity percentage obtained from all testing of the vehicle performed subsequent to any tuning, repairing, or rebuilding of the engine pursuant to (a)2 above.

(c) In order to have the alternative smoke opacity standard applied when the vehicle is inspected pursuant to the requirements of N.J.A.C. 7:27-14 and this subchapter, an owner or lessee shall present the alternative smoke opacity report issued by the Department to the inspector at the time of the inspection of the vehicle. Failure by the owner or lessee to present the alternative smoke opacity report to the inspector at the time of inspection will result in the application of the smoke opacity standards set forth at N.J.A.C. 7:27-14 otherwise applicable to the vehicle.

New Rule, 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).
Former section recodified as N.J.A.C. 7:27B-4.12.
Administrative change.
See: 33 N.J.R. 3550(a).
Recodified from N.J.A.C. 7:27B-4.13. Former N.J.A.C. 7:27B-4.5, Procedures for the 2,500 RPM test, was recodified as N.J.A.C. 7:27B-5.4.

7:27B-4.6 Specifications for a smokemeter for determining compliance with N.J.A.C. 7:27-14

(a) A smokemeter used to measure smoke opacity in the exhaust emissions of a diesel-powered motor vehicle in order to determine the vehicle's compliance with N.J.A.C. 7:27-14 shall conform to the following:

1. The smokemeter shall, at minimum, conform to all specifications and standards set forth in SAE J1667 and incorporated herein by reference; and

2. The smokemeter shall be capable of accepting as input the vehicle exhaust stack diameter and the engine horsepower;

(b) In addition to the requirements set forth at (a)1 and 2 above, a smokemeter, when used by a diesel emissions inspection center to measure smoke opacity in the exhaust emissions of a diesel-powered motor vehicle for determining compliance with N.J.A.C. 7:27-14, shall conform to the following:

1. The smokemeter shall have an integrated engine RPM hookup with an accuracy of +/-20 RPM, which shall actively measure engine RPM during testing;

2. The smokemeter shall have an oil temperature probe which shall measure engine oil temperature in degrees Fahrenheit during testing;

3. The smokemeter shall have the capability to produce a printed test report, in a format approved by the Department. The report shall include:

i. The date and time of testing;

ii. The final test score and, if test score averaging is required pursuant to N.J.A.C. 7:27B-4.3(a) and (c), individual test run raw scores;

iii. The identification number of the inspector performing the test and the license number of the DEIC at which the test was performed;

iv. The vehicle identification number and the model year of the vehicle tested;

v. A graphical representation, with a resolution of +/-20 RPM, of the pattern measured by the engine RPM hookup during testing; and

vi. The oil temperature when measured during testing conducted pursuant to N.J.A.C. 7:27B-4.3(a)5, (b)4 or (c)6.

New Rule, 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).
Administrative change.
See: 33 N.J.R. 3550(a).