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ENVIRONMENTAL PROTECTION

ENVIRONMENTAL REGULATION

OFFICE OF AIR QUALITY MANAGEMENT

Motor Vehicle Inspection and Maintenance

Proposed Amendments: N.J.A.C. 7:27-14.1 through 14.6, N.J.A.C. 7:27-15.1, 15.3, and 15.5 through 15.8, N.J.A.C. 7:27A-3.10, N.J.A.C. 7:27B-4.1 through 4.4 and 4.6, N.J.A.C. 7:27B-5.1, 5.2, 5.4, and 5.6 through 5.9

Proposed Repeal: N.J.A.C. 7:27B-5.5

Proposed New Rules: N.J.A.C. 7:27B-4.7 and 4.8

Authorized by: Mark N. Mauriello, Acting Commissioner, Department of
Environmental Protection

Authority: N.J.S.A. 13:1B-3(e), 13:1D-9, 26:2C-8 et seq., specifically 26:2C-8 through 8.5, and 8.11 and 39:8-41 et seq.; specifically 39:8-41 through 58.

Calendar Reference: See Summary below for explanation of exception to calendar requirement.

DEP Docket Number: 06-09-03/654

Proposal Number: PRN 2009-

A public hearing concerning this proposal and a proposed State Implementation Plan (SIP) revision will be held at June 8, 2009 at:

New Jersey Department of Environmental Protection

Hearing Room, 1st Floor

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401 East State Street

Trenton, New Jersey

Directions to the hearing room may be found at the Department's website address

<http://www.state.nj.us/dep/where.htm>.

Submit written comments by [60 days after publication], to:

Alice A. Previte, Esq.

Attn: DEP Docket No. 06-09-03/654

Office of Legal Affairs

New Jersey Department of Environmental Protection

401 East State Street, Fourth Floor

PO Box 402

Trenton, NJ 08625-0402

Written comments may also be submitted at the public hearing. It is requested (but not required) that anyone providing oral testimony at the public hearing provide a copy of any prepared text to the stenographer at the hearing.

The Department of Environmental Protection (Department) requests that commenters submit comments on diskette or CD, as well as on paper. Submittals on disk or CD must not be access-restricted (locked or read-only) in order to facilitate use by the Department of the

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electronically submitted comments. Submittal of a diskette or CD is not a requirement. The Department prefers Microsoft Word 6.0 or above. Macintosh formats should not be used. Each comment should be identified by the applicable N.J.A.C. citation, with the commenter's name and affiliation following the comment.

This rule proposal can be viewed or downloaded from the Department's web site at <http://www.state.nj.us/dep>.

The agency proposal follows:

Summary

As the Department has provided a 60-day comment period on this notice of proposal, this notice is excepted from the rulemaking calendar requirements pursuant to N.J.A.C. 1:30-3.3(a)5.

The Department is proposing new rules and amendments at N.J.A.C. 7:27-14, Control and Prohibition of Air Pollution from Diesel-Powered Motor Vehicles, and 7:27-15, Control and Prohibition of Air Pollution from Gasoline Fueled Motor Vehicles; 7:27A, Air Administrative Procedures and Penalties; and 7:27B-4, Air Test Method 4: Testing Procedures for Diesel-Powered Motor Vehicles, and 7:27B-5, Air Test Method 5: Testing Procedures for Gasoline-Fueled Motor Vehicles, to update the motor vehicle emission tests and standards for both gasoline and diesel vehicles. These proposed rules part of a new motor vehicle inspection and maintenance (I/M) program developed by the Department, the Motor Vehicle Commission (MVC) and the Department of Treasury. The MVC is proposing new rules and amendments related to the I/M program, elsewhere in this issue of the New Jersey Register.

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For gasoline-fueled vehicles, the proposed amendments at N.J.A.C. 7:27B-5 establish a new exhaust emission test that will replace two different exhaust emission tests currently in use. The new test will measure exhaust emissions in a manner similar to existing tests, but will not require the use of dynamometers, which are being phased out of the inspection program. The On Board Diagnostics (OBD) test at proposed amended N.J.A.C. 7:27-15 and 7:27B-5 expands the failure criteria to include additional malfunctions that will result in additional failures. Proposed amended N.J.A.C. 7:27-15 excludes vehicles of model year 2001 and newer from gas cap testing. The option for vehicles to comply with public highway and inspection standards by meeting provisions of a repair cost waiver is proposed to be removed. Proposed amended N.J.A.C. 7:27-15 aligns the idle standard exemptions with recently adopted changes to similar rule text at N.J.A.C. 7:27-14 for diesel vehicles. The Department also proposes to amend the administrative penalties at N.J.A.C. 7:27A for gasoline vehicle idling, in order that the penalties are comparable to the penalties for diesel vehicles.

For diesel-powered vehicles, the proposed rules at N.J.A.C. 7:27-14 and 7:27B-4 establish new requirements, tests and standards for light-duty diesel vehicles. All light-duty diesel vehicles will be subject to a visible smoke test, and model year 1997 and newer light-duty diesel vehicles will additionally be subject to an OBD test. The visible smoke test and OBD test applied to light-duty diesel vehicles will be generally consistent with those tests as applied to gasoline vehicles.

In addition to the new rules and amendments described above, the Department proposes to streamline test procedures and specifications.

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Background

In 1974, New Jersey's was among the first I/M programs in the nation to implement mandatory emissions testing for motor vehicles, primarily in response to the Clean Air Act of 1970. Early generations of this vehicle testing program were basic I/M programs that relied for the most part on exhaust emission testing using an idle test. New Jersey's I/M program remained largely unchanged, with only minor updates in equipment and test standards, from 1974 until 1999.

The Clean Air Act Amendments of 1990 required that areas in serious nonattainment of National Ambient Air Quality Standards (NAAQS) for certain criteria pollutants implement an "enhanced" I/M program. The United States Environmental Protection Agency (USEPA) followed with regulations in 1992 that prescribed the required elements of an enhanced I/M program. The Department first promulgated rules to implement an enhanced program in 1995. This was followed by a series of amendments that further modified and defined the program. The enhanced I/M program began testing vehicles in December 1999 and included such major changes as dynamometer-based ASM5015 testing and gas cap testing. In 2003, OBD testing was added for newer vehicles.

The existing New Jersey inspection program is a hybrid design, with both test-only and test-and-repair facilities. Motorists may choose to have their vehicles inspected at either a contractor-operated Centralized Inspection Facility or at a licensed Private Inspection Facility. There are 29 Centralized Inspection Facilities and approximately 1,167 Private Inspection

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Facilities in the State. The operator of the Centralized Inspection Facilities, which are all test-only, does so under contract with the State. Each Private Inspection Facility is independently owned and operated, and is often located in a service station which provides both test and repair services. Both types of facilities may perform safety and emissions inspections of all light and heavy duty gasoline-fueled vehicles and safety inspections of all light-duty diesel vehicles. Emission-related repairs may be performed by the vehicle owner or a registered Emission Repair Facility. This hybrid program design provides for inspection of light-duty and heavy-duty gasoline vehicles and light-duty diesel vehicles. Heavy-duty diesel vehicles are inspected for emissions only at independently-owned and licensed Diesel Emission Inspection Centers.

OBD technology has been installed in light-duty gasoline vehicles since model year 1996, and is available in more than 80 percent of the vehicles subject to the State's I/M program. More I/M programs around the nation are moving toward OBD testing as the sole indicator of vehicle emissions compliance. New technologies are also under development to make OBD testing more convenient to motorists. OBD-equipped vehicles monitor the status of emission controls and engine performance, alerting the driver via a dashboard indicator if there is a malfunction. An OBD inspection consists of connecting inspection equipment to the vehicle using a standardized connector and checking for malfunctions using the vehicle computer.

As part of its process for issuing a request for proposals for a new contract for the I/M program, MVC retained a consultant, MACTEC Federal Programs (MACTEC), to assist it in evaluating the I/M program. MACTEC conducted a study of both emissions and safety testing methods and explored new and emerging inspection technology. MACTEC also conducted a

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survey of other inspection programs and coordinated several stakeholder meetings with affected parties within New Jersey. The stakeholder meetings included representatives from multiple State agencies, law enforcement, safety and emission test equipment manufacturers, inspection contractors, labor unions, citizens groups, Private Inspection Facility owners, automotive training providers and the general public. MACTEC's findings were provided to MVC in a Final Report on January 3, 2007. (The MACTEC report is available at <http://www.nj.gov/mvc/About/reports.htm>.) The MACTEC Final Report, by design, did not make recommendations, but provided a thorough analysis of the issues and options from different perspectives. Among the considerations were environmental benefit, cost to the State, cost to motorists, impact on stakeholders and feasibility. The State (through the Department of Treasury) then issued a request for proposals from vendors to operate the I/M program.

The State convened a multi-agency evaluation committee to review and examine the proposals. The committee carefully examined all technical aspects of all proposals, considered and analyzed the costs, and awarded the contract to Parsons Commercial Technology Group, Inc., to operate the I/M program. The proposed rules relating to the I/M program are a direct result of the contract process, including the meetings with stakeholders, the MACTEC report, and the decisions of the evaluation committee. The proposed rules are intended to minimize the impact on the largest number of stakeholders, contain costs to the State and motorists, and still deliver equivalent environmental benefits and inspection services as the existing I/M program.

The Department is also proposing amendments to consolidate, clarify and harmonize the rules among subchapters. A description of the proposed amendments and new rules follows.

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N.J.A.C. 7:27-14 Control and Prohibition of Air Pollution from Diesel-Powered Motor Vehicles

N.J.A.C. 7:27-14.1 Definitions

The Department is proposing to delete the definitions of “blue smoke” and “black smoke” as these terms are not used in the proposed amended rules.

The Department is proposing definitions for “data link connector” or “DLC,” “diagnostic trouble code” or “DTC,” “malfunction indicator light” or “MIL,” and “OBD-eligible.” These terms are used in reference to OBD testing. The Department also proposes a definition for the term “on board diagnostic” or “OBD.” The proposed definitions for data link connector and malfunction indicator light are identical to the existing definitions for those terms at N.J.A.C. 7:27B-5 for OBD testing of gasoline-fueled vehicles. The definitions for diagnostic trouble code and on board diagnostic are identical to those proposed at N.J.A.C. 7:27-15.1. The on board diagnostic system of a motor vehicle stores a diagnostic trouble code when it detects a malfunction of a system or component. The malfunction will also cause the on board diagnostic system to illuminate the malfunction indicator light. The inspector can retrieve the diagnostic trouble code by inserting an analyzer to the data link connector.

As part of the proposed I/M program, diesel vehicle testing will become an integral part of the vehicle inspection information system, rather than a standalone testing component. The equipment used for diesel testing will be integrated into the I/M information system. This change

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in diesel testing from standalone equipment to equipment that is connected into the I/M information system requires an amended definition of the testing equipment. The Department is proposing a definition for “diesel emission testing equipment” that is based on the existing definition of “motor vehicle testing equipment” at N.J.A.C. 7:27-15.1 for gasoline vehicle testing equipment. The differences between the existing and proposed definitions reflect the different equipment used for testing diesel vehicles versus gasoline vehicles.

In recent years, owners or operators of diesel vehicles have installed emission control devices that were not on the vehicle when it left the factory. The Department is proposing to broaden the definition of “emission control apparatus” to include such retrofit devices. Any regulations that reference emission control apparatus, such as the prohibition against tampering at N.J.A.C. 7:27-14.3, would also pertain to retrofit devices. The Department is also proposing to amend the definition of “retrofit device” to make the definition clearer and more specific. The proposed definition no longer distinguishes between an on-road diesel vehicle and off-road diesel equipment.

The proposed definition of “EPA Memorandum 1A” is the same as the definition of the term at N.J.A.C. 7:27-15.1. The term is used in proposed amended N.J.A.C. 7:14.3(e), which allows modifications to an emission control apparatus or element of design only if it is in accordance with EPA Memorandum 1A.

N.J.A.C. 7:27-14.2 Applicability

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As discussed above, the new I/M program will include the testing of light-duty diesel vehicles that were previously exempt from emissions testing. The Department proposes to delete N.J.A.C. 7:27-14.2(c), which exempted light-duty diesel vehicles from the test requirements at N.J.A.C. 7:27-14.5, and the inspection standards at N.J.A.C. 7:27-14.6. As a result, light-duty diesel vehicles are subject to the proposed test requirements and inspection standards.

N.J.A.C. 7:27-14.3 General prohibitions

The Department is proposing to amend the general prohibitions against tampering with emission control devices on diesel vehicles at N.J.A.C. 7:27-14.3. The amended rule does not consider devices or modifications that are exempted by the USEPA or the California Air Resources Board to be unlawful tampering. The USEPA and the California Air Resources Board exempt from the prohibition of tampering those engine and vehicle modifications that have been determined, either by laboratory testing and/or engineering evaluation, to not cause the vehicle to emit excess pollutants. These exemptions are consistent with the similar exemption for gasoline vehicles at existing N.J.A.C. 7:27-15.7. This proposed amendment will allow owners to install some aftermarket devices to regulated vehicles, but will continue to prohibit aftermarket devices that increase emissions.

N.J.A.C. 7:27-14.4 General public highway standards

The Department proposes to amend N.J.A.C. 7:27-14.4(a)4 to specify that an emission control apparatus or element of design includes those installed on the exhaust system. This

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proposed amendment reflects changes in diesel vehicle technology that now includes aftertreatment devices, typically mounted in the exhaust systems of the vehicles. The Department already inspects aftertreatment devices; however, the amendment provides direction to vehicle inspectors and enforcement personnel who might otherwise overlook exhaust system components during an inspection or investigation.

N.J.A.C. 7:27-14.5 Test requirements

N.J.A.C. 7:27-14.5(a) is proposed to be amended to specify that the smoke opacity tests performed as part of the roadside enforcement program established under N.J.S.A. 39:8-64 and 13:20-46 apply only to heavy-duty diesel vehicles, defined at N.J.A.C. 7:27-14.2, and not to light-duty diesel vehicles or to diesel buses.

The Department is proposing to amend N.J.A.C. 7:27-14.5(a) to require existing diesel emissions tests to be conducted utilizing diesel emissions testing equipment. Only testing equipment that meets the requirements of N.J.A.C. 7:27B-4.2(d) and 4.6 qualifies as “diesel emissions testing equipment” under the proposed new definition. The existing rule does not specify the test equipment to be used for each test, since the existing tests are conducted with a standalone smokemeter. The new inspection program will require that heavy-duty diesel vehicles be tested with equipment that meets more stringent requirements. All diesel emissions testing equipment for the new I/M program will be provided by a single equipment vendor. Facilities licensed by the MVC to perform official inspections will be provided with information regarding how to obtain approved testing equipment.

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The Department proposes to simplify the applicability of the power brake smoke opacity test at N.J.A.C. 7:27-14.5(a)3 by removing the medium or high speed engine qualifier. Under the existing rule, only those diesel-powered motor vehicles with a medium or high speed engine and an automatic transmission could be tested with the power brake smoke opacity test. Under the proposed amended rule, any heavy-duty diesel vehicle with an automatic transmission would qualify for the power brake smoke opacity test, regardless of engine type. The proposed amendment gives diesel inspectors greater flexibility in applying smoke opacity test procedures by expanding the category of vehicles eligible for the power brake test. The proposed amendment also makes it easier for an inspector to select the appropriate test, because the inspector no longer must determine the maximum governed engine speed of a heavy-duty diesel vehicle with an automatic transmission.

At N.J.A.C. 7:27-14.5(a)4, the Department proposes deleting the visible black smoke screening test requirement. The Department proposes a similar amendment at N.J.A.C. 7:27B-4.3. A well-maintained and properly tuned diesel engine should not emit smoke of any color in the exhaust, except for very short puffs of black smoke during acceleration, deceleration, or change of engine speed. Because the Department has proposed, as part of its amendments to the Diesel Powered Motor Vehicle Inspection and Maintenance Program, to amend the public highway standard at N.J.A.C. 7:27-14.4(a) to prohibit visible smoke of any color (see 40 N.J.R. 3541(a)), a separate visible smoke screening test for roadside enforcement will no longer be required.

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Existing N.J.A.C. 7:27-14.5(b) describes the test requirements for periodic inspection of heavy-duty diesel vehicles. There are similar requirements for diesel buses at subsection (c), and general requirements for all diesel-powered motor vehicles at subsection (d). The Department is proposing to consolidate all the vehicle types and test requirements into subsection (b). As part of this consolidation, subsections (c) and (d) are proposed to be deleted, and relevant language from those subsections is relocated to (b). As in proposed amended N.J.A.C. 7:27-14.5(a), the Department proposes at N.J.A.C. 7:27-14.5(b)3 to expand the power brake smoke opacity test to all vehicles with automatic transmissions, by removing the restriction that the engine be a medium or high speed diesel engine.

Under the proposed amendments, all heavy-duty diesel vehicles and buses will be subject to the same test requirements for periodic testing or self-inspection. All of the existing test options will be retained. The rolling acceleration, snap acceleration and power brake smoke opacity tests, as appropriate to vehicle type, will remain available testing options.

Proposed new N.J.A.C. 7:27-14.5(c) describes test requirements for light-duty diesel vehicles. The Department is proposing a visible smoke test for light-duty diesel vehicles of all model years, and an OBD test for model year 1997 and newer. In accordance with Federal requirements, all model year 1997 and newer light-duty diesel vehicles are equipped with a functional OBD system. The Department anticipates that the transition to OBD testing for these vehicles will be relatively simple. Manufacturers of light-duty diesel vehicles usually manufacture a similar light-duty gasoline-fueled model. The State has been successfully testing OBD systems on light-duty gasoline vehicles since August 2003.

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The Department has no emission testing data for light-duty diesel vehicles because the existing rules exempt the vehicles from the testing requirements. The State has conducted limited pilot testing to ensure OBD equipment compatibility. Currently, about 13,000 light-duty diesel vehicles are registered in New Jersey, of which 7,800 are model year 1997 or newer. Based upon its experience with inspections of light-duty gasoline vehicles, the Department anticipates that each year approximately 11 light-duty diesel vehicles will fail the visible smoke test, and approximately 356 light-duty diesel vehicles will fail the OBD test. The Department also anticipates that light-duty diesel vehicles will initially fail at a higher rate than their gasoline-fueled counterparts. Vehicles that are subject to regular testing are more often properly maintained, because a well maintained vehicle is less likely to emit pollutants in excess of the emissions limits than a poorly maintained vehicle. Therefore, until light-duty diesel vehicle owners subject their vehicles to regular maintenance, the vehicles are more likely to fail inspection.

Proposed new N.J.A.C. 7:27-14.5(g) and (h) describe the criteria the Department applies to determine OBD eligibility. This proposed new language is equivalent to the OBD eligibility criteria for gasoline vehicles at existing N.J.A.C. 7:27-15.5(m) and (n).

The Department is proposing to recodify subsections (e), (f) and (g) of N.J.A.C. 7:27-14.5 as (d), (e) and (f).

N.J.A.C. 7:27-14.6 Inspection standards

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The proposed deletion of N.J.A.C. 7:27-14.2(c) subjects light-duty diesel vehicles to the inspection standards at N.J.A.C. 7:27-14.6; however, the Department does not intend that the opacity standards at N.J.A.C. 7:27-14.6(a) apply to light-duty diesel vehicles. Accordingly, the Department proposes to amend N.J.A.C. 7:27-14.6(a) to limit the opacity standards to heavy-duty diesel vehicles and diesel buses.

In order to maintain consistency with the proposed amendments to N.J.A.C. 7:27-14.5 that consolidate test procedures and vehicle types, the Department is proposing to amend N.J.A.C. 7:27-14.6(c) and (d) to include the rolling acceleration test as an option for diesel buses and retrofitted EPA urban diesel buses. The Department considers all the smoke opacity test procedures to be equally applicable. The same opacity standards apply, no matter which of the test methods is used. The Department does not propose to amend the smoke opacity standards themselves in this proposal; however, the Department proposed to amend the opacity standards in its pending proposal published on June 16, 2008 (40 N.J.R. 3541(a)) (Diesel Cutpoint rules). If the proposed Diesel Cutpoint rules are adopted, the Department will, on adoption of the within amendments, add the rolling acceleration smoke opacity test to the amended standards for diesel buses and retrofitted diesel buses at N.J.A.C. 7:27-14.6(j) and (k) (which are proposed to be added to the section as part of the Diesel Cutpoint rules). The standards would go into effect six months after the operative date of the Diesel Cutpoint rules, which is anticipated to be a date prior to date that the within rules are operative. Without such an amendment, the rules could be interpreted as allowing a diesel bus or retrofitted EPA urban bus to use the rolling acceleration

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test only until a date six months after the operative date of the Diesel Cutpoint rules, when the new standards go into effect.

The Department is proposing new N.J.A.C. 7:27-14.6(h) and (i) to include standards for the proposed visible smoke test and OBD test for light-duty diesel vehicles. Proposed subsection (h) parallels N.J.A.C. 7:27-15.6(a), which applies the same test procedures to gasoline-fueled vehicles. Proposed new subsection (i) parallels the OBD inspection standards for gasoline-fueled vehicles at proposed amended N.J.A.C. 7:27-15.6(b)3, discussed below. The Department anticipates an increase in emission failures for light-duty diesel vehicles, as discussed in the Summary of N.J.A.C. 7:27-14.5, above.

Appendix

The Department is proposing an Appendix to N.J.A.C. 7:14, similar to the Appendix to N.J.A.C. 7:27-15 for gasoline-fueled vehicles. The proposed Appendix presents a table providing a simplified overview of the emission test procedures a diesel vehicle may be subject to, based on model year and vehicle type.

N.J.A.C. 7:27-15 Control and Prohibition of Air Pollution from Gasoline-Fueled Motor Vehicles

N.J.A.C. 7:27-15.1 Definitions

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The Department proposes a definition for “autobus.” The term autobus is used at N.J.A.C. 7:27-15.8. Providing a definition for autobus adds clarity to the rules and enhances enforceability. The proposed definition is derived from the definition of “diesel bus” at N.J.A.C. 7:27-14.1. In the context of this Subchapter, an autobus is functionally equivalent to a diesel bus in design and use. Each diesel bus falls within the definition of autobus; however, not every autobus is a diesel bus. An autobus could be fueled other than with diesel fuel. In the context of subchapter 15, regulated autobuses are only those that fall within the limitations of N.J.A.C. 7:27-15.2, Applicability.

The Department is proposing to add definitions for “Malfunction Indicator Light” or “MIL” and “diagnostic trouble code” or “DTC” as these terms are used within this subchapter. The proposed definition of malfunction indicator light is identical to the existing definition of the term at N.J.A.C. 7-27B-5.1. The proposed definition of diagnostic trouble code is identical to that proposed at N.J.A.C. 7:27-14.1. The malfunction indicator light and the diagnostic trouble code operate in a gasoline-fueled motor vehicle in the same way as described in the summary of amendments to N.J.A.C. 7:27-14.1, above.

The Department proposes to replace the definition of “Division of Motor Vehicles” or “DMV” with a definition of “Motor Vehicle Commission” or “MVC,” and relocate it alphabetically, to reflect the change in that agency from a division within the New Jersey Department of Transportation to an independent commission. Wherever Division of Motor Vehicles or DMV appears in the existing rules, the Department proposes to replace it with Motor Vehicle Commission or MVC.

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The Department proposes to amend the definition of “EPA Memorandum 1A” to reflect the change in the name of the “Bureau of Transportation Control” to the “Bureau of Motor Vehicle Inspection and Maintenance” within the Department. Wherever Bureau of Transportation Control appears within the existing rules, the Department proposes to replace it with Bureau of Motor Vehicle Inspection and Maintenance.

The Department proposes to amend the definition of “gasoline-fueled” in order that it applies to hybrid vehicles that may use a gasoline engine for only part of their motive power.

The Department proposes to delete the definitions for “loaded vehicle weight” and “low mileage vehicle.” These terms are used only in reference to test procedures or standards that are proposed to be deleted from the subchapter.

The Department proposes to amend the definition of “motor vehicle testing equipment” to correct cross references.

The Department proposes to amend the definition of “on board diagnostics” to cite specific California and Federal regulations that require motor vehicle manufacturers to equip vehicles with standardized computerized diagnostic systems. The reference to 1996 and newer vehicles is proposed to be deleted. On board diagnostics have been installed on a larger population of vehicles than the Department originally identified as candidates for OBD inspection requirements when this definition was first adopted. The Department is proposing to expand OBD testing to light-duty diesel vehicles and may in the future further expand the list of vehicle types subject to OBD testing. At this time, the Department’s intention is to create a

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more generic and widely applicable OBD definition to encompass both current and future OBD testing requirements.

N.J.A.C. 7:27-15.3 General public highway standards

The Department proposes at N.J.A.C. 7:27-15.5 and 15.6 to delete existing test procedures and standards that refer to the measurement of oxides of nitrogen. This exhaust gas will no longer be measured as part of the inspection process. The only inspection test that measures oxides of nitrogen is the ASM5015 test which the Department is proposing to delete. Therefore, the Department proposes to amend N.J.A.C. 7:27-15.3(b) to remove oxides of nitrogen from the general public highway standard.

As part of the new I/M program design, the State made a decision to remove the existing repair cost waiver option for emissions compliance. This option allows motorists whose vehicles do not meet exhaust or OBD emissions standards to receive a waiver, valid for one inspection cycle, upon proof of compliance with waiver requirements. The waiver process was originally implemented to relieve some motorists from the excessive cost of repairs necessary for their vehicles to comply with the then new ASM5015 test. The ASM5015 test subjects vehicles to a loaded dynamometer-based test that is more stringent than an idle test. In order to qualify for a waiver, the vehicle must pass an idle exhaust emissions test. Historical waiver rates have been 0.1 percent or less of initial exhaust emission failures. This typically represents fewer than 300 vehicles per year.

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The waiver was implemented as an alternative to the ASM5015 test. Because the Department is proposing to eliminate the ASM5015 test procedure at N.J.A.C. 7:27B-5.5 and replace it with a variation of the idle test, the waiver is no longer necessary. Accordingly, the Department proposes to amend N.J.A.C. 7:27-15.3(c) to remove the waiver provision.

N.J.A.C. 7:27-15.5 Motor vehicle inspections

The Department proposes to amend, at N.J.A.C. 7:27-15.5(b), the inspection frequency for motor vehicles subject to the school bus inspection program. To maintain consistency with the MVC's proposed amendments to N.J.A.C. 13:20-30, the Department proposes to change the inspection frequency for school buses from semi-annual to annual. This is not projected to have any impact on failure rates of these vehicles or on the environmental impact of the inspection program. Changing the frequency of inspection does not impact failure rates, which is the probability of failure. The probability remains the same. If a vehicle has a condition that will cause it to fail inspection, it will fail, whether the inspection is annual or semi-annual. The environmental impact as a result of the reduction in frequency of testing school buses is too small for the Department to measure or model.

At N.J.A.C. 7:27-15.5(d), the Department proposes to remove the option to comply with inspection requirements via waiver, as discussed above regarding N.J.A.C. 7:27-15.3.

At N.J.A.C. 7:27-15.5(f)4, the Department proposes to amend the model year applicability of the gas cap test to include only model years 2000 and earlier gasoline-fueled

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motor vehicles. The Department tests the gas cap to determine whether gasoline vapors from the fuel tank could leak from the gas cap into the air, which results in air pollution. Under the existing rules, the State subjects all gasoline-fueled vehicles of any model year to a gas cap test. In practice, gas cap testing is limited to model year 1971 and newer vehicles, as earlier vehicles did not have sealed gas caps or their gas caps are not adaptable to the testing apparatus.

The Department believes that this transition to more limited gas cap testing is appropriate, based on changes in vehicle technology. Early OBD systems (model year 1996 to 2000) developed by motor vehicle manufacturers were not able to reliably detect malfunctioning evaporative emissions system components. By model year 2001, the vehicle manufacturers had refined their OBD systems and tighter evaporative emissions standards were imposed by the USEPA. The Department expects that model year 2001 and newer vehicles can rely on the OBD system to indicate an evaporative system malfunction, which includes gas cap failure.

For calendar year 2007, the gas cap failure rate for model year 2000 and earlier vehicles was 2.5 percent. During the same time, the gas cap failure rate for model year 2001 and newer vehicles was 1.8 percent. In 2007, over 17,000 model year 2001 and newer vehicles failed the gas cap test. If the gas cap testing were eliminated for model year 2001 and newer vehicles, as proposed, those vehicles in that age range that would have failed the gas cap test under the existing rules would not be subject to the test. However, the Department anticipates that the OBD system for most of those vehicles would indicate a malfunction of the evaporative system, resulting in a failed inspection; thus, the increase in emissions as a result of eliminating the gas cap test for those vehicles would be limited, as discussed in the Environmental Impact below.

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At N.J.A.C. 7:27-15.5(g), the Department proposes to delete obsolete language regarding the phase-in of OBD testing. Mandatory OBD testing has been fully implemented since January 2004.

At N.J.A.C. 7:27-15.5(g)2, the Department proposes replacing both the ASM5015 and 2500 RPM tests with the two speed idle (TSI) test. This is one of the more significant I/M program infrastructure changes proposed, though it has an impact on a decreasing minority of vehicles. The ASM5015 test is the default exhaust emissions test for model year 1981 through 1995 light-duty gasoline-fueled vehicles, which represent less than one third of the New Jersey vehicle population. It involves operation of the vehicle on a dynamometer that simulates driving conditions by loading the engine and drivetrain through the drive wheels while exhaust emissions are sampled and measured by an analyzer. The 2500 RPM test is used to measure exhaust emissions while the engine is held at a constant speed of 2500 RPM, but does not load the vehicle drivetrain or utilize a dynamometer. The 2500 RPM test is used as an alternative to the ASM5015 for certain vehicles that are incompatible with dynamometer testing, such as those with nondisengageable traction control or all wheel drive. The use of dynamometers for vehicle emissions testing is being phased out nationally and dynamometer parts and equipment are becoming increasingly more difficult and expensive to acquire and maintain.

The TSI test is based upon a combination of an idle test mode and a 2500 RPM test mode. In both modes the vehicle engine is operated with the transmission in park or neutral, and a dynamometer is not required. The vehicle must pass the exhaust emission standards for both the idle and 2500 RPM test modes in order to pass a TSI test. The TSI test uses well established

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equipment and test methods, and the equipment is significantly less expensive to obtain and maintain. The anticipated vehicle emission failures are discussed below at the Summary of proposed amended N.J.A.C. 7:27-15.6..

As it proposes in N.J.A.C. 7:27-15.3, and for the same reasons discussed above, the Department proposes to eliminate the option to comply via waiver at N.J.A.C. 7:27-15.5(h).

N.J.A.C. 7:27-15.5(i) prescribes the on-road inspection requirements. The Department proposes to amend this subsection to conform to the proposed amendments to the periodic inspection requirements discussed above. This includes replacing the ASM5015 and 2500 RPM tests with the TSI test and changing the applicability of the gas cap test. In addition, a reference to the Director of DMV is amended to instead reference the Chief Administrator of MVC.

At N.J.A.C. 7:27-15.5(l), the Department is proposing to remove the IM240 test as a test method for program evaluation. The Department previously deleted most references to the IM240 test procedure because the IM240 emissions test was not a required test in New Jersey's enhanced I/M program. (See 34 N.J.R. 1811(a), 35 N.J.R. 429(a).) The test was performed only to evaluate the effectiveness of the program, as required at 40 CFR 51.353. The equipment required to perform an IM240 test is expensive and difficult to maintain and requires specially-trained inspectors to operate it. The State will not retain any equipment for performing the IM240 test in the new I/M program. If alternative test methods suitable for evaluating the effectiveness of the program become available for use, the State will consider their feasibility for this application in order to continue to report program effectiveness to the USEPA.

The Department also proposes to amend the section to update cross references.

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N.J.A.C. 7:27-15.6 Motor vehicle inspection standards

The Department proposes to amend N.J.A.C. 7:27-15.6(b) to remove reference to oxides of nitrogen. This exhaust gas will no longer be measured as part of the inspection process. The only inspection test that measures oxides of nitrogen is the ASM5015 test which the Department is proposing to delete.

The Department proposes to amend Tables 1 and 2 to remove reserved portions of the tables that referred to exhaust emission standards for vehicles operated on a fuel other than gasoline, which portions the Department proposed in 1995. The Department has reserved these standards in an effort to address the issue of possible false failures of alternatively-fueled vehicles. At that time, there was some question whether the alternatively-fueled vehicles may mistakenly be identified as high emitters of reactive hydrocarbons and, consequently, fail the exhaust test. The Department reserved standards for alternatively-fueled vehicles until standards designed for non-methane hydrocarbons could be developed. (See 27 N.J.R. 2752(a), 27 N.J.R. 3806(a).) The Department was never required to develop different exhaust emission standards for alternative fuel vehicles because the need did not arise. The motor vehicle testing equipment used in the I/M program since 1999 has the ability to automatically adjust exhaust gas measurements based on fuel type.

The Department proposes to amend Table 2 to replace standards for the 2500 RPM test with standards for the TSI test. The TSI test standards proposed are identical to those prescribed by the USEPA at 40 CFR 85.2203 and 2204, and used nationally, and are also identical to the

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idle test standards the Department uses for model year 1981 and newer vehicles, as set forth in N.J.A.C. 7:27-15.6(b), Table 1, Exhaust Emission Standards for the Idle Test; LDGVs and LDGTs Powered by Gasoline. This proposed amendment will have an impact on exhaust emission test failure rates for model year 1981 through 1995 vehicles. Recent inspection data show that the failure rate for the ASM5015 test averages 12 percent with individual model year rates as high as 33 percent for 1981 vehicles and as low as four percent for 1995 vehicles. The Department projects an average failure rate for the TSI test, using these proposed standards, of five percent with a high failure rate of 18 percent for 1981 vehicles and a low failure rate of three percent for 1995 vehicles. This projected reduction in vehicle failures does result in some loss of emission reductions from those vehicles subject to the TSI test. The Environmental Impact below contains a detailed analysis of the emission reductions from the proposed amendments to the I/M program.

The Department proposes to delete N.J.A.C. 7:27-15.6(b)3, including Tables 3 and 4, and recodify subsequent paragraphs. N.J.A.C. 7:27-15.6(b)3 and the tables contain standards for the ASM5015 test, which is proposed for deletion and explained elsewhere in this summary.

Existing N.J.A.C. 7:27-15.6(b)4, which the Department proposes to renumber as N.J.A.C. 7:27-15.6(b)3, contains failure criteria for the OBD test procedure. Proposed amended N.J.A.C. 7:27-15.6(b)4iv clarifies that readiness criteria apply only to non-continuous monitors. The continuous monitors are, by design, expected to always be ready. Malfunctions of the continuous monitors are addressed by proposed new N.J.A.C. 7:27-15.6(b)4v, discussed below. Continuous monitors should never display a result of not-ready on a properly functioning

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vehicle. Therefore, only non-continuous monitors need to be counted toward readiness criteria. The number of readiness monitors that represent a failure in accordance with 40 CFR 51.357 (which is incorporated by reference into the existing rule) is three or more for model year 1996 to 2000 vehicles and two or more for model year 2001 and newer vehicles. The existing rule improperly states that the number of monitors must exceed three and two, respectively, to represent failure. By amending the rule to say “equals or exceeds” three and two, respectively, this misstatement is corrected.

Proposed new N.J.A.C. 7:27-15.6(b)4v requires that all continuous readiness monitors must be supported and ready in order for a vehicle to pass the OBD test. The USEPA and California Air Resource Board requirements for OBD systems on vehicles specify that the continuous OBD monitors must always be implemented and functional (i.e., supported). Since the OBD test was fully implemented in 2004, the Department and MVC have observed that some vehicles are able to pass the OBD test with most or all readiness monitors unsupported. This can happen because the existing OBD readiness failure criteria count only the total number of not ready monitors and ignores unsupported monitors. However, a vehicle that displays continuous readiness monitors as unsupported is clearly in a malfunctioning condition. In a normally functioning vehicle, the continuous readiness monitors should always be supported and ready; accordingly, the Department proposes to amend the rules to include that as a condition necessary to pass the OBD test. The Department projects that this proposed amendment may impact up to 10,000 vehicles per year.

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Under proposed new N.J.A.C. 7:27-15.6(b)4vi, a vehicle cannot be considered to have passed the OBD test if the Malfunction Indicator Lamp (MIL) is illuminated while the vehicle engine is running. The Department projects that this proposed new requirement would impact 0.05 percent of the inspected vehicle population and result in about 1,500 new OBD failures per year. These vehicles, whose MIL is illuminated, would be allowed to pass the OBD test under the existing rules.

Proposed amendments to N.J.A.C. 7:27-15.6(b)4viii change the criteria for those vehicles initially failing the OBD test for a problem related to the catalytic converter. A certain range of diagnostic trouble codes returned from the vehicle OBD system indicates a failure of the catalytic converter. When a vehicle that has this type of OBD failure returns for reinspection, it is treated differently from vehicles that did not initially have a catalytic converter failure. One of the readiness monitors on the vehicle's OBD system examines the function of catalytic converter. If a vehicle that initially failed for a catalyst-related problem returns for reinspection with the catalyst monitor not-ready, the State cannot determine if the catalyst-related problem was properly repaired until the catalyst monitor reports via the OBD system as ready. For brevity, the State refers to vehicles subject to this condition as a "catalyst retest" scenario.

Under existing rules, vehicles in this scenario are subject to an ASM5015 test to confirm that exhaust emission readings do not exceed applicable standards. The ASM5015 test helps the State to confirm proper catalyst function. Since the Department is proposing to discontinue the ASM5015 test, this mechanism will no longer be available. The TSI test proposed to replace the ASM5015 test will not effectively test catalyst function. Therefore, the Department proposes to

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amend the catalyst retest criteria to require that the catalyst monitor be ready upon reinspection.

Otherwise, the vehicle would fail the OBD test. This proposed amendment would potentially impact up to 7,000 vehicles per year. Currently, of the vehicles meeting the unique catalyst retest condition and receiving an ASM5015 test, most successfully pass the ASM5015 test.

Under the proposed amended rules, those vehicles would fail the OBD test and be required to return for reinspection with the catalyst monitor ready in order to pass the OBD test.

The proposed amendments to N.J.A.C. 7:27-15.6(e) and (f) remove the existing exemption from exhaust emission testing for vehicles powered by fuels other than gasoline. The Department proposes that alternative fuel vehicles be subject to the same standards as all other gasoline-fueled vehicles. This includes those alternative fuel vehicles subject to exhaust emissions testing and OBD testing. In 2007, approximately 1,900 alternative fuel vehicles were exempted from emission inspection. Most of these vehicles were model year 1996 or newer and would be subject to an OBD test under these proposed rules. The Department expects that this proposed amendment could result in approximately 360 additional vehicle failures each year.

The Department proposes to amend this section to update cross references.

N.J.A.C. 7:27-15.7 Prohibition of tampering with emission control apparatus

The Department proposes amending N.J.A.C. 7:27-15.7 to update the California Air Resources Board's mailing address and add a website.

N.J.A.C. 7:27-15.8 Idle standard

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At N.J.A.C. 7:27-15.8(b), the Department proposes to amend the idle standard exemptions for gasoline-fueled vehicles to align the exemptions with recent amendments to the rules for diesel-powered vehicles at N.J.A.C. 7:27-14. (See 38 N.J.R. 3728(b), 39 N.J.R. 2531(a).) Consistency in the rule text in both subchapters will make the Department's idle standards clearer to the public and assist in more uniform enforcement.

N.J.A.C. 7:27-15.8(b) contains a list of exemptions to the three-minute idling restriction. To the exemption at N.J.A.C. 7:27-15.8(b)1, the Department proposes to add a limited exception for autobuses that are actively discharging or picking up passengers. In any 60 minute period the bus may idle for 15 consecutive minutes, which the Department believes is sufficient time for passengers to embark or disembark. The Department intends to prohibit the current practice of bus idling while passengers are not on board. This proposed amendment makes the rule consistent with N.J.A.C. 7:27-14.3(a)2, which applies to diesel buses.

Existing N.J.A.C. 7:27-15.8(b)2 exempts all motor vehicles stopped in a line of traffic from the idling restriction. The Department proposes to amend this exemption, to be consistent with recent amendments to N.J.S.A. 39:3-70.2, the Motor Vehicle Code, which allow vehicles other than school buses to idle when they are stop and go in a queue of motor vehicles. (See P.L.2005, c.219.) The exception would not apply to school buses in a stop and go queue, such as lined up to pick up students after school, which means they would have to comply with the 3 minute idling limit. A school bus could, however, idle in stopped traffic on a highway. Although the Motor Vehicle Code does not apply to the Department, it is appropriate that the Department amend its rules to conform to the legislation, in order that the idling restrictions are

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consistent. Moreover, the Department believes that special attention to school buses is warranted due to the fact that exposure to school bus exhaust is experienced by children, who are a sensitive population at risk for increased adverse health impacts from air pollution. This proposed amendment makes the rule consistent with N.J.A.C. 7:27-14.3(b)1, which applies to diesel-powered motor vehicles.

The Department proposes to amend N.J.A.C. 7:27-15.8(b)3 to clarify exemptions to the three-minute idling limit for vehicles whose engines are used for tasks other than propulsion, passenger compartment heating or passenger compartment air conditioning. This exemption has proven to be very difficult for the regulated community to interpret. Accordingly, the Department is proposing to amend the exemption to provide examples of the types of mechanical operations to which the exemption applies, but not change the substance of the exemption. This amendment makes the rule consistent with N.J.A.C. 7:27-14.3(b)2, which applies to diesel-powered motor vehicles.

Existing N.J.A.C. 7:27-15.8(b)5 exempts an emergency vehicle in an emergency situation from the idling restriction; however, it has not been clear in the past what types of vehicles are considered “emergency” and what is the scope of an emergency situation. As a result, owners and operators of vehicles that are not actually emergency vehicles, or that are not actively providing emergency services, have mistakenly tried to use this exemption. An example of a common misapplication of the exemption would be a public utility dump truck. There may be limited situations in which the dump truck is pressed into service in an emergency, in which case it would qualify for the exception to the idling restriction; however, in most circumstances, the

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dump truck would not qualify for the exception. Heavy rescue and HAZMAT response vehicles, on the other hand, are “emergency vehicles”; however, they would not qualify for the exception unless they are actively performing emergency services. The Department intends that the amendment will reduce unnecessary idling by vehicles not in an emergency situation. This proposed amendment makes the rule consistent with N.J.A.C. 7:27-14.3(b)4, which applies to diesel-powered motor vehicles.

Misinterpretation of existing N.J.A.C. 7:27-15.8(b)6 which allows a motor vehicle while it is being repaired to idle longer than three minutes, has resulted in unnecessary idling when repairs are performed that do not require the engine to run. Therefore, the Department proposes to amend the exemption, to state that the exemption applies only when repairs require the engine to be running. For example, a repair to a window or tire does not require the engine to run. Adjustment of the engine idle, on the other hand, might require the engine to be running during the adjustment. This proposed amendment makes the rule consistent with N.J.A.C. 7:27-14.3(b)5, which applies to diesel-powered motor vehicles.

Existing N.J.A.C. 7:27-15.8(b)7 allows gasoline-powered motor vehicles to idle while they are connecting or detaching from a trailer. The Department proposes to delete N.J.A.C. 7:27-15.8(b)7, because attaching or detaching a trailer will be covered by the exemption of N.J.A.C. 7:27-15.8(b)3, which allows a vehicle to idle if the engine is necessary for mechanical operation other than propulsion. The Department deleted a similar provision applicable to diesel-powered motor vehicles at former N.J.A.C. 7:27-14.3(b)7 in its adoption published on July 2, 2007 (38 N.J.R. 3728(b), 39 N.J.R. 2531(a)).

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Existing N.J.A.C. 7:27-15.8(b)8 exempts a sleeper-berth equipped gasoline-powered motor vehicle from the three-minute idling limit when the sleeper berth is being used for sleeping or resting, in a non-residentially zoned area. Under proposed amended N.J.A.C. 7:27-15.8(b)8, this exemption does not apply to vehicles equipped with functional auxiliary power units. An auxiliary power unit can provide the same functions, such as cabin heating and engine warming as idling the vehicle's primary engine while using less fuel and producing fewer emissions or air contaminants. If the vehicle is equipped with an auxiliary power unit, there is no need to idle the vehicle's primary engine to provide the same functions.

APPENDIX

The Department proposes to replace the existing test applicability table in the Appendix with a revised and expanded table that includes proposed amendments to the exhaust emission tests. The proposed table conforms to the proposed amended rules and identifies the tests to which a gasoline-fueled vehicle is subject, including existing tests that are not identified in the existing Appendix.

N.J.A.C. 7:27A-3. Civil Administrative Penalties and Requests for Adjudicatory Hearings

N.J.A.C. 7:27A-3.10 Civil administrative penalties for violation of rules adopted pursuant to the Act

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In conjunction with the proposed amendments to N.J.A.C. 7:27-15.8 to harmonize the gasoline vehicle idle standard to the idle standard adopted for diesel vehicles, the Department is also proposing to amend the civil administrative penalties for violations of N.J.A.C. 7:27-15.8. The penalties proposed at N.J.A.C. 7:27A-3.10(m)15 are identical to those adopted for diesel vehicles at N.J.A.C. 7:27A-3.10(m)14 as they pertain to violations of the idle standard.

N.J.A.C. 7:27B-4 Air Test Method 4: Testing Procedures for Diesel-Powered Motor Vehicles

N.J.A.C. 7:27B-4.1 Definitions

The Department is proposing to add new definitions that pertain to OBD testing. These new terms are “on board diagnostics” or “OBD,” “data link connector” or “DLC,” “key on engine off” or “KOEO,” “key on engine running” or “KOER,” “malfunction indicator light” or “MIL,” “readiness” and “readiness monitors.” The proposed definitions are identical to the existing, or proposed amended definitions of the terms at N.J.A.C. 7:27-15 and N.J.A.C. 7:27B-5, relating to OBD diagnostic testing of gasoline-fueled vehicles.

The Department is proposing a new definition for “diesel emissions testing equipment” and to amend “emission control apparatus” as discussed at section N.J.A.C. 7:27-14.1 above.

The Department is proposing to add a definition of “retrofit device,” a term is used in the proposed amended definition of emission control apparatus. The proposed definition of retrofit device is identical to the amended definition proposed at N.J.A.C. 7:27-14.1.

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The Department is proposing to amend the definition of “smokemeter” to reflect the change in how a smokemeter will be used under the restructured I/M program. In the existing diesel I/M program, standalone smokemeters are used to perform smoke opacity measurements and these smokemeters print a report that serves as the primary test record. The new I/M program will use the same method of equipment configuration for the diesel test equipment as has been used for gasoline test equipment since 1999. That is, the smokemeter will no longer be a standalone instrument, but part of an analyzer system that includes a computer that records results and communicates with the State database in order to complete the inspection transaction.

N.J.A.C. 7:27B-4.2 General instructions for all tests

N.J.A.C. 7:27B-4.2 provides general instructions for emissions tests (subsection (a)), equipment requirements for smoke opacity tests (subsection (b)), equipment specifications (subsection (c)), and instructions for obtaining a list of approved test equipment (subsection (d)). As a practical matter, existing N.J.A.C. 7:27B-4.2 applies only to heavy-duty diesel vehicles and diesel buses, because the existing subchapter does not specify tests for light-duty vehicles. In light of proposed new N.J.A.C. 7:27B-4.7 and 4.8, which will apply to light-duty vehicles, it is necessary that the Department amend N.J.A.C. 7:27B-4.2 to separate the section so that subsection (a) applies only to heavy-duty diesel vehicles and diesel buses, and proposed new subsection (b) applies only to light-duty vehicles. Existing subsections (b), (c) and (d) are proposed to be renumbered.

At proposed amended N.J.A.C. 7:27B-4.2(a)3, the Department is proposing to lower the threshold for operating temperature from 70 degrees to 60 degrees as measured via oil

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temperature, and permit the operating temperature determination by measurement of oil temperature or water temperature instead of both. The Department has determined that lowering the acceptable operating temperature to 60 degrees will not impact the accurate measurement of smoke opacity. Giving inspectors the ability to use oil or water temperature measurements offers additional flexibility that makes the test easier to perform.

Proposed amendments to N.J.A.C. 7:27B-4.2(a)6 provide additional instruction regarding the ambient temperature and humidity test conditions. Limitations on acceptable temperature and humidity conditions are imposed by the Society of Automotive Engineers for smoke opacity measurement. Proposed amended N.J.A.C. 7:27B-4.2(a)9 refers to exhaust aftertreatment systems, which are emission control apparatus on later model diesel vehicles. The proposed amendment instructs the inspector to consider the mode of the aftertreatment system, and whether the exhaust temperature is high. Attempting to conduct a smoke opacity test while the vehicle is regenerating the aftertreatment system could result in inaccurate opacity measurements and the high exhaust temperatures could damage the test equipment and pose a safety hazard to inspectors.

Proposed amended N.J.A.C. 7:27B-4.2(a)10 reflects the Department's proposed amendment to N.J.A.C. 7:27-14, in the pending proposal of the Diesel Cutpoint rules, 40 N.J.R. 3541(a), to prohibit smoke of any color, as discussed above.

The Department is proposing to delete N.J.A.C. 7:27B-4.2(a)11 and 12. This proposed deletion is consistent with other proposed amendments that alter the manner in which diesel emissions test equipment will be approved by the Department. In the new I/M program, one

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vendor will provide all test equipment to all types of test facilities. The Department will work directly with that vendor to develop test equipment that satisfies all applicable specifications. Independent suppliers of test equipment will no longer be permitted to submit equipment to the Department for approval. As such, detailed specifications are not needed in this subchapter. The test equipment requirements will be addressed in specifications developed jointly by the Department and the equipment vendor, rather than specified in regulation

The Department is proposing new N.J.A.C. 7:27B-4.2(b) to establish general instructions for light-duty diesel vehicle testing. These instructions are substantially similar to the general instructions at N.J.A.C. 7:27B-5.2(a), applicable to gasoline-fueled vehicles, except that the proposed N.J.A.C. 7:27B-4.2(b) does not include instructions not relevant to light-duty diesel vehicles. Gasoline vehicles are subject to exhaust emissions testing using an exhaust sample probe and diesel vehicles are not. With respect to the parameters that are important to emissions testing in an I/M program, the instructions for inspecting light-duty diesel vehicles and light-duty gasoline vehicles are similar.

Proposed amended N.J.A.C. 7:27B-4.2(c) changes “smoke opacity” to “emissions” to broaden the scope of emissions testing for diesel vehicles for both current and future test methods. The Department recognizes recent technology changes in diesel vehicle emission controls and test methods. The Department anticipates that smoke opacity will soon be supplanted or augmented by other emission test methods such as exhaust gas measurement and particulate measurement and this proposal includes the addition of on board diagnostics.

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Proposed amended N.J.A.C. 7:27B-4.2(c) also replaces “a smokemeter” with “diesel emissions testing equipment,” consistent with other amendments in this proposal.

Proposed amended N.J.A.C. 7:27B-4.2(d) replaces “motor vehicle emission testing equipment” with “diesel emissions testing equipment,” consistent with other amendments in this proposal.

Proposed amended N.J.A.C. 7:27B-4.2(e) contains new contact information for the Department.

N.J.A.C. 7:27B-4.3 Procedures for using a smokemeter to measure the smoke opacity of heavy-duty diesel vehicles and diesel buses

The Department is proposing to delete N.J.A.C. 7:27B-4.3(d), the visible black smoke screening test. With proposed new N.J.A.C. 7:27B-4.7 (the visible smoke test), the visible black smoke screening test is redundant and overly complicated. The simplified visible smoke test proposed at N.J.A.C. 7:27B-4.7 is required for testing light-duty diesel vehicles.

The Department is also proposing to delete previously reserved N.J.A.C. 7:27B-4.3(e).

N.J.A.C. 7:27B-4.4 Emission control apparatus, retrofit device and closed crankcase ventilation system examination procedure

The Department is proposing amendments to N.J.A.C. 7:27B-4.4(a) to expand the emission control apparatus examination to all emission control apparatus, not just aftertreatment devices. Generally, model year 1997 and newer diesel vehicles and engines have included more

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comprehensive emission control apparatus. The Department believes it necessary to expand this test procedure to encompass all emission control apparatus and to clarify that exhaust system components are included. Although emission control apparatus, by definition, should include exhaust system components, some inspectors do not associate the exhaust system with emissions controls. This proposed amendment may result in a slight increase in emissions failures for the heavy-duty diesel vehicles to which it applies because a deliberate examination of exhaust system components might reveal non-compliant components that would have been previously overlooked. The Department also proposes to update a cross-reference in subsection (a).

The Department is proposing amendments to N.J.A.C. 7:27B-4.4(b) to expand the emission control apparatus examination failure criteria to include all emission control apparatus and exhaust system components, rather than just exhaust aftertreatment devices.

N.J.A.C. 7:27B-4.6 Specifications for diesel emissions testing equipment for determining compliance with N.J.A.C. 7:27-14

The Department is proposing to amend N.J.A.C. 7:27B-4.6 by removing the specific equipment requirements that will not apply in the new I/M program, and adding a new requirement for OBD equipment. Accordingly, the section title is proposed for amendment to better reflect the amended section scope and match the proposed definition for diesel emissions testing equipment. As discussed in various parts of this proposal, diesel emissions testing will no longer be conducted using a standalone smokemeter. As such, the functions of the smokemeter

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will be absorbed into the larger set of equipment proposed as diesel emissions testing equipment. The manner in which the diesel emissions testing equipment is proposed to be described parallels the manner in which gasoline vehicle test equipment has been described in the existing I/M program in regulations already adopted. This change in equipment specification is consistent with the new I/M program design that brings all vehicle inspection data together in to the same data management system. With the inclusion of OBD testing for diesel vehicles, the Department is proposing to add equipment specifications for OBD test equipment at new N.J.A.C. 7:27B-4.6(b). The proposed new rule incorporates 40 C.F.R. 85.2231 by reference. 40 C.F.R. 85.2231 describes the basic hardware and electronic communication requirements for OBD testing equipment.

N.J.A.C. 7:27B-4.7 Procedures for the visible smoke test

As discussed in the Summary of N.J.A.C. 7:27-14.5 above, the Department is proposing new rules to establish a visible smoke test for all model years of light-duty diesel vehicles. The proposed visible smoke test procedure at N.J.A.C. 7:27B-4.7 is substantially similar to the visible smoke test procedure for gasoline vehicles at N.J.A.C. 7:27B-5.3(a), except “diesel vehicle” is substituted for “gasoline-fueled motor vehicle.” The test procedure is discussed above in the Summary of N.J.A.C. 7:27-14.5.

N.J.A.C. 7:27B-4.8 Procedures for the on board diagnostics inspection

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As discussed in the Summary of N.J.A.C. 7:27-14.5 above, the Department is proposing new rules to establish an OBD test for model year 1997 and newer light-duty diesel vehicles. The OBD test procedure proposed at N.J.A.C. 7:27B-4.8 is substantially similar to the OBD test procedure for gasoline vehicles at existing N.J.A.C. 7:27B-5.7, except some of the corrections proposed at N.J.A.C. 7:27B-5.7 are also proposed here. The test procedure is discussed regarding N.J.A.C. 7:27-14.5 above.

N.J.A.C. 7:27B-5 Air Test Method 5: Testing Procedures for Gasoline-Fueled Motor Vehicles

N.J.A.C. 7:27B-5.1 Definitions

The Department proposes to amend the definition of “gasoline-fueled” to clarify that it applies to hybrid vehicles that may use a gasoline engine for only part of their motive power.

The Department proposes to amend the definition of “motor vehicle testing equipment” to correct cross references.

The Department proposes to amend the definition of “on board diagnostics” for the reasons discussed in the Summary of N.J.A.C. 7:27-15.1, above. The proposed definition is identical to that proposed at N.J.A.C. 7:27-14 and 15, and N.J.A.C. 7:27B-4.

N.J.A.C. 7:27B-5.2 General instructions for all tests

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The Department proposes to delete N.J.A.C. 7:27B-5.2(a)4iii, since it references the ASM5015 test procedure that the Department is also proposing to delete. The Department proposes to amend N.J.A.C. 7:27B-5.2 to update cross references and contact information.

N.J.A.C. 7:27B-5.4 Procedures for the two speed idle test

The Department is proposing to amend the title of N.J.A.C. 7:27B-5.4 to refer to the two-speed idle (TSI) test, rather than the 2500 RPM test. The Department is proposing to delete N.J.A.C. 7:27B-5.4(a)1 through 8, which are the procedures for the 2500 RPM test that is being discontinued. N.J.A.C. 7:27B-5.4(a) is proposed to be amended to incorporate by reference 40 CFR 85.2215.

The Federal rule at 40 CFR 85.2215 sets forth the requirements for the two speed idle test, or TSI. The TSI is a tailpipe test, in which a probe is inserted into the tailpipe of a vehicle to collect a sample of the exhaust. The TSI test has two test modes. Exhaust gas measurements are made with the vehicle engine at idle (between 350 and 1100 RPM) and at high idle (between 2200 and 2800 RPM). Generally, each mode may run for a duration of 30 seconds up to 180 seconds depending upon the exhaust gas values and the results from previous modes. There are provisions for fast pass and fast fail that would shorten the test duration to a minimum of less than 30 seconds. The test equipment will determine whether or not the vehicle is emitting excess pollutants based on measurement of hydrocarbons and carbon monoxide.

Implementing the USEPA's TSI test procedure will minimize motor vehicle manufacturer emissions warranty compliance issues because the test is a Federally-approved

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emissions test with which motor vehicle manufacturers are required to comply. The TSI test equipment uses well-established and readily available hardware. Since the TSI test, or a slight variation, is widely used in other jurisdictions, software development for the motor vehicle testing equipment is not complicated by a unique test procedure.

N.J.A.C. 7:27B-5.5 Procedures for the ASM5015 test

The Department is proposing to repeal N.J.A.C. 7:27B-5.5, and renumber the remaining sections in the chapter. As discussed above, the Department is discontinuing the ASM5015 test, and replacing it with the TSI test.

N.J.A.C. 7:27B-5.6 Procedures for the on-board diagnostics inspection

The Department is proposing to amend the OBD test procedure at N.J.A.C. 7:27B-5.6 to include an additional step to check malfunction indicator light (MIL) condition while the vehicle engine is running. The Department also proposes to amend the test condition for a vehicle reinspected after an initial catalyst-related OBD failure. A more detailed discussion of these specific amendments to the OBD procedure and failure conditions is at the Summary of N.J.A.C. 7:27-15.6, above.

N.J.A.C. 7:27B-5.7 Procedures for the fuel cap leak test

Since the USEPA has not promulgated gas cap test equipment requirements at 40 C.F.R. 85.2227, the Department is proposing to remove the reference to these Federal regulations. The

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USEPA guidance document cited in existing text continues to be the appropriate reference to gas cap test equipment requirements.

N.J.A.C. 7:27B-5.8 Specifications for motor vehicle testing equipment for use in the New Jersey Enhanced Inspection and Maintenance Program

At N.J.A.C. 7:27B-5.8(a), the Department proposes to delete the reference to the 2500 RPM test and replace it with the TSI test, for the reasons discussed above. Accordingly, the reference to equipment requirements is amended to incorporate by reference 40 CFR 85.2225, Steady state test exhaust analysis system – EPA 91, which is the Federal regulation that prescribes minimum standards for TSI test equipment.

With the proposed deletion of the ASM5015 test procedure, the Department is also proposing to delete ASM5015 test equipment requirements at N.J.A.C. 7:27B-5.8(b).

Also, as discussed above with regard to N.J.A.C. 7:27B-5.7, the Department is proposing to remove the reference to 40 CFR 85.2227, since the USEPA has not promulgated gas cap test equipment requirements.

The Department proposes to amend the section to correct cross references.

Social impact

The proposed new rules and amendments are expected to have a positive social impact on the residents of New Jersey. The proposed rules continue the State's control of excess pollutants from motor vehicles. For gasoline-fueled vehicles, the major pollutants are the ozone

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precursors, volatile organic compounds (VOCs) and oxides of nitrogen (NO_x). For diesel vehicles, the proposed introduction of emissions testing of light-duty diesel vehicles is expected to reduce the excess emission of particulate matter and NO_x.

Ozone, to which NO_x and VOCs contribute, may result in a number of adverse health effects. Short-term exposure to ozone can irritate the respiratory system, causing coughing, throat irritation, and chest pain. Breathing may become more rapid and shallow than normal, thereby limiting a person's normal activity. Ozone also can lead to more asthma attacks that require a doctor's attention and the use of additional medication. Increased hospital admissions and emergency room visits for respiratory problems have been associated with ambient ozone exposures. Longer-term ozone exposure can inflame and damage the lining of the lungs, which may lead to permanent changes in lung tissue and irreversible reductions in lung function. A lower quality of life may result if the inflammation occurs repeatedly over a long time period, such as months, years, or a lifetime. People who are particularly susceptible to the effects of ozone include children and adults who are active outdoors, people with pre-existing respiratory diseases, such as asthma, and people with unusual sensitivity to ozone.

Fine particles are associated with a number of serious health effects, including premature mortality, aggravation of respiratory and cardiovascular disease, lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems, such as heart attacks and cardiac arrhythmia (www.epa.gov/ttn/naaqs/standards/pm/s_pm_index.html). The amended I/M program will help to prevent premature deaths, lost work and school days, and non-fatal heart attacks and hospital admissions by further limiting the emissions of fine particles.

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By testing vehicles, identifying those with excess emissions and requiring engine and emission control repairs, the inspection program reduces levels of harmful pollutants in the air. The Department has observed that vehicles subject to periodic emissions inspection tend to be better maintained overall. A vehicle engine that is properly tuned and maintained will combust fuel as efficiently as it was designed to and emit a minimum of pollutants. Better maintenance of vehicle engines will also reduce, to a lesser degree, other byproducts of fuel combustion, such as carbon monoxide and carbon dioxide. By promoting better motor vehicle maintenance, the I/M program results in improvements in fuel economy. This leads to increased energy efficiency and a reduction in greenhouse gases.

The reductions of air pollutants from the I/M program will help the State make progress toward the attainment of the National Ambient Air Quality Standard (NAAQS) for ozone and fine particulate matter (PM_{2.5}) and, therefore, improve air quality and help make the State a more healthful place to live. In this way the I/M program will provide a better quality of life for New Jersey citizens.

Economic Impact

The Department anticipates that the proposed new rules and amendments will have an economic impact on the residents and small businesses of New Jersey.

By furthering the State's goal of significantly reducing air contaminants, the proposed new rules and amendments will result in reduced human exposure to these contaminants, thereby reducing the substantial costs to the State and its citizens that are associated with air pollution, such as health care costs, missed days of work, and absences from school. Some of the financial

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benefits to the public include decreased medical care and hospitalization. Each incident of asthma has an expenditure of approximately \$30.00 to \$400.00 for treatment and/or hospitalization, depending on the severity of the asthma attack. These figures do not include the cost to the individual and family through decreased quality of life and the effect of early mortality on family members and to the individual. A further reduction in air contaminants, resulting from this proposed rulemaking, would help to reduce the number of individuals affected by this type of burden.

The proposed rules would require emission testing for light-duty diesel vehicles for the first time in the history of New Jersey's I/M program. Under the existing rules, light-duty diesel vehicles are inspected with the same frequency and at the same locations (Centralized Inspection Facilities and Private Inspection Facilities) as light-duty gasoline vehicles, except light-duty diesel vehicles receive a safety-only inspection. The Department is not proposing to change the frequency or location of light-duty diesel vehicle inspections. Nor will the proposed rules cause any light-duty diesel vehicles to be inspected that were not previously subject to inspection.

The Department projects that over 360 light-duty diesel vehicles may fail an emissions test each year. These failures will result in a slight increase in reinspection volume as the failed light-duty diesel vehicles return to Centralized Inspection Facilities and Private Inspection Facilities for reinspection after repairs. This will have a negative economic impact on persons who own, operate and maintain light-duty diesel vehicles, because they may have to pay for repairs to eliminate visible smoke and address other failures that generate OBD fault codes.

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The proposed elimination of the ASM5015 test, and concurrent replacement with a TSI test, will result in a significant reduction in the cost of test equipment. The current ASM5015 inspection analyzer with a dynamometer can cost in excess of \$50,000, including installation costs for the dynamometer. The new OBD and TSI inspection analyzer will cost less than \$9,000, and will be a self-contained roll-around unit that does not permanently occupy valuable floor space in a garage bay as the current dynamometer does. The reduced cost of inspection equipment is a positive economic impact for Private Inspection Facilities.

The proposed elimination of the ASM5015 test, and concurrent replacement with a TSI test, will also result in a reduced failure rate for model year 1981 through 1995 vehicles, as discussed in the Summary of N.J.A.C. 7:27-15.6, above. This will be a positive economic impact for owners of those vehicles, who will spend less money on emission-related repairs.

To the extent that the proposed rules cause an increase in the emission failure rates of some vehicles, this effect is offset somewhat by an increase in fuel efficiency that will result from proper repair of the malfunctioning vehicles. Although the existing emission inspection program has the effect of encouraging vehicle owners to maintain their vehicles to pass inspection, these proposed rules will impose more stringent inspection requirements on some vehicles. The increased failures and subsequent repairs will result in decreased emissions of pollutants and an improvement in fuel economy.

Environmental Impact

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The proposed new rules and amendments are expected to have a positive impact on the environment. Although the proposed rules are expected to reduce a number of air contaminants, the primary focus of the Department's attainment strategy for the motor vehicle inspection program is ground-level ozone. In the presence of sunlight, volatile organic compounds (VOCs) and NO_x and other compounds in the ambient air react to form ozone.

In addition to causing adverse health effects, ozone adversely affects vegetation and ecosystems, leading to reductions in agricultural crop and commercial forest yields; reduced growth and survivability of tree seedlings; and increased plant susceptibility to disease, pests, and other environmental stresses. In long-lived species, these effects may become evident only after several years or even decades, and thus have the potential for long-term adverse impacts on forest ecosystems. Damage from ozone to the foliage of trees and other plants can also decrease the aesthetic value of ornamental species used in residential landscaping, as well as the natural beauty of the national parks and recreation areas.

The economic value of some welfare losses due to ozone can be calculated, such as crop yield loss from both reduced seed production, visible injury to some leaf crops, and visible injury to ornamental plants, while other types of welfare loss may not be fully quantifiable in economic terms, such as visibility impairment and reduced aesthetic value of trees growing in national parks. Visibility impairment is especially important in New Jersey, which has a Class 1 visibility area located at the Brigantine Wilderness area of the Edwin B. Forsythe National Wildlife Refuge.

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The proposed rules are expected to reduce the ground-level ozone precursors, VOCs and NO_x. For ease of presentation, in Table 1 below the emission reduction from the proposed rules, as compared to the existing rules, are represented as the sum of VOC plus NO_x and shown as the differential from the State's existing I/M program. For reference, the existing rules reduce approximately 9,855 tons per year of VOC plus NO_x

Table 1
Comparison of Emission Reduction from Proposed and Existing Rules

Program Elements	Emission Reduction from Proposed Rules Compared to Existing Rules (tons per year VOC and NO_x)
Proposed I/M program base design*	-76
Failing unsupported OBD readiness monitors	1306
Failing OBD with catalyst monitor not ready on retest	902
Emission testing of alternative fuel	46

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vehicles

LDDV ⁺ visible smoke testing	1
LDDV OBD testing	46
Total benefits for proposed I/M	2226

program

* Includes change of tailpipe test from ASM5015 to TSI; gas cap test exemption for newer vehicles; and elimination of repair cost waivers.

⁺ Light-duty diesel vehicles

Some of the proposed amendments result in an increase in emissions. The TSI test is less effective than the ASM5015 test at detecting excess exhaust emissions (particularly NO_x). Likewise, eliminating gas cap tests for newer vehicles results in a slightly reduced detection of excess VOC emissions. However, other proposed amendments provide a decrease in emissions compared to the existing rules. The net gain in emission reductions from the proposed rules is an additional 6.1 tons per day, or 2226 tons per year of VOC plus NO_x, in addition to the reductions resulting from the existing rules. Therefore, the proposed rules are approximately 23 percent more effective than the existing rules at reducing ozone precursors.

Federal Standards Statement

Executive Order No. 27(1994) and P.L. 1995, c. 65 require State agencies that adopt,

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readopt or amend State regulations that exceed any Federal standards or requirements to include in the rulemaking document a comparison with Federal law.

The proposed new rules and amendments to the Department's enhanced I/M program rules do not modify the program design so as to impose standards or requirements that exceed any Federal standards or requirements. (The Federal regulations that control establishment of enhanced I/M programs are set forth generally at 40 C.F.R. Parts 51 and 85.) Specifically, the Department is proposing to update the regulatory framework for the implementation of mandatory OBD inspections, and to continue exhaust emissions testing. The proposed program design does not exceed the Federal requirements set forth at 40 C.F.R. Parts 51 and 85, nor does this proposal impose standards that exceed Federal requirements for those standards provided by the USEPA. Accordingly, no Federal standards analysis is required.

Jobs Impact

The Department anticipates that the proposed new rules and amendments may create additional employment opportunities within New Jersey. As discussed in the Economic Impact above, the cost of the test equipment that Private Inspection Facilities must purchase will be substantially lower than is required under the existing rules. Consequently, the Department expects that more automotive facilities will become licensed Private Inspection Facilities which, in turn, will require additional licensed inspectors. Moreover, the proposed inclusion of light-duty diesel vehicle emissions testing in the I/M program may create a broader market for trained light-duty diesel vehicle repair technicians. Those light-duty diesel vehicles that fail inspection

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will require repairs or maintenance in order that they can pass. Trained technicians will be required in order to perform the repairs.

The increased demand for licensed Private Inspection Facility inspectors and trained light-duty diesel vehicle technicians may also produce additional demand for appropriate instructors at the schools and businesses that provide inspector and technician training.

Agricultural Industry Impact

The Department has evaluated the proposed new rules and amendments to determine the nature and extent of their impact on the agriculture industry.

The proposed new rules and amendments are expected to have no detrimental impact on the State's agriculture industry. Rather, these amendments will have a positive impact. As discussed in the Environmental Impact above, one of the environmental benefits expected to result from the proposed amendments and rules will be a reduction in emissions of NO_x and particulate matter, which accumulates in air and deposits in soil, as well as in water. According to the USEPA, these depositions can make lakes and streams acidic, change the nutrient balance in coastal waters and large river basins, deplete the nutrients in soil, damage sensitive forests and farm crops, and negatively affect the diversity of ecosystems. There will also be a reduction in particulate matter accumulation on agricultural growth. This reduction in accumulation will have a positive impact by reducing the damage to that growth that interferes with photosynthesis. The proposed rules would also result in the reduction of VOCs. Since VOCs and NO_x are precursors to ozone formation, decreases in emissions of these chemicals will also result in

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reduced ozone. This reduction in ozone will have a positive impact by reducing the damage to agriculture. In addition to the damage on the foliage of plants and trees, ozone interferes with a plant's ability to produce and store nutrients, which makes plants more susceptible to disease, insects, other pollutants, and harsh weather. According to the USEPA, this damage impacts annual crop production throughout the United States, resulting in significant losses, and injures native vegetation and ecosystems.

Regulatory Flexibility Analysis

As required by the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., the Department has evaluated the reporting, recordkeeping and other compliance requirements that the proposed new rules and amendments would impose upon small businesses. The Regulatory Flexibility Act defines the term "small business" as "any business which is a resident in this State, independently owned and operated and not dominant in its field, and which employs fewer than 100 full-time employees."

The small businesses most impacted by these proposed rules would be licensed Private Inspection Facilities and registered Emission Repair Facilities. Although the Department proposes to amend the specific test procedures and standards that Private Inspection Facilities use for vehicle testing, the proposed rules do not impose any additional reporting or recordkeeping requirements. Most of the inspection information is captured electronically by the inspection analyzer and automatically transmitted to the State's database. Since the cost of the

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inspection equipment will be significantly less with the tests proposed herein, as discussed in the Economic Impact above, the cost of compliance for Private Inspection Facilities will be reduced.

The cost of compliance for small businesses that are Diesel Emission Inspection Centers will increase. Diesel Emission Inspection Centers will be required to purchase new testing equipment for the proposed I/M program at a cost greater than their current equipment cost. On the other hand, recordkeeping requirements for the Diesel Emission Inspection Centers will decrease. Currently, the Diesel Emission Inspection Centers have to maintain paper records of the heavy-duty diesel vehicle inspections and fill out forms by hand. The proposed I/M system will include computerized electronic inspection data capture for all Diesel Emission Inspection Center inspections.

The proposed deletion of the repair cost waiver at N.J.A.C. 7:27-15.3(c) and 7:27-15.5(d)2 will eliminate the need for small businesses to collect and retain vehicle repair receipts for the purpose of inspection.

For small businesses that are registered to perform emission-related repairs, the emission testing of light-duty diesel vehicles will have a positive impact as a result of the additional repairs that will be required. That is, those businesses will benefit from the additional emission-related repairs generated by the failure of some light-duty diesel vehicles.

To the extent that some small businesses may be owners of light-duty diesel vehicles, there may be an increased cost of compliance for those businesses under the proposed rules as light-duty diesel vehicles will require an emissions inspection. As some light-duty diesel

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vehicles are expected to fail emissions inspection and need maintenance or repair, the cost of repair will be borne by the vehicle owner.

To the extent that some small businesses may be owners of light-duty gasoline vehicles of model year 1981 through 1995, there may be a decreased cost of compliance as a result of the projected reduction in failure rate of those vehicles.

Smart Growth Impact

Executive Order No.4 (2002) requires State agencies that adopt, amend or repeal State regulations to include in the rulemaking document a Smart Growth Impact statement that describes the impact of the proposed rules on the achievement of smart growth and implementation of the State Development and Redevelopment Plan (State Plan).

The proposed new rules and amendments do not impact the State's official land use and development policies in a way that would either encourage or discourage any development or redevelopment in this State contrary to the guiding principles of the State Plan. As a result, the Department does not expect this rulemaking to have an impact on the State's achievement of smart growth, or implementation of the State Plan.

Because the proposed new rules and amendments are intended to reduce the creating of ground-level ozone, primarily through the reduction in emissions of VOCs and NO_x, thereby helping to protect air quality, the proposed rules support the State Plan's goal of protecting the environment and preventing air pollution by implementing a strategy of reducing air pollution at the source.

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Housing Affordability Impact Analysis

Pursuant to N.J.S.A. 52:14B-4, as amended effective July 17, 2008, by P.L. 2008, c. 46, the Department has evaluated the proposed new rules and amendments determine their impact, if any, on the affordability of housing. The rules regulate gasoline-powered and diesel-powered motor vehicles. The Department has determined that the proposed new rules and amendments will impose an insignificant impact because there is an extreme unlikelihood that the rules will evoke a change in the average costs associated with housing.

Smart Growth Development Impact Analysis

Pursuant to N.J.S.A. 52:14B-4, as amended effective July 17, 2008, by P.L. 2008, c. 46, the Department has evaluated the proposed new rules and amendments to determine their impact, if any, on smart growth development. The rules regulate gasoline-powered and diesel-powered motor vehicles. The Department has determined that the new rules and amendments will impose an insignificant impact because there is an extreme unlikelihood that the rules will evoke a change in housing production in Planning Areas 1 or 2, or within designated centers, under the State Development and Redevelopment Plan. Therefore the new rules and amendments will not evoke a change in housing production in Planning areas 1 or 2, or within designated centers.

Full text of the proposal follows (additions indicated in boldface **thus**; deletions indicated in brackets [thus]):

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CHAPTER 27 AIR POLLUTION CONTROL

SUBCHAPTER 14 CONTROL AND PROHIBITION OF AIR POLLUTION FROM DIESEL-POWERED MOTOR VEHICLES

7:27-14.1 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context already indicates otherwise.

...

[“Black smoke” means smoke in the exhaust emissions of a diesel-powered motor vehicle which has a dark achromatic visual value and produces no predominant hue.

“Blue smoke” means smoke in the exhaust emissions of a diesel-powered motor vehicle which has a hue of the portion of the visible light spectrum which lies between green and violet.]

...

“Data link connector” or “DLC” means a standardized 16-pin diagnostic test receptacle used to connect an analyzer to a motor vehicle.

...

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“Diagnostic Trouble Code” or “DTC” means an alphanumeric code stored in the on board diagnostic system of a motor vehicle, which generally indicates the malfunction of a system or component. These codes are defined by SAE J2012 Diagnostic Trouble Code Definitions, (MAR92). Copies of SAE J2012 may be obtained from the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001.

...

“Diesel emissions testing equipment” means equipment used to conduct a test of a diesel-powered motor vehicle in accordance with N.J.A.C. 7:27B-4, and which satisfies all applicable specifications set forth at N.J.A.C. 7:27B-4.2(d) and 4.6. For motor vehicle inspections conducted pursuant to N.J.A.C. 7:27B-4 and this subchapter, this term shall include all devices used for performing a motor vehicle inspection including, but not limited to, smoke opacity meters, exhaust gas analyzers, on board diagnostic scanners and analyzers, and computers and related software.

...

“Emission control apparatus” means any device utilized by the vehicle manufacturer and/or the engine manufacturer to control the release of any regulated emission, including any associated component which monitors the function and maintenance of such a device, **regardless of the location of the device on the vehicle. This term shall also include any retrofit device added**

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to the vehicle or engine as part of a mandatory or voluntary retrofit program for emission control.

...

“EPA Memorandum 1A” means the memorandum dated June 25, 1974, and issued by the EPA's Office of Enforcement and General Counsel, which sets forth the EPA's interim tampering enforcement policy. This term also includes any revisions to the policy set forth in the June 25, 1974 memorandum that are subsequently issued by the EPA. A copy of this EPA memorandum has been filed with the Office of Administrative Law and may be obtained from the Bureau of Motor Vehicle Inspection and Maintenance in the Department of Environmental Protection.

...

“Malfunction indicator light” or “MIL” means the light located on the dashboard instrument panel of an OBD-equipped motor vehicle that indicates a malfunction detected by the OBD system by illuminating the words “check engine,” “service engine,” or an engine pictograph with the word “check” or “service.”

...

“OBD-eligible” means capable of receiving an OBD inspection as determined by the Department in accordance with N.J.A.C. 7:27-14.5(g).

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“On board diagnostics” or “OBD” means an automotive diagnostic system complying with California OBD regulations at Title 13 California Code section 1968.1 or EPA OBD regulations at 40 CFR Part 86.

...

“Retrofit device” means [a best available retrofit technology for installation on an on-road diesel vehicle or on a piece of off-road diesel equipment.] **any emissions control apparatus, including exhaust aftertreatment device, that has been installed on the vehicle or engine after the original manufacturing date of the complete vehicle.**

...

7:27-14.2 Applicability

(a)-(b) (No change.)

[(c) N.J.A.C. 7:27-14.5 and 14.6 do not apply to light-duty diesel vehicles.]

7:27-14.3 General prohibitions

(a)-(d) (No change.)

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(e) [No] **Except as set forth in (e)1 below, no** person shall cause, suffer, allow or permit any emission control apparatus or element of design installed on any diesel-powered motor vehicle or diesel engine to be disconnected, detached, deactivated, or in any other way rendered inoperable or less effective, in respect to limiting or controlling emissions than it was designed to be by the original equipment or vehicle manufacturer, except for the purposes of diagnostics, maintenance, repair or replacement and only for the duration of such operations.

1. Any modification to an emission control apparatus or element of design shall be performed in accordance with EPA Memorandum 1A. A device that modifies an emission control apparatus or element of design may be installed only if it is exempt from prohibition by CARB executive order. Information on devices or modifications approved by CARB executive order may be obtained from the California Air Resources Board, 1001 "T" Street, PO Box 2815, Sacramento, CA 95812 or at www.arb.ca.gov.

(f) (No change.)

7:27-14.4 General public highway standards

(a) No person shall cause, suffer, allow or permit the operation of any diesel-powered motor vehicle upon the public roads, streets or highways of the State or upon any public property or upon any quasi-public roadway in the State, if the vehicle:

1. - 3. (No change.)

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4. Has an emission control apparatus or an element of design installed on the vehicle or diesel engine **or exhaust system** which has been disconnected, detached, deactivated, or in any other way rendered inoperable or less effective than designed by the original equipment or vehicle or engine manufacturer; or

5. (No change.)

7:27-14.5 Test requirements

(a) A person testing a **heavy-duty** diesel[-powered motor] vehicle as part of the roadside enforcement program established pursuant to N.J.S.A. 39:8-64 and 13:20-46 shall **use diesel emissions testing equipment and shall** use one or more of the following tests, as designated by the Chief Administrator of the MVC in consultation with the Department and the New Jersey Department of Transportation, and with the approval of the Attorney General:

1. (No change.)

2. The rolling acceleration smoke opacity test, as described at N.J.A.C. 7:27B-4.3(a); **or**

3. The power brake smoke opacity test, for a vehicle with [a medium or high speed diesel engine and] an automatic transmission, only, as described at 7:27B-4.3(c); or

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4. The visible black smoke screening test, as described at 7:27B-4.3(d)].

(b) A person testing a heavy-duty diesel vehicle as part of the periodic inspection program established pursuant to N.J.S.A. 39:8-64 and 13:20-26.17; **a diesel bus as part of the periodic inspection program pursuant to N.J.A.C. 13:20-30, or N.J.S.A. 48:4-1 et seq. and N.J.A.C. 16:53; or a diesel-powered motor vehicle as part of the self-inspection programs pursuant to N.J.A.C. 13:20-26 or 16:53-3.27, shall use diesel emissions testing equipment, and** shall use one of the following tests:

1. (No change.)

2. The rolling acceleration smoke opacity test, as described at 7:27B-4.3(b); **or**

3. The power brake smoke opacity test, for a vehicle with [a medium or high speed diesel engine and] an automatic transmission, only, as described at 7:27B-4.3(c)[; **or**].

[4. (Reserved)

(c) A person testing a diesel bus as part of the periodic inspection program pursuant to 13:20-30, or N.J.S.A. 48:4-1 et seq. and 16:53, shall use one of the following tests:

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1. The snap acceleration smoke opacity test, for a vehicle with a low speed engine, only, as described at 7:27B-4.3(a); or

2. The power brake smoke opacity test, for a vehicle with an automatic transmission, only, as described at 7:27B-4.3(c).

(d) A person testing a diesel-powered motor vehicle as part of the self-inspection programs pursuant to 13:20-26 or at 16:53-3.27 shall use one of the following tests:

1. The snap acceleration smoke opacity test, for a vehicle with a low speed engine, only, as described at 7:27B-4.3(a);

2. The rolling acceleration smoke opacity test, as described at 7:27B-4.3(b); or

3. The power brake smoke opacity test, for a vehicle with an automatic transmission, only, as described at 7:27B-4.3(c).]

(c) A person testing a light-duty diesel vehicle subject to inspection in accordance with N.J.S.A. 39:8-1 shall use the following:

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1. A visible smoke test conducted in accordance with N.J.A.C. 7:27B-4.7; and

2. For light-duty diesel vehicles of model year 1997 or later, an OBD inspection utilizing diesel emissions testing equipment and conducted in accordance with N.J.A.C. 7:27B-4.8.

Recodify (e) through (g) as **(d) through (f)** (No change in text.)

(g) A motor vehicle that is not equipped with an OBD system is not OBD-eligible. A motor vehicle that is equipped with an OBD system is OBD-eligible, unless it meets one of the following criteria:

1. The motor vehicle has a DLC that is in a location not readily accessible during an typical inspection procedure, provided that the DLC is in its original configuration as supplied by the motor vehicle manufacturer and has not been obstructed, damaged, removed or modified;

2. The motor vehicle OBD system, as designed by the motor vehicle manufacturer, has difficulty setting or maintaining an adequate number of readiness monitors;

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3. The motor vehicle OBD system, as designed by the motor vehicle manufacturer, employs a communications protocol that is currently incompatible with approved diesel emissions testing equipment; or

4. The motor vehicle is otherwise identified by the EPA or the Department as not technologically or functionally capable of OBD inspection.

(h) The Department shall maintain a list of makes and model years of motor vehicles that it has determined to not be OBD-eligible, based on the criteria set forth at (g) above. A copy of this list will be available from the Department by contacting the Bureau of Motor Vehicle Inspection and Maintenance at (609) 530-4035 and can also be viewed and downloaded from the Department's website at www.state.nj.us/dep/aqm.

7:27-14.6 Inspection standards

(a) No **heavy-duty** diesel[-powered motor] vehicle **or diesel bus** shall be deemed to have passed an inspection unless it meets:

1. – 2. (No change.)

(b) (No change.)

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(c) A diesel bus, tested using the snap acceleration smoke opacity test, **the rolling acceleration smoke opacity test** or the power brake smoke opacity test, set forth at 7:27B-4, shall not emit smoke in the exhaust emissions which exceeds the following opacity standards:

1.-3. (No change.)

(d) A retrofitted EPA urban diesel bus, tested using the snap acceleration smoke opacity test, **the rolling acceleration smoke opacity test**, or the power brake smoke opacity test, set forth at 7:27B-4, shall not emit smoke in the exhaust emissions which exceeds a peak smoke opacity standard of 30 percent.

(e)-(g) (No change.)

(h) A light-duty diesel vehicle shall not emit visible smoke of any color in the exhaust emissions or in the crankcase emissions for a period in excess of three consecutive seconds when measured using the test procedure established at N.J.A.C. 7:27B-4.7.

(i) If, pursuant to the provisions of N.J.A.C. 7:27-14.5(c)2, a light-duty diesel vehicle is subject to an OBD inspection conducted in accordance with the inspection test procedure at N.J.A.C. 7:27B-4.8, it shall be considered to have passed said inspection unless:

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1. The DLC cannot be found or is damaged/obstructed in such a way as to not allow a connection between the analyzer and the motor vehicle;

2. Communication cannot be established between the analyzer and the vehicle's OBD system;

3. The MIL is not illuminating when commanded to light;

4. The number of systems that have non-continuous readiness monitors that are not ready for inspections equals or exceeds the following criteria: three "not ready" codes for motor vehicles model year 1997 through 2000 and two "not ready" codes for motor vehicles model year 2001 and newer;

5. Any continuous readiness monitor is not supported or not ready;

6. The MIL is illuminated while the vehicle's engine is running; or

7. DTCs have been detected by the OBD system to cause the MIL to be commanded on.

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Appendix

The following table highlights the provisions of N.J.A.C. 7:27-14.5 to show generally the emissions tests to be administered to each category of vehicle inspected or reinspected:

<u>Test/model year</u>	<u>1996 and older</u>	<u>1997 and newer</u>
<u>smoke opacity</u>	<u>GVWR > 8500</u>	<u>GVWR > 8500</u>
<u>visible smoke</u>	<u>GVWR < 8501</u>	<u>GVWR < 8501</u>
<u>(periodic inspection)</u>		
<u>visible smoke</u>	<u>all</u>	<u>all</u>
<u>(roadside inspection)</u>		
<u>OBD</u>	<u>=</u>	<u>GVWR < 8501</u>

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SUBCHAPTER 15 CONTROL AND PROHIBITION OF AIR POLLUTION FROM
GASOLINE-FUELED MOTOR VEHICLES

7:27-15.1 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings unless the context clearly indicates otherwise.

“Autobus” means any bus of any size or configuration, whether registered in this State or elsewhere, that is designed or used for intrastate or interstate transportation of passengers for hire or otherwise on a public road, street or highway or any public or quasi-public property in this State, including, but not limited to, autobuses under the jurisdiction of the New Jersey Department of Transportation pursuant to Titles 27 or 48 of the Revised Statutes; autobuses of the New Jersey Transit Corporation and its contract carriers that are under the inspection jurisdiction of the New Jersey Department of Transportation; autobuses that are subject to Federal motor carrier safety regulations; autobuses under the authority of the Interstate Commerce Commission or its successor agency; school buses, as defined pursuant to N.J.S.A. 39:1-1; and hotel, casino, charter, and special buses.

...

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“Diagnostic Trouble Code” or “DTC” means an alphanumeric code stored in the on board diagnostic system of a motor vehicle, which generally indicates the malfunction of a system or component. These codes are defined by SAE J2012 Diagnostic Trouble Code Definitions, (MAR92). Copies of SAE J2012 may be obtained from the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001.

...

[“Division of Motor Vehicles” or “DMV” means the Division of Motor Vehicles within the New Jersey Department of Transportation.]

...

“EPA Memorandum 1A” means the memorandum dated June 25, 1974, and issued by the EPA’s Office of Enforcement and General Counsel, which sets forth the EPA’s interim tampering enforcement policy. This term also includes any revisions to the policy set forth in the June 25, 1974 memorandum that are subsequently issued by the EPA. A copy of this EPA memorandum has been filed with the Office of Administrative Law and may be obtained from the Bureau of [Transportation Control] **Motor Vehicle Inspection and Maintenance** in the Department of Environmental Protection.

...

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“Gasoline-fueled” means powered **in whole or in part** by a hydrocarbon fuel other than diesel fuel, including, but not limited to, gasoline, natural gas, liquified petroleum gas, or propane, or powered by alcohol fuels, hydrocarbon-alcohol fuel blends or hydrogen.

...

[“Loaded vehicle weight” or “LVW” means the vehicle curb weight plus 300 pounds.]

[“Low mileage vehicle” means a motor vehicle that is driven less than 10,000 miles during a biennial inspection period.]

“Malfunction indicator light” or “MIL” means the light located on the dashboard instrument panel of an OBD-equipped motor vehicle that indicates a malfunction detected by the OBD system by illuminating the words “check engine,” “service engine,” or an engine pictograph with the word “check” or “service.”

...

“Motor Vehicle Commission” or “MVC” means the New Jersey Motor Vehicle Commission established by the Motor Vehicle Security and Customer Service Act (N.J.S.A. 39:2A-1 et seq.).

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“Motor vehicle testing equipment” means equipment used to conduct a test of a gasoline-fueled motor vehicle set forth at N.J.A.C. 7:27B-5, and which satisfies all applicable specifications set forth at N.J.A.C. [7:27B-5.9] **7:27B-5.8**, Specifications for motor vehicle testing equipment for use in the New Jersey Enhanced Inspection and Maintenance Program. For motor vehicle inspections conducted pursuant to N.J.A.C. 7:27B-5 and this subchapter, this term shall include all devices used for performing a motor vehicle inspection, including, but not limited to, exhaust gas analyzers, dynamometers, on-board diagnostic scanners and analyzers, fuel cap leak testers, and computers and related software.

...

“Official inspection facility” means a test-only inspection facility operated by, licensed by, or under contract with the [DMV] **MVC** whose exclusive function is conducting emissions inspections.

“On board diagnostics” or “OBD” means an automotive diagnostic system complying with California OBD regulations **at Title 13 California Code section 1968.1** or EPA OBD [II] regulations **at 40 CFR Part 86** [effective for model year 1996 and newer motor vehicles].

...

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“Private inspection facility” or “PIF” means a facility licensed by the [DMV] MVC to perform emissions inspections that may also offer motor vehicle parts and repair services.

...

7:27-15.3 General public highway standards

- (a) (No change.)
- (b) No owner or operator of a gasoline-fueled motor vehicle shall cause, suffer, allow or permit the operation of the motor vehicle upon the public roads, streets, or highways of the State, or any public or quasi-public property in the State, if the vehicle emits hydrocarbons (HC)[,] or carbon monoxide (CO)[, or oxides of nitrogen (NO_x)] in the exhaust emissions in excess of any applicable standards set forth at N.J.A.C. 7:27-15.6(b).
- (c) No owner or operator of a gasoline-fueled motor vehicle shall cause, suffer, allow or permit the operation of the motor vehicle upon the public roads, streets or highways of the State or any public or quasi-public property in the State if the motor vehicle does not satisfy and pass all applicable motor vehicle inspection testing requirements at N.J.A.C.

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7:27-15.5 [unless the motor vehicle has been issued a waiver in accordance with N.J.A.C. 13:20-43.13].

(d) (No change.)

7:27-15.5 Motor vehicle inspections{tc \l1 "7:27-15.5 Motor vehicle inspections}

(a) (No change.)

(b) The motor vehicle shall be inspected at least once every two years. This biennial inspection shall be deemed an “on-cycle” inspection and shall include an initial inspection, together with any reinspections required pursuant to (h) below. In addition, in accordance with its procedures, the [DMV] MVC may require the owner of a motor vehicle to have it inspected more frequently than every two years. Such more frequent inspections shall be deemed to be “off-cycle” inspections and shall also include an initial inspection together with any reinspections required pursuant to (h) below. In the case of a motor vehicle subject to the school bus inspection program as generally set forth at N.J.A.C. 13:20-30, an initial inspection shall be required [semi-]annually as provided at N.J.A.C. 13:20-30.13.

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(c) Initial inspections and reinspections for an on-cycle or an off-cycle inspection shall be performed at either an official inspection facility or at a PIF, or, in the case of a motor vehicle subject to the [DMV's] **MVC's** school bus inspection program as generally set forth at N.J.A.C. 13:20-30.1, at the premises or place of business of the operator of such vehicle, as provided at N.J.A.C. 13:20-30.13.

(d) A motor vehicle inspection is not complete until[:

1. The] **the** motor vehicle passes all of the tests and satisfies all of the requirements, as specified in (f) below, that constitute the inspection or reinspection at an appropriate inspection facility, as specified in (c) above[; or
2. The motor vehicle has been issued a waiver in accordance with N.J.A.C. 13:20-43.13].

(e) (No change.)

(f) A motor vehicle inspection shall include the following:

1.-2. (No change.)

3. For an LDGV, LDGT or HDGV of model year 1975 or later, an emission control apparatus compliance examination conducted in accordance with N.J.A.C.[7:27B-5.6] **7:27B-5.5**;

4. For an LDGV, LDGT or HDGV **of model year 2000 or earlier** originally equipped with a sealed fuel filler cap (that is, not a directly vented fuel filler cap), a fuel cap leak test utilizing motor vehicle testing equipment approved by the Department and conducted in accordance with N.J.A.C. [7:27B- 5.8] **7:27B-5.7**;
and

5. (No change.)

(g) [On and after June 1, 2003, an] **An** OBD-eligible motor vehicle will receive an OBD inspection. For a motor vehicle that is not OBD-eligible [and for all motor vehicles inspected prior to June 1, 2003,] the exhaust emission test to be used pursuant to (f)2 above shall be as follows:

1. The idle test set forth at N.J.A.C. 7:27B-5.3(b), if the motor vehicle is either of the following types:

- i. (No change.)
 - ii. A motor vehicle that has a GVWR in excess of 8,500 pounds; **or**
2. [The 2,500 RPM test set forth at N.J.A.C. 7:27B-5.4, if the motor vehicle is any of the following types and is not otherwise designated for testing with the idle test, as determined at (g)1 above:
- i. A motor vehicle of model year 1981 or later that employs either full-time four-wheel drive or non-disengageable traction control;
 - ii. A low mileage vehicle of model year 1981 or later; or
 - iii. A gasoline-fueled motor vehicle subject to inspection as part of the school bus inspection program, as generally set forth at N.J.A.C. 13:20-30.13; or
3. The ASM5015 test set forth at N.J.A.C. 7:27B-5.5, if the motor vehicle is either of the following types and is not otherwise designated for testing with either the idle test, as determined at (g)1 above, or the 2,500 RPM test, as determined at (g)2 above:]

The two speed idle test at N.J.A.C 7:27B-5.4, if the motor vehicle is either of the following types and is not otherwise designated for testing with the idle test, as determined at (g)1 above:

i.-ii. (No change.)

(h) The owner of a motor vehicle that fails to pass all of the tests that constitute a motor vehicle inspection pursuant to (f) above shall have it reinspected in accordance with every applicable element of (f) above by the deadline specified by the [DMV] MVC at N.J.A.C. 13:20-7.5, 7.6(a) or 43.14(g), as applicable. Operation of the motor vehicle upon the public roads, streets or highways of the State or any public or quasi-public property in the State shall be prohibited pursuant to N.J.A.C. 7:27-15.3(c) unless, by the deadline established by the [DMV] MVC at N.J.A.C. 13:20-7.5, 7.6(a) or 43.14(g), as applicable[:

1. The] , the motor vehicle passes all of the tests and meets all the requirements that constitute the inspection or reinspection[; or

2. A waiver is issued pursuant to N.J.A.C. 13:20-43.13].

(i) An on-road inspection conducted pursuant to N.J.A.C. 13:20-43.14 may include the following:

1.-2. (No change.)

3. [A 2,500 RPM test utilizing motor vehicle testing equipment approved by the Department and conducted in accordance with N.J.A.C. 7:27B-5.4] **A two speed idle test utilizing motor vehicle testing equipment and conducted in accordance with N.J.A.C. 7:27B-5.4;**

- [4. An ASM5015 test utilizing motor vehicle testing equipment approved by the Department and conducted in accordance with N.J.A.C. 7:27B-5.5;]

- [5.]**4.** For an LDGV, LDGT or HDGV of model year 1975 or later, an emission control apparatus compliance examination conducted in accordance with N.J.A.C. [7:27B- 5.6] **7:27B-5.5;**

- [6.]**5.** For an LDGV, LDGT or HDGV **of model year 2000 or earlier** originally equipped with a sealed fuel filler cap (that is, not a directly vented fuel filler cap), a fuel cap leak test utilizing motor vehicle testing equipment approved by the Department and conducted in accordance with N.J.A.C. [7:27B-5.8] **7:27B-5.7;**

- [7.]**6.** For an LDGV or LDGT of model year 1996 or later, an OBD inspection utilizing motor vehicle testing equipment approved by the Department and conducted in accordance with N.J.A.C. [7:27B-5.7] **7:27B-5.6;** and

- [8.]**7.** Any other tests deemed appropriate by the [Director] **Chief Administrator** of the [DMV] **MVC** that are directed toward detecting acts of tampering with emission

control apparatus specifically prohibited at N.J.A.C. 7:27-15.7(a)1 or toward identifying vehicles operated in violation of N.J.A.C. 7:27-15.3(d). Such tests may include visual or functional checks of emission control apparatus and elements of design.

(j)-(k) (No change.)

(l) Each year [DMV] **MVC** shall conduct a program evaluation test which shall entail additional testing for at least 0.1 percent of those motor vehicles subject to inspection during that year. The motor vehicles subject to the program evaluation testing shall be selected by the [DMV] **MVC** in accordance with its procedures. [The program evaluation test shall consist of one or more IM240 tests performed in accordance with N.J.A.C. 7:27B-5.6. The program evaluation test shall be performed after, and in addition to, any other inspection procedures required pursuant to this section.] The results of the program evaluation test shall not be used in determining whether a motor vehicle has passed or failed its motor vehicle inspection with regard to exhaust emissions.

(m) (No change.)

(n) The Department shall maintain a list of makes and model years of motor vehicles that it has determined to not be OBD-eligible, based on the criteria set forth at (m) above. A copy of this list will be available from the Department by contacting the Bureau of [Transportation Control] **Motor Vehicle Inspection and Maintenance** at (609) 530-

4035 and can also be viewed and downloaded from the Department's website at www.state.nj.us/dep/aqm.

7:27-15.6 Motor vehicle inspection standards

- (a) (No change.)
- (b) A light-duty gasoline-fueled vehicle, light-duty gasoline-fueled truck or heavy-duty gasoline-fueled vehicle shall not emit carbon monoxide (CO)[,] or hydrocarbons (HC)[, or oxides of nitrogen (NO_x)] in the exhaust emissions in excess of the following standards:
 - 1. (No change.)

TABLE 1

EXHAUST EMISSION STANDARDS
FOR THE IDLE TEST

LDGVs and LDGTs Powered by Gasoline

Model Year	CO (% by volume)	HC (ppm as hexane)
------------	---------------------	-----------------------

Pre-1968	8.5	1400
1968-1970	7.0	700
1971-1974	5.0	500
1975-1980	3.0	300
1981 & Later	1.2	220

[LDGVs and LDGTs Powered by a Fuel Other Than Gasoline
(Reserved)]

HDGVs Powered by Gasoline

Model Year	CO (% by volume)	HC (ppm as hexane)
Pre-1968	8.5	1400

1968-1970	8.5	1200
1971-1974	6.0	700
1975-1978	4.0	500
1979 & Later	3.0	300

[HDGVs Powered by a Fuel Other Than Gasoline

(Reserved)]

2. If, pursuant to the provisions of N.J.A.C. 7:27-15.5(g), a motor vehicle is tested using the [2500 RPM] **two speed idle** test, the motor vehicle shall be subject to the applicable exhaust emission standards set forth in Table 2 below.
Compliance with these standards shall be determined in accordance with the inspection test procedure at N.J.A.C. 7:27B-5.4;

TABLE 2

EXHAUST EMISSION STANDARDS

FOR THE [2,500 RPM] **TWO SPEED IDLE** TEST

LDGVs and LDGTs Powered by Gasoline

Model Year	CO (percent by volume)	HC (ppm as hexane)
1981 & Later	[0.5] <u>1.2</u>	[100] <u>220</u>

[LDGVs and LDGTs Powered by a Fuel Other Than Gasoline

(Reserved)]

- [3. If, pursuant to the provisions of N.J.A.C. 7:27-15.5(g), a motor vehicle is tested using the ASM5015 test, the motor vehicle shall be subject to the applicable exhaust emission standards set forth in Table 3 below. Compliance with these standards shall be determined in accordance with the inspection test procedure at N.J.A.C. 7:27B-5.5.

TABLE 3
EXHAUST EMISSION STANDARDS
FOR THE ASM5015 TEST

LDGVs Powered by Gasoline

<u>Model Years</u>	<u>HC</u> *	<u>CO</u> *	<u>NO_x</u> *
1981-1982	4	13	19
1983-1990	4	11	19
1991-1995	2	10	18
1994+ Tier 1	1	9	17

*The numbers given in this column refer to the appropriate column number in Table 4 below, which contains the actual exhaust emission standards.

LDGVs Powered by a Fuel Other Than Gasoline

(Reserved)

LDGT1s Powered by Gasoline

<u>Model Years</u>	<u>HC</u> *	<u>CO</u> *	<u>NO_x</u> *
1981-1983	8	16	24

1984-1987	6	15	24
1988-1990	6	15	20
1991-1995	5	13	19
1994+ Tier 1			
(≤3750 LVW)	1	9	17
(>3750 LVW)	2	10	18

*The numbers given in this column refer to the appropriate column number in Table 4 below, which contains the actual exhaust emission standards.

LDGT1s Powered by a Fuel Other Than Gasoline

(Reserved)

LDGT2s Powered by Gasoline

<u>Model Years</u>	<u>HC</u> *	<u>CO</u> *	<u>NO_x</u> *
1981-1983	8	16	24
1984-1987	6	15	24
1988-1990	6	15	23
1991-1995	5	13	22
1994+ Tier 1			
(≤5750 LVW)	2	10	18
(>5750 LVW)	5	13	21

*The numbers given in this column refer to the appropriate column number in Table 4 below, which contains the actual exhaust emission standards.

LDGT2s Powered by a Fuel Other Than Gasoline

(Reserved)

TABLE 4

	Hydrocarbons (ppm)								Carbon Monoxide (percent)								Oxides of Nitrogen (ppm)							
Column Numbers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
LVW(*)																								
1750	142	224	257	291	324	390	407	774	0.80	1.26	1.64	2.02	2.78	3.16	3.54	4.31	1212	1819	2272	2725	3178	3631	4084	4990
1875	134	212	243	275	306	368	384	729	0.75	1.19	1.55	1.91	2.63	2.98	3.34	4.06	1142	1713	2181	2649	3117	3586	4054	4990
2000	127	201	230	260	289	348	363	688	0.71	1.13	1.47	1.81	2.48	2.82	3.16	3.83	1077	1616	2058	2499	2941	3383	3824	4778
2125	121	191	219	246	274	329	343	650	0.68	1.07	1.39	1.71	2.35	2.67	2.99	3.63	1018	1527	1944	2360	2776	3192	3609	4578
2250	115	182	208	234	260	312	325	615	0.64	1.02	1.32	1.62	2.23	2.53	2.83	3.44	964	1446	1839	2232	2625	3018	3411	4395
2375	109	173	198	223	247	297	309	583	0.61	0.97	1.26	1.54	2.12	2.40	2.69	3.26	915	1372	1744	2115	2487	2859	3231	4228
2500	105	166	189	212	236	283	294	554	0.59	0.93	1.20	1.47	2.02	2.29	2.56	3.10	869	1304	1657	2009	2361	2714	3066	4076
2625	100	159	181	203	225	270	281	528	0.56	0.89	1.15	1.41	1.92	2.18	2.44	2.96	828	1242	1577	1912	2246	2581	2916	3936
2750	96	152	173	194	216	258	269	503	0.54	0.85	1.10	1.34	1.84	2.09	2.33	2.83	791	1186	1504	1823	2142	2460	2779	3809
2875	92	146	167	187	207	247	257	481	0.52	0.82	1.05	1.29	1.76	2.00	2.23	2.71	756	1134	1438	1742	2046	2350	2654	3669
3000	89	141	160	180	199	237	247	461	0.50	0.79	1.01	1.24	1.69	1.92	2.14	2.60	725	1088	1378	1668	1959	2249	2539	3510
3125	86	136	155	173	191	228	238	443	0.48	0.76	0.98	1.19	1.63	1.84	2.06	2.50	696	1045	1323	1601	1879	2157	2435	3366
3250	83	132	149	167	185	220	229	426	0.46	0.73	0.94	1.15	1.57	1.78	1.99	2.40	670	1006	1273	1539	1806	2073	2340	3234

	Hydrocarbons (ppm)								Carbon Monoxide (percent)								Oxides of Nitrogen (ppm)							
Column Numbers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
LVW(*)																								
3375	81	128	145	162	179	213	221	411	0.45	0.71	0.91	1.11	1.52	1.72	1.92	2.32	647	970	1227	1483	1740	1997	2253	3113
3500	78	124	140	157	173	206	214	397	0.44	0.69	0.88	1.08	1.47	1.66	1.86	2.24	625	937	1184	1432	1679	1926	2174	3002
3625	76	120	136	152	168	200	207	384	0.42	0.67	0.86	1.05	1.42	1.61	1.80	2.17	605	907	1146	1384	1623	1862	2100	2900
3750	74	117	133	148	163	194	201	372	0.41	0.65	0.83	1.02	1.38	1.56	1.74	2.11	586	879	1110	1340	1571	1802	2033	2806
3875	72	114	129	144	159	188	196	361	0.40	0.63	0.81	0.99	1.34	1.52	1.69	2.05	569	853	1077	1300	1523	1747	1970	2719
4000	71	112	126	140	155	183	191	351	0.39	0.62	0.79	0.96	1.31	1.48	1.65	1.99	553	829	1046	1262	1479	1695	1912	2638
4125	69	109	123	137	151	179	186	341	0.38	0.60	0.77	0.94	1.27	1.44	1.61	1.94	538	807	1017	1227	1437	1647	1857	2562
4250	67	107	120	134	147	174	181	332	0.37	0.59	0.75	0.92	1.24	1.40	1.56	1.89	524	786	990	1194	1398	1602	1806	2490
4375	66	104	118	131	144	170	177	323	0.36	0.58	0.74	0.89	1.21	1.37	1.53	1.84	510	766	964	1162	1360	1559	1757	2423
4500	65	102	115	128	141	166	172	315	0.36	0.57	0.72	0.87	1.18	1.34	1.49	1.80	498	747	939	1132	1325	1518	1711	2359
4625	63	100	113	125	137	162	169	308	0.35	0.55	0.70	0.85	1.15	1.30	1.46	1.76	486	728	916	1104	1291	1479	1666	2297
4750	62	98	110	122	134	159	165	300	0.34	0.54	0.69	0.84	1.13	1.28	1.42	1.72	474	711	893	1076	1259	1441	1624	2238
4875	61	96	108	120	132	155	161	293	0.34	0.53	0.67	0.82	1.10	1.25	1.39	1.68	463	694	872	1049	1227	1405	1583	2180
5000	60	94	106	117	129	152	157	286	0.33	0.52	0.66	0.80	1.08	1.22	1.36	1.64	452	677	850	1023	1196	1369	1542	2125

	Hydrocarbons (ppm)								Carbon Monoxide (percent)								Oxides of Nitrogen (ppm)							
Column Numbers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
LVW(*)																								
5125	58	93	104	115	126	148	154	279	0.32	0.51	0.65	0.78	1.05	1.19	1.33	1.60	441	661	830	998	1167	1335	1503	2070
5250	57	91	102	112	123	145	150	272	0.32	0.50	0.63	0.77	1.03	1.16	1.30	1.56	431	646	810	974	1138	1301	1465	2017
5375	56	89	100	110	121	142	147	266	0.31	0.49	0.62	0.75	1.01	1.14	1.27	1.53	420	631	790	950	1109	1269	1428	1966
5500	55	87	98	108	118	139	144	259	0.30	0.48	0.61	0.73	0.99	1.11	1.24	1.49	410	616	771	926	1082	1237	1392	1916
5625	54	86	96	106	116	136	141	253	0.30	0.47	0.59	0.72	0.97	1.09	1.21	1.46	401	601	752	904	1055	1206	1357	1867
5750	53	84	94	104	113	133	138	247	0.29	0.46	0.58	0.70	0.94	1.07	1.19	1.43	391	587	734	882	1029	1176	1323	1820
5875	52	83	92	102	111	130	135	241	0.29	0.45	0.57	0.69	0.92	1.04	1.16	1.40	383	574	717	860	1004	1147	1290	1774
6000	51	81	90	100	109	127	132	236	0.28	0.44	0.56	0.67	0.91	1.02	1.14	1.37	374	561	701	840	980	1120	1259	1731
6125	50	80	89	98	107	125	129	231	0.28	0.44	0.55	0.66	0.89	1.00	1.11	1.34	366	549	685	822	958	1094	1230	1690
6250	50	79	87	96	105	123	127	226	0.27	0.43	0.54	0.65	0.87	0.98	1.09	1.31	359	538	671	804	937	1070	1203	1653
6375	49	77	86	95	103	120	125	222	0.27	0.42	0.53	0.64	0.86	0.96	1.07	1.29	352	528	658	788	919	1049	1179	1619
6500	48	76	85	93	102	119	123	218	0.26	0.42	0.52	0.63	0.84	0.95	1.06	1.27	346	519	647	775	902	1030	1158	1590
6625	48	76	84	92	101	117	121	215	0.26	0.41	0.52	0.62	0.83	0.94	1.04	1.25	341	512	638	763	889	1014	1140	1565

Column Numbers	Hydrocarbons (ppm)								Carbon Monoxide (percent)								Oxides of Nitrogen (ppm)							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
6750	47	75	83	91	100	116	120	213	0.26	0.41	0.51	0.61	0.82	0.93	1.03	1.24	338	507	631	755	879	1003	1127	1546
6875	47	75	83	91	99	115	119	211	0.26	0.40	0.51	0.61	0.82	0.92	1.02	1.23	335	503	626	749	872	995	1118	1534
7000	47	74	83	91	99	115	119	211	0.25	0.40	0.51	0.61	0.82	0.92	1.02	1.23	335	502	625	747	870	992	1115	1531
7125	47	74	82	90	98	115	119	211	0.25	0.40	0.51	0.61	0.81	0.92	1.02	1.22	335	502	624	747	870	992	1115	1530
7250	47	74	82	90	98	115	119	211	0.25	0.40	0.50	0.61	0.81	0.92	1.02	1.22	335	502	624	747	870	992	1115	1530
7375	47	74	82	90	98	115	119	211	0.25	0.40	0.50	0.61	0.81	0.92	1.02	1.22	335	502	624	747	870	992	1115	1530
7500	47	74	82	90	98	115	119	211	0.25	0.40	0.50	0.61	0.81	0.92	1.02	1.22	335	502	624	747	870	992	1115	1530

* For the purpose of applying these standards, the vehicle's LVW shall be rounded to the nearest 125 pound increment listed in this table.

Note: The emission standards decrease with increasing vehicle weight in order to maintain a constant concentration-based standard for all vehicle weights. This effect is a result of conversion of the standards from a mass measurement to a concentration measurement and accounts for increased displacement from larger engines or a higher RPM from the increased load on smaller engines in heavier vehicles.

]

[4.]**3.** If, pursuant to the provisions of N.J.A.C. 7:27-15.5(g), a motor vehicle is tested using an OBD inspection conducted in accordance with the inspection test procedure at N.J.A.C. [7:27B-5.7] **7:27B-5.6**, it shall be considered to have passed said inspection unless:

i.-iii. (No change.)

iv. The number of systems which have **non-continuous** readiness monitors which are not ready for inspections **equals or** exceeds the following criteria: three “not ready” codes for motor vehicles model year 1996 through 2000 and two “not ready” codes for motor vehicles model year 2001 and newer, as established at 40 C.F.R. §51.357, incorporated herein by reference;

v. Any continuous readiness monitor is not supported or not ready;

vi. The MIL is illuminated while the vehicle’s engine is running;

[v.]**vii.** DTCs have been detected by the OBD system to cause the MIL to be commanded on; or

[vi.]**viii.**A motor vehicle fails an initial OBD inspection as indicated by one or more catalyst DTCs, and [fails a tailpipe test conducted on reinspection to confirm catalyst repairs in the case where] the catalyst readiness monitor indicates the monitor is not ready during the OBD reinspection.

(c) A gasoline-fueled motor vehicle which is subject to inspection pursuant to N.J.A.C. 7:27-15.5(a) shall, as a condition of compliance with said inspection, have a properly

functioning and properly maintained emission control apparatus as determined according to the inspection test procedures established at N.J.A.C. [7:27B- 5.6] **7:27B-5.5**.

- (d) Except as provided in (e) and (f) below, the applicability of the standards set forth in this subchapter and of the test procedure set forth at N.J.A.C. 7:27B-5.3 through [5.8] **5.7**, inclusive, to a motor vehicle with an engine other than the engine originally installed by the manufacturer shall be based on the chassis type and model year of the motor vehicle, not on the engine model year.

- (e) A motor vehicle that is modified to operate solely on a fuel other than that for which the motor vehicle was originally equipped shall be subject to the test procedures and standards applicable to a motor vehicle of the current fuel type. If the motor vehicle's fuel type after modification is one to which this subchapter does not apply (for example, a gasoline engine replaced with a diesel engine), the motor vehicle shall be exempt from this subchapter. [If the motor vehicle's fuel type after modification is a fuel type to which this subchapter applies, but is other than gasoline (for example, a gasoline engine modified to operate solely on natural gas), the standards applicable to that motor vehicle shall be those prescribed in the Tables 1, 2 and 3 above for motor vehicles powered by a fuel other than gasoline. Until such time that applicable exhaust emission standards are promulgated for motor vehicles powered by fuels other than gasoline, such vehicles shall be exempt from exhaust emission testing when operating on a fuel other than gasoline.]

(f) A motor vehicle that is modified or manufactured to operate on more than one fuel type shall be subject to exhaust emission standards that apply to the motor vehicle for each fuel type for which the motor vehicle is equipped. Such motor vehicle shall be subject to an exhaust emission test for each fuel type on which it operates and shall comply with all applicable standards for each fuel type. Such motor vehicle shall also be subject to a fuel cap leak test when operating on gasoline. If the motor vehicle is capable of simultaneous operation on more than one fuel type (for example, flexible fuel, gasoline-methanol vehicle), the motor vehicle shall be subject to an exhaust emission test using the fuel mixture in the vehicle at the time of inspection and subject to the exhaust emission standards applicable to vehicles powered by gasoline. [When operating on a fuel other than gasoline, the exhaust emission standards applied to a motor vehicle shall be those prescribed in the Tables 1, 2 and 3 above for motor vehicles powered by a fuel other than gasoline. Until such time that applicable exhaust emission standards are promulgated for motor vehicles powered by fuels other than gasoline, such vehicles shall be exempt from exhaust emission testing when operating on a fuel other than gasoline.]

(g) (No change.)

7:27-15.7 Prohibition of tampering with emission control apparatus

{tc \l1 "7:27-15.7 Prohibition of tampering with emission control apparatus}(a) No

owner or operator of a gasoline-fueled motor vehicle shall cause, suffer, allow or permit any of the following, unless it is performed in accordance with EPA Memorandum 1A or it is exempt from prohibition by CARB executive order (information on devices or

modifications approved by CARB executive order may be obtained from **the California** Air Resources Board, [Haagen-Smit Laboratory, 9528 Telstar Avenue, El Monte, CA, 91731-2990] **1001 "P" Street, PO BOX 2815, Sacramento, CA 95812 or at** **www.arb.ca.gov**):

1. - 4. (No change.)

7:27-15.8 Idle standard{tc \l1 "7:27-15.8 Idle standard}

(a) (No change.)

(b) The provisions of (a) above shall not apply to:

1. Buses while **actively** discharging or picking up passengers **may idle for 15 consecutive minutes in a 60-minute period;**

2. [Motor vehicles stopped in a line of traffic] **Any motor vehicle idling in traffic, or a motor vehicle other than a school bus idling in a queue of motor vehicles, that are intermittently motionless and moving because the progress of the motor vehicles in the traffic or the queue has been stopped or slowed by the congestion of traffic on the roadway or by other conditions over which the driver of the idling motor vehicle has no control;**

3. Motor vehicles whose primary and/or secondary power source is utilized in whole or in part for necessary and definitively prescribed mechanical operation other than propulsion[, passenger compartment heating or air conditioning]. **This use includes, but is not limited to, operating lift gate pumps and controlling cargo temperature. This exemption does not apply to passenger compartment heating or passenger compartment air conditioning;**

4. (No change.)

5. [Emergency motor vehicles in an emergency situation] **Vehicles that are actively performing emergency services. Examples include fire vehicles, police vehicles, public utility vehicles, military tactical vehicles and snow removal vehicles, during the time that such vehicles are actively performing emergency services;**

6. Motor vehicles while being repaired **or serviced, provided that operation of the engine is essential to the proper repair or service;**

[7. Motor vehicles while engaged in the process of connection, detachment or exchange of trailers; or]

[8.]**7.** Motor vehicles manufactured with a sleeper berth while being used, in a non-residentially zoned area, by the vehicle's operator for sleeping or resting, **unless the vehicle is equipped with a functional auxiliary power system designed in whole or in**

part to maintain cabin or sleeper berth comfort or to mitigate cold weather start-up difficulties.

APPENDIX{tc \11 "APPENDIX}

The following table highlights the provisions of N.J.A.C. 7:27-15.5[(g)](f) to show generally the [exhaust] emissions tests [or OBD inspection] to be administered to each category of vehicle inspected or reinspected:

[Test/model year	1980 and older	1981 - 1995	1996 and newer*
idle	all	GVWR > 8500	GVWR > 8500
2,500 RPM	-	all-wheel drive, low mileage, etc. school bus	all-wheel drive, low mileage, etc. school bus
ASM5015	-	all others not covered above	all others not covered above
OBD (after 6/1/2003)	-	-	all OBD-equipped

and eligible

*Note: On and after June 1, 2003, an OBD-equipped and eligible motor vehicle will receive an OBD inspection.]

<u>Test/model year</u>	<u>1980 and older</u>	<u>1981 - 1995</u>	<u>1996 and newer</u>
<u>idle</u>	<u>all</u>	<u>GVWR > 8500</u>	<u>GVWR > 8500</u>
<u>two speed idle</u>	<u>:</u>	<u>GVWR < 8501</u>	<u>all OBD-equipped but not OBD-eligible with GVWR < 8501</u>
<u>OBD</u>	<u>:</u>	<u>:</u>	<u>all OBD-equipped and eligible with GVWR < 8501</u>
<u>Gas Cap</u>	<u>all equipped with sealed systems (1971 and newer)</u>	<u>all</u>	<u>all models through 2000</u>
<u>Visible smoke</u>	<u>all</u>	<u>all</u>	<u>all</u>
<u>Catalytic converter check</u>	<u>all originally equipped (1975 and newer)</u>	<u>all</u>	<u>all</u>

CHAPTER 27A AIR ADMINISTRATION PROCEDURES AND PENALTIES

SUBCHAPTER 3. CIVIL ADMINISTRATIVE PENALTIES AND REQUESTS FOR
ADJUDICATORY HEARINGS

7:27A-3.10 Civil administrative penalties for violation of rules adopted pursuant to the Act

(a)-(m) (No change.)

CIVIL ADMINISTRATIVE PENALTY SCHEDULE

1.-14. (No change.)

15. The violations of N.J.A.C. 7:27-15, Control and Prohibition of Air Pollution from Gasoline-fueled Motor Vehicles, and the civil administrative penalty amounts for each violation, per vehicle or, with respect to N.J.A.C. 7:27-15.7(a)4, per device/component, are as set forth in the following table:

Citation	Class	Type of Violation	First Offense	Second Offense	Third Offense	Fourth and Each Subsequent Offense
N.J.A.C. 7:27-15.3(d)	Passenger Vehicle Registration	M	\$500	\$1,000	\$2,500	\$7,500
	Commercial Vehicle Registration	M	\$1,000	\$2,000	\$5,000	\$15,000
N.J.A.C. 7:27-15.7(a)1	Owner of four or fewer vehicles	NM	\$400	\$800	\$2,000	\$6,000
	Owner of five or more vehicles	NM	\$1,000	\$2,000	\$5,000	\$15,000
N.J.A.C. 7:27-15.7(a)2	Passenger Vehicle Registration	NM	\$500	\$1,000	\$2,500	\$7,500
	Commercial Vehicle Registration	NM	\$1,000	\$2,000	\$5,000	\$15,000

Citation	Class	Type of Violation	First Offense	Second Offense	Third Offense	Fourth and Each Subsequent Offense
N.J.A.C. 7:27-15.7(a)3	Sale/Offer for Sale; Lease/Offer for Lease by owner of four or fewer vehicles	NM	\$1,000	\$2,000	\$5,000	\$15,000
	Sale/Offer for Sale; Lease/Offer for Lease by owner of five or more vehicles	NM	\$2,000	\$4,000	\$10,000	\$30,000
N.J.A.C. 7:27-15.7(a)4	Offer for Sale/Sale of Device/Component	NM	\$2,000	\$4,000	\$10,000	\$30,000
N.J.A.C. 7:27-15.8(a)	Passenger Vehicle Registration	NM	\$100	\$200	\$500	\$1,500

Citation	Class	Type of Violation	First Offense	Second Offense	Third Offense	Fourth and Each Subsequent Offense
	Commercial Vehicle	NM	[\$200]	[\$400]	\$1,000	[\$3,000]
	Registration		<u>\$250</u>	<u>\$500</u>		<u>\$1,000</u>
	<u>School Bus Owner</u>	<u>NM</u>	<u>\$250</u>	<u>\$500</u>	<u>\$1,000</u>	<u>\$1,000</u>
	<u>School District, if the School District does not own the bus¹</u>	<u>NM</u>	<u>\$0</u>	<u>\$500</u>	<u>\$1,000</u>	<u>\$1,000</u>
	<u>Property Owner</u>	<u>NM</u>	<u>\$250</u>	<u>\$500</u>	<u>\$1,000</u>	<u>\$1,000</u>

¹ The driver of a school bus is not subject to penalty under N.J.A.C. 7:27-15.8(a). The bus driver, school district, and the principal or administrator of the school serviced by the bus will be notified of violations. After the first violation, the school district, if it is not also the owner of the bus, will be subject to both notice and penalty.

16.-32. (No change.)

(n)-(t) (No change.)

CHAPTER 27B SAMPLING AND ANALYTICAL PROCEDURES

SUBCHAPTER 4 AIR TEST METHOD 4: TESTING PROCEDURES FOR DIESEL-
POWERED MOTOR VEHICLES

7:27B-4.1 Definitions

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise.

...

“Data link connector” or “DLC” means a standardized 16-pin diagnostic test receptacle used to connect an analyzer to a motor vehicle.

...

“Diesel emissions testing equipment” means equipment used to conduct a test of a diesel-powered motor vehicle in accordance with this subchapter, and which satisfies all applicable specifications set forth at N.J.A.C. 7:27B-4.2(d) and 4.6. For motor vehicle inspections conducted pursuant to N.J.A.C. 7:27-14 and this subchapter, this term shall include all devices used for performing a motor vehicle inspection including, but not limited to, smoke opacity meters, exhaust gas analyzers, on board diagnostic scanners and analyzers, and computers and related software.

...

“Emission control apparatus” means any device utilized by the vehicle manufacturer and/or the engine manufacturer to control the emission of any regulated emission, including any associated component which monitors the function and maintenance of such a device, regardless of the location of the location of the device on the vehicle. This term shall also include any retrofit device added to the vehicle or engine as part of a mandatory or voluntary retrofit program for emission control.

...

“Key on engine off” or “KOEO” means the motor vehicle ignition position of key-on, engine-off. This may be denoted on some ignitions by a “run” position and is the key position just prior to holding the key in the “start” position to start the engine. Although this is the same key position as KOER, the KOEO position implies that the motor vehicle engine is not running.

“Key on engine running” or “KOER” means the motor vehicle ignition position of key-on, engine-running. This may be denoted on some ignitions by a “run” position and is the key position just prior to holding the key in the “start” position to start the engine. Although this is the same key position as KOEO, the KOER position implies that the motor vehicle engine is running.

...

“Malfunction indicator light” or “MIL” means the light located on the dashboard instrument panel of an OBD-equipped motor vehicle that indicates a malfunction detected by the OBD system by illuminating the words “check engine,” “service engine,” or an engine pictograph with the word “check” or “service.”

...

“On board diagnostics” or “OBD” means an automotive diagnostic system complying with California OBD regulations at Title 13 California Code section 1968.1 or EPA OBD regulations at 40 CFR Part 86.

...

“Readiness” means the state of a motor vehicle’s OBD system that has successfully completed self-diagnostic routines on all supported subsystems as indicated by a showing of “ready” on all supported readiness monitors. Readiness does not indicate that the motor vehicle has passed the OBD inspection but only that the motor vehicle’s OBD system is ready for inspection.

“Readiness monitors” means the various indicators used by a motor vehicle's on board computer to record the status of subsystem diagnostic routines. A readiness monitor may record a subsystem as “ready,” “not ready” or “not supported.”

...

“Retrofit device” means [a best available retrofit technology that is installed on an on-road diesel vehicle or on a piece of off-road diesel equipment pursuant to N.J.A.C. 7:27-32] **any emissions control apparatus, including exhaust aftertreatment device, that has been installed on the vehicle or engine after the original manufacturing date of the complete vehicle.**

.

...

“Smokemeter” means [smoke measurement equipment designed and manufactured in accordance with specifications set forth at N.J.A.C. 7:27B-4.6], **in the context of this subchapter, a component of diesel emissions testing equipment. The smokemeter is not separable from the diesel emissions testing equipment. Inspections performed using a smokemeter must employ diesel emissions testing equipment.**

...

7:27B-4.2 General instructions for all tests{tc \11 "7:27B-4.2 General instructions for all tests}

(a) An inspector conducting an emissions test on a **heavy-duty** diesel[-powered motor] 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.- 2. (No change.)

3. Prior to testing, ensure that the engine is at normal operating temperature by operating the vehicle on a highway or a chassis dynamometer with a road load for a minimum of 15 minutes. For testing at a DEIC, only, confirm proper engine operating temperature by inserting an oil temperature probe through the oil dipstick tube into the crankcase oil, so that the oil temperature as measured during

the test will be recorded as part of the analyzer printout at the conclusion of the test. Oil temperature shall be at least [70]~~60~~ degrees Celsius ([160] ~~140~~ degrees Fahrenheit), [and] or water temperature shall be at least 82 degrees Celsius (180 degrees Fahrenheit) but not overheating;

4.- 5. (No change.)

6. [Ensure that the ambient temperature at the test location is between 35 degrees and 95 degrees Fahrenheit and that the temperature is above the dew point by using a thermometer and hygrometer.] **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. [Do not conduct the test if the temperature at the test location is below 35 degrees or above 95 degrees Fahrenheit, or if the temperature is at or below the dew point];

7.- 8. (No change.)

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 [blue] 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;

[11. At the conclusion of the inspection of a diesel-powered motor vehicle at a DEIC, ensure that a printed test report has been produced by the smokemeter which, at a minimum, includes (a)11i through xvii below. If the smokemeter is not capable of printing out (a)11xiv through xvii below, this information shall be manually entered in the print test report by the inspector.

- i. The smoke opacity value for each snap in sequence, including preliminary cleanouts;
- ii. The final test result, in percent opacity;
- iii. The engine oil temperature;
- iv. The engine RPM and smoke opacity strip chart; or the engine curb idle speed and high idle speeds during the test, and the engine RPM rise times;
- v. The date;
- vi. The time;
- vii. The location;
- viii. The name of the diesel emission inspection center;
- ix. The diesel emission inspection center license number;
- x. The stack size;
- xi. The smoke opacity standard;

- xii. “Pass” or “Fail” of test results compared to the appropriate smoke opacity standard;
 - xiii. The license number of the diesel emission inspection center employee conducting the smoke opacity test;
 - xiv. The customer name;
 - xv. The tractor VIN;
 - xvi. The engine model year; and
 - xvii. The customer driver’s license number; and
12. At the conclusion of the smoke opacity test, confirm that the smokemeter reads a value of less than ± 2.0 percent opacity when the smokemeter is disengaged from the vehicle exhaust stream.]

(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 and the vehicle's engine oil temperature gauge to confirm that the vehicle is at a normal operating temperature, as indicated by the gauges; 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) and that engine oil temperature is at least 80 degrees Celsius (175 degrees Fahrenheit). If there is no oil

temperature gauge, insert a temperature probe through the oil dip stick tube and into the engine oil to confirm normal operating temperature;

ii. Operate the vehicle on the road, or on a chassis dynamometer under road load, at speeds above 35 MPH for at least 20 minutes.

5. Discontinue testing any vehicle in an overheated condition, as indicated by a temperature gauge or warning light, or boiling of engine coolant;

[(b)](c) Equipment to be used in conducting [a smoke opacity] **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 [a smokemeter] **diesel emissions testing equipment** as set forth in N.J.A.C. 7:27B-4.6.

[(c)](d) An inspector conducting a motor vehicle emissions test on a diesel-powered motor vehicle as set forth in this subchapter shall use only [motor] **diesel** [vehicle] **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. – 4. (No change.)

[(d)](e) The Department maintains a list of approved equipment for specific test procedures.

The Department shall periodically review and evaluate 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:

New Jersey Department of Environmental Protection

[Bureau of Transportation Control]**Diesel Risk Reduction/HDDVIP**

P.O. Box [437]**418**

Trenton, N.J. 08625-0[437]**418**

7:27B-4.3 Procedures for using a smokemeter to measure the smoke opacity of heavy-duty diesel vehicles and diesel buses{tc \l1 "7:27B-4.3 Procedures for using a smokemeter to measure the smoke opacity of heavy-duty diesel vehicles and diesel buses}

(a)-(c) (No change.)

[(d) The testing procedures for the visible black smoke screening test, required pursuant to N.J.A.C. 7:27-14.5, shall be performed as follows:

1. Determine whether the vehicle's governor and automatic transmission, as applicable, are functioning properly. Do not proceed with the testing of a vehicle which is determined to have a disabled or an improperly functioning governor or automatic transmission until the governor or 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)]

7:27B-4.4 Emission control apparatus, retrofit device and closed crankcase ventilation system examination procedure {tc \l1 "7:27B-4.4 Emission control apparatus 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)]**7:27-14.5(d)**, 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]**all emission control apparatus and exhaust system components are** present on the motor vehicle.
- (b) [The absence of any exhaust aftertreatment determined pursuant to (a) above to be included in a motor vehicle or diesel engine's certified configuration]**If any emission control apparatus or exhaust system component has been disconnected, detached, deactivated, or in any other way rendered inoperable or less effective than designed by the original equipment or vehicle or engine manufacturer, the vehicle shall fail** [shall result in a determination of failure to pass] the emission control apparatus compliance examination.

7:27B-4.6 Specifications for [a smokemeter] diesel emissions testing equipment for determining compliance with N.J.A.C. 7:27-14{tc \1 "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.]

(b) Equipment used for performing the OBD inspection, as set forth at N.J.A.C. 7:27B-4.8, shall be approved by the Department as provided at N.J.A.C. 7:27B-4.2(d) and shall meet the requirements of 40 C.F.R. 85.2231, incorporated herein by reference.

7:27B-4.7 [(Reserved)]**Procedures for the visible smoke test**

(a) An inspector conducting a visible smoke test to determine a diesel vehicle's compliance with the inspection requirements set forth at N.J.A.C. 7:27-14.5(c)1 shall perform the test as follows:

1. Place the vehicle in neutral gear with all accessories off and the emergency or parking brake secured;

2. Increase the engine speed to an engine speed greater than the idle mode, and observe the exhaust emissions and crankcase emissions for visible continuous smoke;

3. If there is visible smoke in the exhaust emissions or crankcase emissions for a period in excess of three consecutive seconds, the motor vehicle has failed the smoke test; and

4. If there is no visible smoke in the exhaust emissions or crankcase emissions for a period in excess of three consecutive seconds, the motor vehicle has passed the smoke test.

7:27B-4.8 [(Reserved)]**Procedures for the on board diagnostics inspection**{tc \l1 "7:27B-5.7
Procedures for the on-board diagnostics inspection}

(a) The procedure for the OBD inspection, to be used to determine a light-duty diesel vehicle's compliance with the OBD inspection requirements at N.J.A.C. 7:27-14.5(c)2, is as follows:

- 1. Turn off the motor vehicle's engine and connect the analyzer to the motor vehicle computer via the DLC located on the motor vehicle;**

- 2. If the DLC is damaged, missing or obstructed, the motor vehicle has failed the OBD inspection;**

- 3. Determine if the MIL is functional by briefly turning the motor vehicle ignition system to the KOEO position;**

- 4. If the MIL is not functional, the motor vehicle has failed the OBD inspection;**

- 5. Start the motor vehicle and leave the engine running. Determine if the MIL remains illuminated while the engine is running;**

- 6. If the MIL is illuminated with the engine running, the motor vehicle has failed the OBD inspection;**

7. The analyzer will attempt to communicate with the motor vehicle's OBD system;

8. If the analyzer cannot successfully communicate with the motor vehicle's OBD system, the motor vehicle has failed the OBD inspection;

9. If the analyzer successfully communicates with the motor vehicle OBD system, it will then retrieve stored information relating to the identification of the motor vehicle and any malfunctions recorded by the OBD system;

10. If the analyzer determines that the OBD system or the motor vehicle is malfunctioning, the motor vehicle has failed the OBD inspection; and

11. If the analyzer indicates that the motor vehicle does not meet the EPA's criteria for "readiness," that is, if the vehicle's OBD system does not indicate that the critical number of supported readiness monitors have been set, the motor vehicle is deemed "not ready" for an OBD inspection and has failed the OBD inspection.

12. If the analyzer indicates that the motor vehicle is deemed "ready" and determines that all components of the OBD system are functioning properly,

**and the OBD system is not indicating any malfunctions of the motor vehicle,
then the motor vehicle has passed the OBD inspection;**

(b) The OBD inspection procedure is largely a process whereby the diesel emissions testing equipment and the motor vehicle's OBD system interface and exchange information. As such, the description of the on board diagnostics inspection procedure set forth at (a) above is a brief, simplified description that does not contain explicit technical details. A more detailed flow chart version, reflecting the logic flow of pass and fail determinations within the procedure, as well as the Department's OBD equipment specifications, which contain additional technical details, are available electronically by contacting the Department's Bureau of Motor Vehicle Inspection and Maintenance at (609) 530-4035.

SUBCHAPTER 5 AIR TEST METHOD 5: TESTING PROCEDURES FOR GASOLINE-FUELED MOTOR VEHICLES

7:27B-5.1 Definitions{tc \l1 "7:27B-5.1 Definitions}

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise.

...

“Gasoline-fueled” means powered **in whole or in part** by a hydrocarbon fuel other than diesel fuel, including, but not limited to, gasoline, natural gas, liquefied petroleum gas, or propane or powered by alcohol fuels, hydrocarbon-alcohol fuel blends or hydrogen.

...

“Motor vehicle testing equipment” means equipment used to conduct a test of a gasoline-fueled motor vehicle set forth at N.J.A.C. 7:27B-5, and which satisfies all applicable specifications set forth at N.J.A.C. [7:27B-5.9] **7:27B-5.8**, Specifications for motor vehicle testing equipment for use in the New Jersey Enhanced Inspection and Maintenance Program. For motor vehicle inspections conducted pursuant to N.J.A.C. 7:27-15 and this subchapter, this term shall include all devices used for performing a motor vehicle inspection, including, but not limited to, exhaust gas analyzers, dynamometers, on-board diagnostic scanners and analyzers, fuel cap leak testers, and computers and related software.

...

“On board diagnostics” or “OBD” means an automotive diagnostic system complying with California OBD regulations **at Title 13 California Code section 1968.1** or EPA OBD [II] regulations **at 40 CFR Part 86** [effective for model year 1996 and newer motor vehicles].

7:27B-5.2 General instructions for all tests{tc \l1 "7:27B-5.2 General instructions for all tests}

- (a) An inspector, conducting an emissions test on a gasoline-fueled motor vehicle pursuant to any provision of this subchapter, including, but not limited to, N.J.A.C. 7:27B-5.3

through 5.8, inclusive, shall perform the test in accordance with the following general procedures:

1. - 3. (No change.)

4. Prior to testing, ensure that the vehicle is at normal operating temperature by doing one of the following:

i. (No change.)

ii. Operate the vehicle on the road, or on a chassis dynamometer under road load, at speeds above 35 MPH for at least 20 minutes; [or

iii. Operate the vehicle on a chassis dynamometer under the ASM5015 load appropriate for the vehicle, for at least 10 minutes;]

5. - 8. (No change.)

(b) Equipment to be used in conducting an emissions test on a gasoline-fueled motor vehicle in accordance with N.J.A.C. 7:27-15.5 shall satisfy all specifications and standards for motor vehicle testing equipment as set forth at N.J.A.C. [7:27B-5.9]**7:27B-5.8.**

(c) An inspector conducting a motor vehicle emissions test on a gasoline-fueled motor vehicle as set forth in this subchapter shall use only motor vehicle 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 conforms to the requirements set forth at N.J.A.C. [7:27B-5.9]**7:27B-5.8;**

2.-4. (No change.)

(d) The Department maintains a list of approved equipment for specific test procedures. The Department shall periodically review and evaluate 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:

New Jersey Department of Environmental Protection

Bureau of [Transportation Control] **Motor Vehicle Inspection and Maintenance**

PO Box 437

Trenton, N.J. 08625-0437

7:27B-5.4 Procedures for the [2,500 RPM] two speed idle test{tc \l1 "7:27B-5.4 Procedures for the 2,500 RPM test}

(a) An inspector conducting a [2,500 RPM] **two speed idle** test to determine a gasoline-fueled motor vehicle's compliance with the exhaust emission standards set forth in N.J.A.C. 7:27-15.6(b)2 shall perform the test [as follows:] **in accordance with 40 CFR 85.2215, Two speed idle test -- EPA 91, incorporated herein by reference.**

- [1. Insert the sample probe into the motor vehicle's tailpipe to a minimum depth of 10 inches. If the motor vehicle's exhaust system prevents insertion to this depth, use a tailpipe extension. For motor vehicles equipped with multiple tailpipes, take exhaust gas measurements from all tailpipes simultaneously;
2. For a motor vehicle of model year 1995 or earlier, use a tachometer or other device approved by the Department to measure engine speed. Attach the tachometer or other device to the motor vehicle in accordance with the tachometer or device manufacturer's instructions. For 1996 and newer model year vehicles, use the OBD data link connector to monitor RPM. In the event that an OBD data link connector is not available or that an RPM signal is not available over the data link, use instead a tachometer;
3. Ensure that the vehicle's transmission is in park or neutral;

4. Increase the vehicle engine speed from idle to between 2,200 and 2,800 RPM and maintain it at that level for the duration of the test, not to exceed 30 seconds. If the engine speed falls and remains below 2,200 RPM or exceeds and remains above 2,800 RPM for more than two consecutive seconds during the test period, invalidate the measured value for that sampling period and extend the test duration accordingly. If any excursion outside of the allowable RPM range lasts for more than ten seconds, invalidate the test, and initiate another 2,500 RPM test;
5. Measure exhaust concentrations as percent carbon monoxide and parts per million hydrocarbons after obtaining stabilized readings or at the end of 30 seconds, whichever occurs first;
6. If the percent carbon monoxide or parts per million hydrocarbons recorded in (a)5 above exceeds the applicable standards specified in Table 2 at N.J.A.C. 7:27-15.6, repeat the 2,500 RPM test procedure in accordance with (a)4 and 5 above after the vehicle engine has been operated at idle mode for at least 30 seconds and demonstrates no signs of overheating as determined at N.J.A.C. 7:27B-5.2(a)4;
7. If the percent carbon monoxide or parts per million hydrocarbons recorded in (a)6 above exceeds the applicable standards specified in Table 2 at N.J.A.C. 7:27-15.6, the motor vehicle has failed the 2,500 RPM test; and

8. If the percent carbon monoxide or parts per million hydrocarbons recorded in (a)6 or 7 above does not exceed the applicable standards specified in Table 2 at N.J.A.C. 7:27-15.6, the motor vehicle has passed the 2,500 RPM test.]

[7:27B-5.5 Procedures for the ASM5015 test

- (a) An inspector conducting an ASM5015 test to determine a gasoline-fueled motor vehicle's compliance with the exhaust emission standards set forth at N.J.A.C. 7:27-15.6(b)3 shall perform the test as follows:
 1. Ensure that the dynamometer is warmed up, in stabilized operating condition, and is adjusted and calibrated in accordance with the procedures recommended by the dynamometer manufacturer;
 2. Position the motor vehicle on the dynamometer and, if necessary, secure it according to protocol recommended by the dynamometer manufacturer;
 3. Set the dynamometer at a load setting determined by the approved motor vehicle emission testing equipment after entry of appropriate motor vehicle parameters, such as body style and number of engine cylinders, in response to the equipment-generated prompts;
 4. Insert the sample probe into the motor vehicle's tailpipe to a minimum depth of 10 inches. If the motor vehicle's exhaust system prevents insertion to this depth, use

a tailpipe extension. For motor vehicles equipped with multiple tailpipes, take exhaust gas measurements from all tailpipes simultaneously;

5. When conducting the ASM5015 test, operate a motor vehicle with an automatic transmission with the gear selector in drive, and operate a motor vehicle with a manual transmission in first, or, if more appropriate, second gear.
6. Accelerate the motor vehicle to a speed of 15 MPH as indicated on the dynamometer speed indicator. Maintain this speed, ± 1.0 MPH, for the duration of the test sequence. The test sequence shall begin when the dynamometer speed reaches 15 MPH and shall consist of a stabilization period and a pass/fail decision period as follows:
 - i. The stabilization period shall begin at a test time of zero seconds ($T = 0$) and shall proceed until an elapsed time of $T = 25$ seconds;
 - ii. The pass/fail decision period shall immediately follow the stabilization period, beginning at $T = 26$ seconds. The vehicle shall pass the ASM5015 test if, at any point between $T = 26$ seconds and $T = 90$ seconds, measurements made of the hydrocarbons, carbon monoxide and oxides of nitrogen in the exhaust emissions indicates that the concentration of each

is less than or equal to the applicable standards established in Table 3 at N.J.A.C. 7:27-15.6;

- iii. If, prior to $T = 90$ seconds, the vehicle has passed the ASM5015 test, immediately terminate the test in accordance with (a)7 below; and
 - iv. If, at $T = 90$ seconds, the vehicle has not passed the ASM5015 test, the vehicle shall be determined to have failed the ASM5015 test and the test shall be immediately terminated in accordance with (a)7 below; and
7. Conclude the ASM5015 test by placing the vehicle's transmission in park or neutral after safely bringing the vehicle's drive wheels to a complete stop using the vehicle's brakes.]

[7:27B-5.6] 7:27B-5.5 Emission control apparatus examination procedure{tc \l1 "7:27B-5.6 Emission control apparatus examination procedure}

(a)-(c) (No change.)

[7:27B-5.7] 7:27B-5.6 Procedures for the on-board diagnostics inspection{tc \l1 "7:27B-5.7 Procedures for the on-board diagnostics inspection}

(a) The procedure for the OBD inspection, to be used to determine a motor vehicle's compliance with the OBD inspection requirements at N.J.A.C. 7:27-15.5(f)2, is specified as follows:

1. - 4. (No change.)

5. Start the motor vehicle and leave the engine running. **Determine if the MIL remains illuminated while the engine is running;**

6. If the MIL is illuminated with the engine running, the motor vehicle has failed the OBD inspection;

7. The analyzer will attempt to communicate with the motor vehicle's OBD system;

[6.]**8.** (No change in text.)

[7.]**9.** (No change in text.)

[8.]**10.** (No change in text.)

[9.]**11.** (No change in text.)

[10.]**12.** (No change in text.)

[11.]**13.**A motor vehicle that failed an initial OBD inspection for not having a properly functioning catalyst must, on reinspection, [pass both the OBD inspection and the appropriate tailpipe exhaust test, as determined at N.J.A.C. 7:27-15.5(g), if, on reinspection, the readiness monitor is not set (that is, is “not ready”) for the motor vehicle’s catalyst.] **have its catalyst monitor set to ready and must meet all other criteria required to pass the OBD inspection.**

- (b) The OBD inspection procedure is largely a process whereby the motor vehicle testing equipment and the motor vehicle’s OBD system interface and exchange information. As such, the description of the on-board diagnostics inspection procedure set forth at (a) above is a brief, simplified description that does not contain explicit technical details. A more detailed flow chart version, reflecting

the logic flow of pass and fail determinations within the procedure, as well as the Department's OBD equipment specifications, which contain additional technical details, are available electronically by contacting the Department's Bureau of [Transportation Control]Motor Vehicle Inspection and Maintenance at (609) 530-4035.

(c) (No change.)

**[7:27B-5.8] 7:27B-5.7 Procedures for the fuel cap leak test{tc \l1 "7:27B-5.8
Procedures for the fuel cap leak test}**

- (a) An inspector conducting a fuel cap leak test to determine a gasoline-fueled motor vehicle's compliance with the fuel cap leak test requirements at N.J.A.C. 7:27-15.5(f)4 shall perform the test [as follows:
1. On and after the date EPA promulgates the procedures to be used for the fuel cap leak test at 40 C.F.R. 85.2222, or elsewhere in Title 40, such procedures and standards and all subsequent revisions thereto shall be incorporated herein by reference;
 2. Until EPA promulgates such procedures and standards,] **in accordance with** the applicable procedures and standards [shall be those] described in

the EPA technical guidance document EPA420 R-00-007, entitled IM240 and Evap Technical Guidance, incorporated herein by reference. A copy of this EPA technical guidance document may be obtained from the Public Access Center in the Department of Environmental Protection.

[7:27B-5.9] 7:27B-5.8 Specifications for motor vehicle testing equipment for use in the New Jersey Enhanced Inspection and Maintenance Program{tc \l1 "7:27B-5.9 Specifications for motor vehicle testing equipment for use in the New Jersey Enhanced Inspection and Maintenance Program}

(a) Equipment used for performing the idle test, as set forth at N.J.A.C. 7:27B-5.3(b), and the [2,500 RPM] **two speed idle** test, as set forth at N.J.A.C. 7:27B-5.4, shall conform with the requirements for such equipment at [40 C.F.R. 51 Subpart S Appendix D - Steady State Short Test Equipment,] **40 CFR 85.2225, Steady state test exhaust analysis system – EPA 91**, and all subsequent revisions thereto, incorporated herein by reference.

(b) [Equipment used for performing the ASM5015 test, as set forth at N.J.A.C. 7:27B-5.5, shall conform with the following:

1. On and after the date EPA promulgates the ASM5015 equipment specifications at 40 C.F.R. 85.3, such specifications and all subsequent revisions thereto shall be incorporated herein by reference;
 2. Until EPA promulgates such specifications, the applicable specifications shall be those described in the EPA technical guidance document EPA-AA-RSPD-I/M-96-2, entitled Acceleration Simulation Mode Test Procedures, Emission Standards, Quality Control Requirements, and Equipment Specifications, July 1996, incorporated herein by reference. A copy of this EPA technical guidance document may be obtained from the Public Access Center in the Department of Environmental Protection.
- (c) Equipment used for performing the fuel cap leak test, as set forth at N.J.A.C. [7:27B-5.8]7:27B-5.7, shall be in accordance with the [following:
1. On and after the date EPA promulgates the evaporative system inspection equipment specifications at 40 C.F.R. 85.2227, such specifications and all subsequent revisions thereto shall be incorporated herein by reference;
 2. Until EPA promulgates such specifications, the] applicable specifications [shall be those] described in the EPA technical guidance document EPA420 R-00-007, entitled IM240 and Evap Technical Guidance, incorporated herein by reference. A copy of this EPA technical guidance

document may be obtained from the Public Access Center in the Department of Environmental Protection.

- (d) Equipment used for performing the OBD inspection, as set forth at N.J.A.C. [7:27B- 5.7]**7:27B-5.6**, shall be approved by the Department as provided at N.J.A.C. 7:27B-5.2(c) and shall conform with the provisions of 40 C.F.R. 85.2231, and all subsequent revisions thereto, incorporated herein by reference.

Based on consultation with staff, I hereby certify that the above statements, including the Federal Standards Analysis addressing the requirements of Executive Order No. 27 (1994), permits the public to understand accurately and plainly the purposes and expected consequences of this proposal. I hereby authorize this proposal.

Date: _____

Mark N. Mauriello, Acting Commissioner
Department of Environmental Protection