

This proposal has been filed with the Office of Administrative Law which may edit it before publishing it in the New Jersey Register. Please refer to the January 22, 2002 New Jersey Register for the official text of the proposal.

ENVIRONMENTAL PROTECTION OFFICE OF AIR QUALITY MANAGEMENT

Enhanced Inspection and Maintenance Program

Proposed Amendments: N.J.A.C. 7:27-15.1, 15.5 and 15.6; N.J.A.C. 7:27B-5.1, 5.2, 5.10 and 5.12.

Proposed Recodifications: N.J.A.C. 7:27B-5.7 as N.J.A.C. 7:27B-5.6, N.J.A.C. 7:27B-5.10 as N.J.A.C. 7:27B-5.7, N.J.A.C. 7:27B-5.11 as N.J.A.C. 7:27B-5.8 and N.J.A.C. 7:27B-5.12 as N.J.A.C. 7:27B-5.9

Proposed Repeals: N.J.A.C. 7:27B-5.6, 5.8 and 5.9.

Proposed New Rules: Appendices to N.J.A.C. 7:27-15 and N.J.A.C. 7:27B-5.

Authorized: By Robert C. Shinn, Jr., 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 N.J.S.A. 39:8-41 et seq.; specifically, 41-58.

Calendar Reference: January 7, 2002: 34 N.J.R. 323

DEP Docket Number: 39-01-12/246

Proposal Number: PRN 2002-

A public hearing concerning this proposal will be held at 10:00 a.m. on **Monday, February 25, 2002, at:**

First Floor Public Hearing Room
Department of Environmental Protection
401 E. State Street
Trenton, New Jersey

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Submit written comments, identified by the DEP Docket Number given above, by close of business **February 28, 2002**, to:

Attn: Stacey Roth, Esq.
DEP Docket No. _____
Office of Legal Affairs
New Jersey Department of Environmental Protection
PO Box 402
Trenton, N.J. 08625-0402

Several documents are cited within this notice as references or as documents being incorporated by reference. Copies of these documents may be requested from:

New Jersey Department of Environmental Protection
Public Access Center
401 E. State Street, 1st floor
PO Box 402
Trenton, N.J. 08625

An additional source of documents cited within this notice as documents being incorporated by reference is the website of the United States Environmental Protection Agency (EPA) at: <http://www.epa.gov/epahome/rules.html#proposed>.

Visit our website at: www.state.nj.us/dep/aqm, where Air Quality Management rules, proposals, adoptions and SIP revisions are available.

The agency proposal follows:

Summary

The Department of Environmental Protection (the Department) is proposing new rules, repeals and amendments to N.J.A.C. 7:27-15, Control and Prohibition of Air Pollution from Gasoline-Fueled Motor Vehicles, and N.J.A.C. 7:27B-5, Air Test Method 5: Testing Procedures for Gasoline-Fueled Motor Vehicles, its rules governing the test procedures and standards for the inspection of gasoline-fueled motor vehicles.

Background

Procedural History:

New Jersey is required by the Clean Air Act to implement an enhanced inspection and maintenance (I/M) program to assist the State in attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for both ozone and carbon monoxide (CO). The NAAQS are set to protect public health and welfare. On October 2, 1995, the Department adopted new rules and amendments to N.J.A.C. 7:27-15 and N.J.A.C. 7:27B-4 (the latter subsequently recodified at N.J.A.C. 7:27B-5) that established the necessary test procedures and standards for implementation of an enhanced I/M program for light-duty, gasoline-fueled motor vehicles in New Jersey. (See 27 N.J.R. 3806(a).) The Department of Transportation, (DOT), Division of Motor Vehicles (DMV), adopted complementary rules which provided for the operational requirements of the enhanced I/M program on that same date. (See 27 N.J.R. 3820(a).) On June 29, 1995, the Department submitted both its and the DMV's proposals to the EPA as part of an enhanced I/M State Implementation Plan (SIP) revision. A subsequent SIP revision was submitted on March 27, 1996, modifying the enhanced I/M program to take advantage of the

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greater flexibility offered under the provisions of the National Highway System Designation Act of 1995 (NHS Act), P.L. 104-59.

On May 14, 1997, the EPA granted conditional interim approval to New Jersey’s enhanced I/M SIP. (See 40 C.F.R. 52, 62 Fed. Reg. 26401 (May 14, 1997). The State subsequently satisfied the conditions of this approval and the EPA granted interim approval of New Jersey’s enhanced I/M SIP. The State submitted a SIP revision to the EPA on August 31, 2001, that includes the remaining items needed for the EPA to grant final approval of New Jersey’s enhanced I/M SIP program. (See “The State of New Jersey, Department of Environmental Protection, Enhanced Inspection and Maintenance (I/M) Program for the State of New Jersey, Final National Highway Systems Designation Act (NHSDA) Submittal and Revised Performance Standard Modeling, SIP Revision”, August 20, 2001.) On September 11, 2001, the EPA proposed to approve the August 31, 2001, SIP revision and to grant final approval to the State’s overall enhanced I/M SIP. (See 66 Fed. Reg. 47130 (September 11, 2001).)

Both the Department and the DMV have made modifications to the enhanced I/M program design. These modifications can be found in the New Jersey Register as follows:

Proposals:	N.J.R. citation	Adoptions:	N.J.R. citation
January 2, 1996	28 N.J.R. 138(a)	July 1, 1996	28 N.J.R. 3413(a)
May 6, 1996	28 N.J.R. 2298(b) 28 N.J.R. 2334(a)	February 3, 1997 March 3, 1997	29 N.J.R. 498(a) 29 N.J.R. 788(a)
March 3, 1997	29 N.J.R. 726(a)	July 7, 1997	29 N.J.R. 2826(b)

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September 7, 1999	31 N.J.R. 2572(a) 31 N.J.R. 2466(a)	November 15, 1999 December 6, 1999	31 N.J.R. 3672(a) 31 N.J.R. 4078(a)
June 4, 2001	33 N.J.R. 1894(a)	October 15, 2001	33 N.J.R. 3651(a)

In addition, the provisions of Air Test Method 4: Testing Procedures for Motor Vehicles which pertain to the testing of gasoline-fueled motor vehicles were recodified as Air Test Method 5, at N.J.A.C. 7:27B-5 in the October 1, 2001, New Jersey Register. (See 33 N.J.R. 3550(a))

Program History:

The State of New Jersey implemented its enhanced inspection and maintenance (I/M) program on December 13, 1999. The enhanced I/M program is designed to detect gasoline-fueled motor vehicles operating with excessive emissions under test conditions that represent more realistic driving conditions than New Jersey's basic I/M program, which it replaced. In addition, the enhanced I/M program inspects vehicles to detect excess emissions of nitric oxide (NO), a pollutant that was not previously measured as part of the basic I/M program, which only measured emissions of carbon monoxide (CO) and hydrocarbons (HC). (Hydrocarbons (HCs) are a subset of the volatile organic compound (VOC) category of pollutants; nitric oxide (NO) is a subset of the NO_x category of pollutants.)

Over the past two years, New Jersey's enhanced I/M program has effectively identified vehicles operating with emissions in excess of the State's standards. The State's data from July 1, 2000 through December 31, 2000, indicates that New Jersey motorists complied with enhanced I/M program requirements by repairing these failed vehicles. Those repairs have resulted in overall reductions of 55 percent for HC, 58 percent for NO_x and 84 percent for carbon monoxide. (See The State of

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New Jersey Department of Environmental Protection, Enhanced Inspection and Maintenance (I/M) Program for the State of New Jersey, Final National Highway Systems Designation Act (NHSDA) Submittal and Revised Performance Standard Modeling, SIP Revision, August 20, 2001.)

New Jersey's enhanced I/M program rules have provided for implementation of the program using the following primary components: one of two enhanced exhaust emissions tailpipe tests (the dynamometer-based ASM5015, or, when not appropriate to the vehicle, the 2,500 RPM test); and three evaporative emissions tests known variously as the purge test, the pressure test, and the fuel cap leak test. The program rules also provided for the introduction of the on-board diagnostic (OBD) inspection for model years (MY) 1996 and newer vehicles, beginning January 1, 2001.

Both of the enhanced I/M tailpipe tests measure the vehicle exhaust of a MY 1981 and newer vehicle by inserting a sample probe into the vehicle's tailpipe while the engine is running. With the exception of low mileage vehicles (that is, a motor vehicle that is driven less than 10,000 miles during a biennial inspection period) and vehicles employing full-time all-wheel drive or non-disengagable traction control, the exhaust emissions from these vehicles are measured using the ASM5015 test, that is, while the vehicle is driven on a dynamometer to simulate driving conditions. For the exempted vehicles, the exhaust emissions are measured while the engine is not in gear and the engine speed is increased from idle to around 2,500 revolutions per minute (RPM), using the 2,500 RPM test. (The idle test, which is the basic tailpipe test conducted on older, pre-1981 model year vehicles, measures emissions while the engine idles.) The State's enhanced I/M program rules provided for a phase-in of the "final" emission standards for the ASM5015 test; "initial" standards,

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implemented at the inception of the program, were to be replaced with "final" standards on and after January 1, 2002.

While the State has not implemented either the purge or the pressure test, both are referenced in the enhanced I/M program rules. (The fuel cap leak test is a fully-implemented component of the enhanced I/M program that would not be affected by this rulemaking.)

The on-board diagnostics, or OBD, inspection is not, as such, an exhaust emissions test. Rather, it involves the downloading of information from a computer system "on-board" the vehicle that monitors key sensors on the engine and other vehicle components related to emissions. (Most model year 1996 and newer vehicles sold in the United States come OBD-equipped; at present, these vehicles comprise approximately 50 percent of the State's overall vehicle fleet, and that fraction of the overall vehicle population is expected to be closer to 60 percent in 2003 when the State proposes to begin its phased-in OBD inspections.) An indicator light on the dashboard (malfunction indicator light, or MIL) alerts the motorist to potential problems with the vehicle. More detailed information is available to the inspector/technician when the on-board computer is linked to the testing computer and these codes are downloaded. Thus, this test does not measure actual emissions but rather is designed to identify problems with the vehicle's emissions-related systems generally, before they result in increased emissions and equipment failure.

Implementation of the OBD component of the program has been delayed in New Jersey and elsewhere in the nation, and the EPA concurs in this delay. The EPA and the State's enhanced I/M program rules in the early and mid-1990s

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provided for the mandatory implementation of the OBD inspection component on and after January 1, 2000; in 1998 the EPA changed that mandatory start date to January 1, 2001. The EPA again delayed the start date for mandatory OBD inspections (to January 1, 2002) when it adopted amendments to its enhanced I/M program rules on April 5, 2001 (66 Fed. Reg. 18156). While this most recent rulemaking offered states greater flexibility in implementing OBD inspections, the EPA only issued its OBD guidance document (which it continues to modify) this past June 2001.

By this proposal, the Department is proposing the latest in a series of refinements to New Jersey's enhanced I/M program. Primarily, the Department is proposing to modify the framework, procedures and testing schedule by which model year 1996 and newer vehicles would be subject to OBD inspections. Other major changes include the Department's proposal to streamline and modify the emission standards for the ASM5015 exhaust emissions test that would go into effect on January 1, 2003. The Department is also proposing to remove all references to the evaporative pressure and purge tests while retaining the evaporative fuel cap leak test. Finally, the Department is proposing to exempt from dynamometer testing those vehicles that are registered as school buses and that are under the jurisdiction of the DMV's School Bus Inspection Unit.

In addition to these major proposed changes, the Department is also proposing several minor changes to its enhanced I/M program. The major proposed changes outlined above are discussed in greater detail below. All changes are summarized in a section-by-section discussion later in this document.

Implementation of On-Board Diagnostic Inspections and Schedule:

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Currently, the Department's rule provides that a motor vehicle inspection under this subchapter includes, as of January 1, 2001, an OBD inspection for all model year 1996 and newer vehicles not otherwise exempt from OBD inspection. However, New Jersey has not implemented this portion of its enhanced I/M program because, as the time for implementation approached, the EPA was still in the process of promulgating amendments to its rules governing the implementation of OBD inspections in state inspection programs. Furthermore, the EPA had not yet finalized its guidance on how states would develop the criteria to determine whether a vehicle would pass or fail this component of the inspection process. As mentioned above, on April 5, 2001, the EPA promulgated amendments to its OBD requirements, entitled "Amendments to Vehicle Inspection Maintenance Program Requirements Incorporating the Onboard Diagnostic Check Final Rule." (See 66 Fed. Reg. 18155.) In June of 2001, the EPA finalized its guidance on how to implement the OBD portion of an inspection program. (See "Performing Onboard Diagnostic System Checks as Part of a Vehicle Inspection and Maintenance Program," Transportation and Regional Programs Division, Office of Transportation and Air Quality, U.S. Environmental Protection Agency, June 2001.)

The April 5, 2001, amendments to the EPA's rule provide for the following: 1) the start date for the mandatory implementation of OBD inspections by all states was deferred for one year; that is, the mandatory start date is now January 1, 2002, instead of January 1, 2001; 2) states can apply to the EPA for an extension of the January 2002 start date of up to 12 additional months, establishing an alternative start date of no later than January 1, 2003, provided they can show just cause that the alternative start date is "the best a state can reasonably do" in terms of implementing OBD inspections into their I/M program; and 3) states can take

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advantage of a one-time phase-in of the mandatory OBD inspection requirements which would defer for one test cycle the repair requirement for those vehicles that fail an OBD inspection but pass a subsequent tailpipe test. This phase-in approach was designed to help ease the introduction of full-fledged OBD inspections on MY 1996 and newer, OBD-equipped vehicles. During phase-in, the OBD inspection would effectively be used as a screen to help identify vehicles that are clean and for which no additional emissions testing would be required. However, once the vehicle is identified as failing the OBD inspection, it would be given a second-chance tailpipe test to determine if the fault identified by the OBD inspection has reached a point where the vehicle's current emission performance is adversely affected. The EPA's amended rules provide that this phase-in option can be combined with the extension of the start date, so that states like New Jersey that have a two-year inspection cycle can extend the start of a fully implemented mandatory OBD program until January 1, 2005.

On October 8, 2001, consistent with the options provided by the EPA's amended rules, DEP Commissioner Robert C. Shinn, Jr. sent a letter to the EPA indicating the State's intent to request a one-year extension of the January 1, 2002, start date and outlining the State's plan to phase-in the mandatory OBD inspection program.

Extension of Start Date: One of the issues complicating the introduction of OBD inspections in New Jersey is the hybrid nature of its inspection network design and the need to modify two distinct software applications (one for each type of inspection facility) while assuring compatibility with a common vehicle inspection database (VID). Unlike those states with entirely centralized or entirely decentralized enhanced I/M programs, New Jersey employs an inspection program

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design that is hybrid in nature; that is, the program includes both centralized test-only inspection facilities (hereinafter referred to as CIFs) and private test-and-repair inspection facilities (hereinafter referred to as PIFs) that perform motor vehicle emission and safety inspections on behalf of the State. Although this hybrid design allows for motorist choice concerning where to have a vehicle inspected, (and, if necessary, reinspected,) it does make software upgrades and programmatic changes more complicated.

Furthermore, there are currently five different analyzer systems being used by PIFs, each of which requires system-specific upgrades in order to include OBD inspections. In addition, all central inspection facility equipment/analyzer systems must also be upgraded to accommodate OBD inspections. All of these upgrades must conform with State specifications and pass stringent acceptance testing protocols before they can be installed in the testing facilities. The Department is currently finalizing its specifications for OBD inspection equipment and software. However, given the State's previous experience coordinating system upgrades with multiple equipment vendors, it is unrealistic to expect that New Jersey will be able to successfully test and upgrade all analyzer systems to administer OBD inspections by the January 2002 deadline. Accordingly, the State is requesting from the EPA a one-year (12 month) extension of the start date to January 1, 2003. The State is submitting this request and the supporting "good cause" justification as part of the proposed SIP revision that reflects this proposal.

In the meantime, the State will move forward with the integration of OBD inspections into the enhanced I/M program. Prior to January 1, 2003, model year 1996 and newer OBD-testable vehicles may be subjected to an OBD inspection in those inspection facilities (either PIF or CIF) that have been retrofitted to include

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OBD inspection capabilities. However, these early OBD inspections will only be advisory in nature and all OBD-inspected vehicles will also receive a tailpipe emissions test as the official exhaust emissions test upon which the pass/fail determination would be based. The State's goal is to fully implement OBD inspections on January 1, 2003.

Even with this one-year extension to January 1, 2003, for mandatory OBD inspections, however, the Department anticipates that it could take some additional time before performing OBD inspections at all private and central inspection facilities is practicable. As explained above, integrating OBD inspections into the current enhanced I/M program is a complex and major undertaking, involving hardware and software upgrades, inspector and repair industry training and customer education efforts. New Jersey's past experience with such major changes to its inspection and maintenance program underscores the need to proceed carefully to protect the integrity of the program. In order to avoid major disruption to the State's enhanced I/M program, therefore, the Department has determined to propose that, during the phase-in of OBD inspections, OBD-equipped vehicles that are presented for inspection at a facility where OBD inspections are not yet practicable would receive the otherwise appropriate exhaust emission test, as provided for at N.J.A.C. 7:27-15.5(g).

Phase-In of Mandatory OBD Inspections: In addition, the Department is proposing, as the EPA's amended enhanced I/M program rules allow, to phase-in the OBD inspection requirements by deferring, during the phase-in, the repair requirement for a motor vehicle that fails an OBD inspection but passes a tailpipe test given as a "second chance" to pass the enhanced I/M program inspection. During phase-in, beginning on or after January 1, 2003, all eligible OBD-equipped

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vehicles (model year 1996 and newer) would, as part of the initial inspection, first be subject to an OBD inspection (if practicable at the inspection facility). A vehicle that fails to pass the OBD inspection or is deemed "not ready" for an OBD inspection would also be given a tailpipe exhaust test as a "second chance test." (A vehicle would be deemed "not ready" if an OBD scan indicates that it does not meet the EPA's criteria for "readiness"; that is, the vehicle's OBD system must indicate that a critical number of supported monitors have been set.) The "second chance test" given would be the exhaust test the vehicle would have been given before OBD inspections were added to the enhanced I/M program. For example, if a vehicle would have received an ASM5015 test under the current enhanced I/M program rules, this would be the "second chance test" given to the vehicle if it failed to pass or was "not ready" for an OBD inspection. In this way, the State would continue to use the enhanced tailpipe tests which it has successfully employed to date in the enhanced I/M program.

A vehicle that passes the "second chance test" would be considered to have passed the exhaust emissions/OBD portion of the overall inspection, but the motorist would be advised that the vehicle had failed an OBD inspection and should be repaired. A vehicle that fails the "second chance test" would have to be repaired to meet the exhaust emission test standards established for that test, and would be reinspected using this same exhaust emission test. The State would work with New Jersey's certified repair technicians to encourage, through a public outreach campaign, the voluntary repair of any OBD-related problems in conjunction with the required repair of any non-OBD-related problems identified by the "second chance test." It should also be noted that in order for a vehicle to pass the overall emissions inspection, it would still be required to pass a fuel cap leak inspection and an

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emission control apparatus compliance examination (anti-tampering inspection), in addition to passing either the OBD inspection or the subsequent second-chance tailpipe inspection.

Adjustment and Clarification of Standards for the ASM5015 Exhaust Emission Test:

Currently, the Department's rule at N.J.A.C. 7:27-15.6(b)3, Table 3 provides for the use of "initial" ASM5015 exhaust emission test standards through December 31, 2001, and for the implementation of "final" ASM5015 exhaust emission test standards on January 1, 2002, for gasoline-fueled motor vehicles, model years 1981 and newer. (More precisely, Table 3 sets forth reference numbers directing the reader to the applicable emissions standards set forth at N.J.A.C. 7:27-15.6(b)4, Table 5.) These standards were developed by the EPA and made available to states implementing enhanced I/M programs in a 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.

The Department is proposing to now repeal these "final" ASM5015 standards so that they do not go into effect in 2002. The Department's decision not to implement these "final" standards is based in part on an indication from the EPA that implementation of these "final" standards could result in unacceptably high rates of false failures; that is, an unacceptably high number of vehicles would fail the test even though they meet the applicable federal emissions certification standards. The Department concurs in this assessment, especially in the case of older vehicles. The EPA's position on the implementation of ASM5015 "final" standards was further clarified in a letter dated April 12, 2001, from Margo Tsirigotis Oge, Director of the

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EPA's Office of Transportation and Air Quality to Betty L. Serian, Deputy Secretary of the Safety Administration for the Pennsylvania Department of Transportation. In that letter, Director Oge strongly advised Pennsylvania to not implement the existing ASM "final" standards until the EPA had completed its research regarding an alternative set of ASM "final" standards and had established guidance regarding state implementation of the ASM "final" standards. This letter provides clear guidance to states, such as New Jersey, that include the ASM5015 exhaust emission test as part of their enhanced I/M program on how to address implementation of the existing "final" standards. Accordingly, the Department is proposing to amend its enhanced I/M program rules so that the existing "final" ASM5015 standards do not replace the "initial" ASM5015 standards in 2002.

However, the Department recognizes that it would be advisable to replace certain of the ASM5015 standards now in effect with new, "interim" standards, effective January 1, 2003, that would be more appropriate to the vehicles to which they would apply. Specifically, the Department is proposing such new "interim" standards for light-duty gasoline-fueled trucks (LDGTs) that were certified to meet Federal Tier 1 standards (referred to as model year 1994 and newer Tier 1 LDGT1s and 2s) because the vehicle categories used for the current "initial" standards do not match those used for the "final" standards set forth at Table 3. For the "initial" standards table, the EPA had divided both LDGT1 and LDGT2 Tier 1 vehicles into two weight categories, and, for each vehicle type, had developed a different standard for each weight category. That is, model year 1994 and newer Tier 1 LDGT1s are divided into those LDGT1s that are lighter or heavier than 3750 pounds loaded vehicle weight (LVW), and 1994 and newer Tier 1 LDGT2s are divided into those LDGT2s that are lighter or heavier than 5750 pounds LVW. The EPA,

however, did not carry forward this weight differentiation in the table it developed for the “final” standards for Tier 1 LDGTs; standards applicable to undifferentiated categories are more closely aligned with the certification values of the federal test procedure (FTP) used to determine the compliance of new motor vehicles with federal emission standards. In order to maintain consistency with these undifferentiated categories for the “final” standards, the Department developed one set of “interim” standards each for model year 1994 and newer Tier 1 LDGT1s and LDGT2s, without differentiating between the lighter and heavier vehicles within each vehicle category. In establishing the proposed “interim” standards, the Department looked to the EPA’s “final” standards table for guidance, because they are closely aligned with the FTP certification levels. This alignment of the standards with the FTP is important in ensuring that the enhanced I/M tailpipe tests do not fail vehicles that comply with the FTP (resulting in “false failures” or “errors of commission”).

In determining the “interim” standard, the Department considered the appropriateness of the “initial” standard to the entire, undifferentiated category. The Department was concerned that the “initial” standard for the lighter vehicles might be too stringent for the heavier vehicles, and the “initial” standard for the heavier vehicles might represent a stringency backslide for the lighter vehicles. The Department, however, determined that model year 1994 and newer Tier 1 LDGT1s and LDGT2s should be able to meet more stringent standards than the current “initial” standards, and that these more stringent standards would result in greater emission reductions for pollutants (HC and NO_x) critical to the State’s efforts to meet the NAAQS for ozone, without resulting in an unreasonable increase in the failure rate for these vehicles. They also correlate more closely, for those vehicles model year 1996 and newer, with OBD inspection results. These more stringent standards

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also support the State's efforts regarding energy conservation and global climate change. Carbon dioxide (CO₂) emissions from the combustion of fossil fuels are a primary factor contributing to global climate change. As such, strategies that will improve fuel efficiency resulting in a decrease in CO₂ emissions will be beneficial, not only for energy security concerns, but by reducing the emissions of CO₂ into the atmosphere.

The Department is proposing that these "interim" standards go into effect on January 1, 2003, concurrent with the implementation of the OBD inspection portion of the State's enhanced I/M program. The vehicles affected by the "interim" standards that the Department is proposing would initially represent about 10 to 20 percent of the current vehicle population, but are expected to represent a greater percentage of the fleet in future years.

The Department is proposing to continue, unchanged, the current "initial" standards for all light-duty gasoline vehicles (LDGVs) and use these standards as replacements for the "final" standards, effective January 1, 2003. It should be noted that model year 1994 and newer Tier 1 LDGVs are already subject to the most stringent (that is, "final") ASM5015 standards.

In deciding to replace the "final" ASM standards with continuing "initial" and new "interim" standards, the Department has not, however, foreclosed the possibility that it might, at some future date, implement new "final" standards for those vehicles subject to the ASM5015 exhaust emission test. To that end, New Jersey, as well as other states utilizing ASM exhaust emission tests in their inspection programs, has been communicating with the EPA regarding the finalization and release of the new set of ASM "final" standards referenced in Director Oge's letter to Pennsylvania. The

EPA has indicated that it is nearing finalization of these new standards.

Removal of References to the Evaporative Pressure and Purge Tests:

Currently, the Department's enhanced I/M program rules refer to two evaporative emission control tests, known as the evaporative purge and the evaporative pressure tests. The first of these, the evaporative purge test, determines if a vehicle's evaporative control system is properly disposing of, or "purging," VOC emissions from the vehicle's evaporative storage canister. The Department had determined in the initial planning stages of the enhanced I/M program design to delay implementation of an evaporative purge test based on findings by the EPA that the original procedures developed for purge testing were impractical for centralized testing environments. Accordingly, the Department had saved a place in its rules for these provisions by reserving them, and made a commitment that, when and if appropriate test procedures were developed for use by the states, the Department would propose to modify its rules to include these procedures and would implement such a purge test. Although the EPA had resolved to develop alternative procedures which would allow for purge testing in centralized environments, it has not as yet finalized any such new purge testing procedures. Furthermore, the latest version of the EPA's mobile model, MOBILE6, (which states must use, when finalized by the EPA, to quantify the emission reduction benefits of the enhanced I/M program as well as other mobile source control strategies) no longer provides credit for the implementation of purge testing. By eliminating the purge test from the list of enhanced I/M program tests for which states can claim credit, the EPA appears to be implying that it is no longer pursuing the development of an alternative purge test for implementation in an enhanced I/M program. Finally, as discussed below, the OBD system on MY 1996 and newer vehicles functions in

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a way that would achieve the emission reduction benefits of both evaporative purge and pressure testing when motorists make the repairs indicated by their vehicles' OBD systems. For these reasons, the Department is now proposing to remove all reserved provisions and related references to an evaporative purge test.

The second evaporative test referenced by the Department's rules at N.J.A.C. 7:27-15.5(f)4 is the pressure test. This test is designed to pressurize the entire fuel system and then check for leaks in the system by monitoring the pressure decay over time. Although the Department included procedures for the performance of this test in its enhanced I/M program rules, the State decided to delay implementation of this portion of its enhanced I/M program due to initial start-up problems experienced upon implementation of the program.

After these initial start-up problems were corrected, the State considered the addition of an evaporative pressure test to the overall enhanced I/M program. By this time, however, the State was also considering options for implementation of OBD inspections on applicable 1996 and newer model year vehicles. An OBD system is designed by the automobile manufacturer to monitor a number of the vehicle's emission-related components and systems, including the evaporative system, and to alert the driver and/or inspector when there is a malfunction. For model year 1996 and newer motor vehicles, therefore, the evaporative check portion of an OBD inspection substantially duplicates the function and benefits of the evaporative pressure and purge tests, at least to the extent that the motorist makes the repairs indicated by the OBD system. That is, the OBD system notifies the motorist of a system failure or malfunction requiring repair. While this is not the case for the older, non-OBD-equipped vehicles, those vehicles represent an ever-decreasing portion of the fleet and thus an ever-diminishing emission reduction

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potential. In consideration of the above, the State determined that it was no longer advisable to integrate the evaporative pressure test into its enhanced I/M program, because the resources needed to implement this component would not yield a sufficient benefit to support such a modification to the program. Thus, the Department is now proposing to modify its rules to remove this test from the enhanced I/M program. The State will, however, retain the fuel cap leak test, which is currently administered as part of the State's enhanced I/M program, for those motor vehicles originally equipped with a sealed fuel filler cap. The EPA has determined that the fuel cap leak inspection accounts for 40 percent of the full evaporative pressure test benefit. (See 40 C.F.R. 52, 62 Fed. Reg. 26402 (May 14, 1997). Therefore, the Department has determined that the resources needed to implement this component are small as compared to the emissions benefits derived therefrom.

School Bus Exemption:

The Department is proposing to exempt from ASM5015 testing those motor vehicles that are registered as school buses and subject to inspection by the DMV's School Bus Inspection Unit. This is consistent with recent revisions to the DMV's enhanced I/M rules which are part of a proposed revision to the State's enhanced I/M SIP. As part of its newly adopted regulatory amendments at N.J.A.C. 13:20-7.2 (Inspection of motor vehicles; test frequency; exempt vehicles), the DMV, with the concurrence of the Department, added to the list of vehicles exempt from the inspection requirements of the DMV's enhanced I/M program rules at N.J.A.C. 13:20 any gasoline-fueled vehicle registered as a school bus and subject to inspection by the DMV's School Bus Inspection Unit in accordance with N.J.S.A. 39:3B-18 et seq. (33 N.J.R. 3651(a)). This would include certain light-duty gasoline-fueled vehicles,

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such as vans and sport utility vehicles, that are registered as school buses and used by schools to transport students. Prior to this amendment by the DMV, these particular vehicles, unlike their heavy-duty school bus counterparts, were required, under the DMV's and the Department's enhanced I/M program rules, to be inspected at a PIF or a CIF, where (if they were model year 1981 or newer and not otherwise exempt from ASM testing) they would have been subjected to the dynamometer-based ASM5015 exhaust emissions test biennially, that is, once every two years. The DMV's new rules provide, instead, that inspection of these school buses will be pursuant to the provisions of the DMV's school bus rules at N.J.A.C. 13:20-30. Accordingly, like all other school buses, they will be inspected on site, twice a year, and subjected to the same safety inspections that all other vehicles registered as school buses must pass. As these on-site inspections do not include dynamometer testing, these school buses will be tested using the 2,500 RPM test, which is the enhanced tailpipe test that serves as an alternative to the ASM5015 in the enhanced I/M program. The Department's recent proposed SIP revision reflecting this rulemaking by the DMV explains the implications of this exemption to New Jersey's enhanced I/M SIP. In brief, while the use of the 2,500 RPM test will not yield NO_x benefits, there are other VOC reduction benefits to be gained by performing this test four times as often as it would have otherwise been performed had these vehicles been subjected to testing under the enhanced I/M program. (See "The State of New Jersey Department of Environmental Protection, Enhanced Inspection and Maintenance (I/M) Program for the State of New Jersey, Amendments to the New Jersey Division of Motor Vehicles' Enhanced Inspection and Maintenance (I/M) Rules, Proposed SIP Revision", June 9, 2001.) This document can also be viewed at the Department's website at <http://www.state.nj.us/dep/baqp/sip/dmvsip.htm>.

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As a follow up to the amendments to its enhanced I/M program rules regarding school buses, the DMV has also proposed amendments to its school bus rules at N.J.A.C. 13:20-30.13(b), which, if adopted, would reflect the requirement that all school buses, including those specifically exempted from the enhanced I/M inspection requirements, be inspected for emissions biannually (that is, twice a year), not with an ASM5015 test, but using a 2,500 RPM test (or, in the case of heavier vehicles, an idle test). Publication of this proposal is scheduled for January 22, 2002.

A more detailed explanation of the proposed changes to N.J.A.C. 7:27-15 and N.J.A.C. 7:27B-5 follows.

7:27-15.1 Definitions

The Department is proposing to amend the term "motor vehicle emission testing equipment" by deleting the word "emission" to avoid any implication that the term does not include OBD inspection equipment as well as emission testing equipment. The Department is also proposing to amend the definition of this term to remove references to equipment used in the evaporative pressure and purge tests that the Department is proposing to remove from the enhanced I/M program and to add a reference to on-board diagnostic scanners and analyzers and fuel cap leak testers. Likewise, the reference to "motor vehicle emission testing equipment" in the definition is proposed to read "motor vehicle testing equipment." In addition, the Department is proposing to change a reference to N.J.A.C. 7:27B to N.J.A.C. 7:27B-5, for greater clarity.

The Department is also proposing to add a definition of the term "second chance test" to describe the test that would be given an OBD-equipped vehicle which fails or is deemed "not ready" for an OBD inspection. The Department proposes using this new term at N.J.A.C. 7:27-15.5(g)3.iv. and v. and N.J.A.C. 7:27-15.5(g)iv. and v.

7:27-15.5 Motor vehicle inspections

The Department is proposing to amend N.J.A.C. 7:27-15.5(b), which describes the frequency of inspections, to reflect that motor vehicles subject to the school bus inspection program will be required to receive an initial inspection twice a year. This

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is a different inspection frequency schedule than the biennial schedule established for all other vehicles subject to inspections and reflected at N.J.A.C. 7:27-15.5(b).

The Department is proposing to amend N.J.A.C. 7:27-15.5(c), which describes where inspections will be conducted, to reflect that a motor vehicle that is subject to the school bus inspection program will be inspected at the premise or place of business of the vehicle's operator.

The Department is proposing to amend N.J.A.C. 7:27-15.5(d)1 to refer to an "inspection or reinspection" instead of an "emission inspection" to clarify that the inspection whose requirements are set forth at N.J.A.C. 7:27-15.5(f) is not limited to emission inspections, but encompasses OBD inspections and reinspections conducted after failure of an initial inspection.

The Department is proposing to remove the phrase "other than proper tightening of the gas cap" from N.J.A.C. 7:27-15.5(e)1, since this exception to allow the tightening of the vehicle's gas cap was only relevant to the evaporative pressure and purge tests, which are not being conducted as part of the enhanced I/M program and references to which this proposed rulemaking would remove.

The Department is proposing to amend N.J.A.C. 7:27-15.5(f) as follows:

- add a reference to OBD inspections at N.J.A.C. 7:27-15.5(f)2;
- change a reference in N.J.A.C. 7:27-15.5(f)3 from N.J.A.C. 7:27B-5.7 to 5.6, and a reference in N.J.A.C. 7:27-15.5(f)6 from N.J.A.C. 7:27B-5.11 to 5.8 to reflect the recodification of N.J.A.C. 7:27B-5.7 and 5.11, respectively;

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- repeal N.J.A.C. 7:27-15.5(f)4 and 5, which refer to the evaporative pressure test and reserve a place for a reference to the evaporative purge test, respectively. Since the Department is proposing to remove the pressure and purge tests from the enhanced I/M program, it is also proposing to remove all references in this subchapter and in N.J.A.C. 7:27B-5 to these tests;

- recodify N.J.A.C. 7:27-15.5(f)6 at N.J.A.C. 7:27-15.5(f)4 and N.J.A.C. 7:27-15.5(f)8 at N.J.A.C. 7:27-15.5(f)5;

- remove language referring to the evaporative pressure test from N.J.A.C. 7:27-15.5(f)6;

- substitute the term "motor vehicle testing equipment" for "motor vehicle emission testing equipment" as that term now encompasses equipment, such as the OBD inspection equipment, that does not test emissions as such; and

- delete N.J.A.C. 7:27-15.5(f)7, since the proposal would relocate the reference to OBD inspections to N.J.A.C. 7:27-15.5(f)2.

At N.J.A.C. 7:27-15.5(g), the Department is proposing to add a reference to OBD inspections, to clarify that the choice of test covered by this subsection includes the OBD inspection as well as the various exhaust emission tests. In addition, for greater clarity, the Department proposes to restructure this subsection so that each paragraph refers to a different inspection or exhaust test: N.J.A.C. 7:27-15.5(g)1 would refer to the idle test; N.J.A.C. 7:27-15.5(g)2 would refer to the 2,500 RPM test; N.J.A.C. 7:27-15.5(g)3 would refer to the ASM5015 test; and N.J.A.C. 7:27-15.5(g)4 would refer to the OBD inspection.

At N.J.A.C. 7:27-15.5(g)1,2, 3, and 4, the Department proposes new language

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that would now reflect that while all eligible vehicles would be subjected to idle, 2500 RPM or ASM5015 testing through December 31, 2002, after that date these tailpipe emissions tests would only be selected for OBD-equipped vehicles 1) where an OBD inspection was not practicable at the inspection facility where the vehicle was presented for inspection, 2) as a "second chance test" where the vehicle had failed or was deemed "not ready" for an OBD inspection or 3) as a retest during the reinspection of a vehicle that had failed the "second chance test." Otherwise, on and after January 1, 2003, OBD-equipped vehicles will be subjected to an OBD inspection, pursuant to the new provisions that the Department is proposing at N.J.A.C. 7:27-15.5(g)4. The proposal would also provide at N.J.A.C. 7:27-15.5(g)2.v. that the 2,500 RPM test would be conducted where a gasoline-fueled motor vehicle is subject to inspection as part of the school bus inspection program (and would otherwise would have received either a 2,500 RPM test or an ASM5015 test).

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The following table summarizes the provisions of N.J.A.C. 7:27-15.5(g) to show which vehicles would receive which tests as the initial, second-chance or reinspection tests, and would be provided as a reference at a new Appendix to N.J.A.C. 7:27-15:

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	all others
OBD (for initial only)	-	-	all (only after 1/1/2003)

***NOTE:** Beginning on January 1, 2003, vehicles eligible for OBD inspection may receive either an OBD inspection or the appropriate tailpipe emission test. Furthermore, a vehicle that fails an OBD inspection would be given the tailpipe emission test it would have received before January 1, 2003, as a "second chance test."

The Department is proposing minor changes to N.J.A.C. 7:27-15.5(h) to reflect that the time within which a vehicle must be reinspected is not 30 days, as the rule currently provides, but rather can range, depending upon the reasons for the failure and the timing of the initial inspection, from 48 hours to up to 61 days, as provided at N.J.A.C. 13:20-7.5, 7.6(a) or 43.14(g). The other proposed change is to N.J.A.C. 7:27-15.5(h)1., to add a reference to reinspection, as well as inspection, requirements to avoid any confusion concerning the tests to be used on reinspection. For example, while an OBD inspection may be a requirement of inspection for an OBD-equipped vehicle, it would not be a requirement for the reinspection of that vehicle, which, if it had failed or been deemed not ready for an OBD inspection and

also failed the “second chance test,” would be tested with the same tailpipe test (ASM5015 or 2,500 RPM) that constituted the appropriate “second chance test.”

At N.J.A.C. 7:27-15.5(i), where the tests and inspections that may be conducted during an on-road inspection are listed, the Department is proposing to make the following changes:

- change the reference in N.J.A.C. 7:27-15.5(i)2 from “motor vehicle emission testing equipment” to “motor vehicle testing equipment” to consistently use the more inclusive term in this subchapter;

- delete N.J.A.C. 7:27-15.5(i)4, to reflect the removal of the evaporative pressure test from the enhanced I/M program;

- add new paragraphs N.J.A.C. 7:27-15.5(i)3, 4, 6 and 7 to reflect the inclusion of the 2,500 RPM test, the ASM5015 test, the fuel cap leak test and the OBD inspection, respectively, in the list of tests and inspections that may be conducted during an on-road inspection;

- recodify N.J.A.C. 7:27-15.5(i)3 and N.J.A.C. 7:27-15.5(i)5 as N.J.A.C. 7:27-15.5(i)5 and 8, respectively; and

- change a reference in the new N.J.A.C. 7:27-15.5(i)5 to N.J.A.C. 7:27B-5.7 to N.J.A.C. 7:27B-5.6, to reflect proposed changes in subchapter 27B-5.

Finally, the Department is proposing to delete N.J.A.C. 7:27-15.5(l). These provisions serve only to advise the reader of the DMV’s program evaluation test, which is not used in determining whether a motor vehicle has passed or failed an inspection under this subchapter.

7:27-15.6 Motor vehicle inspection standards

At N.J.A.C. 7:27-15.6(b), Table 3 currently provides a series of “initial” standards for the ASM5015 test, effective through December 31, 2001, for light-duty gasoline-fueled motor vehicles (LDGVs), and light-duty gasoline-fueled trucks (LDGT1s and LDGT2s). It also reserves such “initial” standards for LDGVs and LDGTs powered by a fuel other than gasoline. The “initial” standards subtables are followed in the current rule by a series of “final” standards subtables for the ASM5015 test, effective January 1, 2002, for LDGVs and LDGTs. Table 3 also reserves such “final” standards for LDGVs and LDGTs powered by a fuel other than gasoline.

The Department is proposing to amend Table 3 to reflect the continuation of the “initial” standards for the ASM5015 test through December 31, 2002, for all LDGVs and LDGTs by changing the end date for these standards from December 31, 2001 to December 31, 2002. The proposed amendments also reflect that the ASM5015 standards for LDGVs and LDGTs powered by a fuel other than gasoline would continue to be reserved and the distinction between “initial” and “final” standards for these vehicles would be removed, as these standards are still not available.

The Department is also proposing to amend the effective date of those portions of Table 3 which currently set forth the “final” ASM5015 standards by changing that effective date from January 1, 2002, to January 1, 2003. In addition, the Department proposes to substitute the “initial” standards for these “final” standards for all vehicles other than the 1994 and newer Tier 1 LDGT1s and LDGT2s. The Department proposes to replace the “final” standards for the LDGT1s

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and LDGT2s with “interim” standards, which, as is discussed above, are in some cases the same as the “initial” or the “final” standards currently promulgated.

The Department is also proposing to repeal N.J.A.C. 7:27-15.6(b) 4 and Table 4, Exhaust Emission Standards for the IM240 Test, to reflect the fact that the IM240 test is not a required test in the enhanced I/M program. The enhanced I/M program rules have contained provisions relating to the IM240 because private inspection facilities had the option of using this test in the enhanced I/M program and because the State uses this test procedure, not as the basis of passing or failing vehicles, but to collect data on the effectiveness of the program. This function is described more fully in the current rules at N.J.A.C. 7:27-15.5(l), which the Department is also proposing to delete, as described below. Accordingly, the Department also proposes to renumber Table 5 as Table 4.

The Department is proposing to correct a reference in N.J.A.C. 7:27-15.6(c) from “N.J.A.C. 7:27B-5.7, 5.8, 5.9, 5.10 and 5.11” to “N.J.A.C. 7:27B-5.6,” which is the correct citation for the emission control apparatus inspection test procedure.

The Department is also proposing a number of non-substantive changes to N.J.A.C. 7:27-15.6, as follows:

- the rule text at N.J.A.C. 7:27-15.6(b)3 would be moved so that Tables 1, 2 and 3 would follow immediately after N.J.A.C. 7:27-15.6(b)1, 2 and 3. Table 5, which would be renumbered as Table 4 and which is used only in connection with Table 3, would follow Table 3;

- at N.J.A.C. 7:27-15.6(d), the Department is proposing to simplify the text so that a reference in (d) to “N.J.A.C. 7:27B-5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 5.10 and

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5.11" would be rewritten as "N.J.A.C. 7:27B-5.3 through 5.8, inclusive";

- at N.J.A.C. 7:27-15.6(e) and (f), the Department is proposing to change a reference to "Tables 1, 2, 3 and 4" to "Tables 1, 2 and 3" to reflect the deletion of Table 4. Also at N.J.A.C. 7:27-15.6(f), the Department is proposing to delete a reference to the evaporative pressure and purge tests.

Appendix to N.J.A.C. 7:27-15

As discussed above, the Department is proposing to add an appendix to N.J.A.C. 7:27-15 that would contain a table summarizing the provisions of N.J.A.C. 7:27-15.5(g) to show which vehicles would receive which tests as the initial, second-chance or reinspection tests in a easy to follow graphical representation.

7:27B-5.1 Definitions

As it is doing by the proposed amendments to the definitions section of N.J.A.C. 7:27-15, the Department is proposing to amend the term "motor vehicle emission testing equipment" by deleting the word "emission" to avoid any implication that the term does not include OBD inspection equipment as well as emission testing equipment. The Department is also proposing to amend the definition of this term to remove references to equipment used in the evaporative pressure and purge tests that the Department is proposing to remove from the enhanced I/M program and to add a reference to on-board diagnostic scanners and analyzers and fuel cap leak testers. Likewise, the reference to "motor vehicle emission testing equipment" in the definition is proposed to read "motor vehicle testing equipment." In addition, the Department is proposing to change a reference to N.J.A.C. 7:27B to N.J.A.C. 7:27B-

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5, for greater clarity. The Department is also proposing to define the term “readiness.” This term is used in the proposed new rule at N.J.A.C. 7:27B-5.7(a)7.

Finally, the Department is proposing to define a number of terms and acronyms that are used in the proposed Appendix 8 to N.J.A.C. 7:27B-5. These are as follows:

“Data link connector” or “DLC”; “diagnostic trouble code” or “DTC”; “Key On Engine Off” or “KOEO”; “Key On Engine Running” or “KOER”; “Malfunction Indicator Light” or “MIL”; “OBDII VIN”; “On-Board Diagnostics” or “OBD”; “PCM ID”; “PID count”; “readiness monitors”; and “VIR.”

7:27B-5.2 General instructions for all tests

At N.J.A.C. 7:27B-5.2(a), the Department is proposing to simplify the text so that a reference to “N.J.A.C. 7:27B-5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 5.10 and 5.11” would be rewritten as “N.J.A.C. 7:27B-5.3 through 5.8, inclusive.”

At N.J.A.C. 7:27B-5.2(b), the Department is proposing a stylistic change in wording, as well as a change in the regulatory reference from N.J.A.C. 7:27B-5.12 to N.J.A.C. 7:27B-5.9 reflecting the recodification of that subsection.

At N.J.A.C. 7:27B-5.2(c), the Department is proposing to substitute the term “motor vehicle testing equipment” for “motor vehicle emission testing equipment” by deleting the word “emission” so that this term also applies to equipment used in OBD inspections. The Department also proposes to amend N.J.A.C. 7:27B-5.2(c)1 to replace a general reference to specifications with a specific reference to the Department’s requirements at N.J.A.C. 7:27B-5.9.

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7:27B-5.6 Procedures for the IM240 test

The Department is proposing to repeal this section, since the IM240 emissions test is not a required test in New Jersey's enhanced I/M program; that is, this test is performed only to evaluate the effectiveness of the program and the results do not form the basis for passing or failing a vehicle.

7:27B-[5.7] 5.6 Emission control apparatus examination procedure

The Department is proposing to recodify this section as N.J.A.C. 7:27B-5.6 to reflect the proposed repeal of N.J.A.C. 7:27B-5.6.

7:27B-5.8 Procedures for the evaporative pressure test

The Department is proposing to delete this section in its entirety, as it is removing the requirement for this test and any references thereto from the enhanced I/M program rules.

7:27B-5.9 (Reserved)

The Department is proposing to delete this section, which had been reserved for the procedures to be used in conducting the evaporative purge test.

7:27B-[5.10] 5.7 Procedures for the on-board diagnostics inspection

The Department is proposing to recodify this section as N.J.A.C. 7:27B-5.7 to reflect the proposed repeal of N.J.A.C. 7:27B-5.6. The Department is also proposing to replace the current reference to the EPA's OBD inspection procedures set forth at 40 C.F.R. 85.2222 with a description of how the inspection is conducted, including

an abbreviated explanation of how the OBD software actually responds to the information being downloaded from the motor vehicle's on-board computer. As the Department proposes to explain in N.J.A.C. 7:27B-5.7(b), the on-board diagnostics inspection procedure is largely a process whereby the motor vehicle testing equipment and the motor vehicle on-board computer interface and exchange information. As such, it would be neither meaningful nor helpful to the reader to include explicit technical details in the description of the OBD inspection procedure description. Instead, the Department is proposing a brief, simplified description of the OBD inspection procedure at N.J.A.C. 7:27B-5.7. A more detailed version, reflecting the logic flow of pass and fail determinations within the procedure, is proposed at Appendix 8 to N.J.A.C. 7:27B. Additional technical details are set forth in the Department's OBD equipment specifications, which can be obtained in an electronic format by contacting the Bureau of Transportation Control at (609) 530-4035.

7:27B-[5.11] 5.8 Procedures for the fuel cap leak test

The Department is proposing to recodify this section as N.J.A.C. 7:27B-5.8 to reflect the proposed repeal of N.J.A.C. 7:27B-5.6, 5.8, and 5.9. In addition, recodification of N.J.A.C. 7:27B-5.5(f)6 to N.J.A.C. 7:27B-5.5(f)4 requires a correction to the reference to that paragraph in the provisions that would be recodified as N.J.A.C. 7:27B-5.8(a). The Department is also proposing, in the provisions that would be recodified as N.J.A.C. 7:27B-5.8(a)2, to update the reference to the EPA technical guidance document entitled "IM240 & Evap Technical Guidance" to EPA420-R-00-007. This updated guidance document, dated April 2000, is not a substantive change in that it does not contain changes to the description of the fuel cap leak test. Finally, the Department is removing text from

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the provisions proposed for recodification at N.J.A.C. 7:27B-5.8(a)2 that indicates that the Department has filed a copy of this EPA technical guidance document with the Office of Administrative Law as there is no longer any such filing requirement.

7:27B-[5.12] 5.9 Specifications for motor vehicle testing equipment for use in the New Jersey Enhanced Inspection and Maintenance Program

The Department is proposing to recodify this section as N.J.A.C. 7:27B-5.9 to reflect the proposed repeal of N.J.A.C. 7:27B-5.6, 5.8, and 5.9 and to delete the word “emissions” from the title of the section. In addition, the Department is proposing the following changes:

- to remove text from the provisions proposed for recodification at N.J.A.C. 7:27B-5.9(b)2 and (c)2 that indicates that the Department has filed a copy of the referenced EPA technical guidance documents with the Office of Administrative Law as there is no longer any such filing requirement;

- to delete the provisions at N.J.A.C. 7:27B-5.12(c) as they relate to the equipment to be used in performing the IM240 test. As mentioned above, the Department is proposing to delete all references to this test because it is not used to determine whether a motor vehicle passes or fails an enhanced I/M inspection;

- to recodify the provisions of N.J.A.C. 7:27B-5.12(d) and (e) as N.J.A.C. 7:27B-5.9(c) and (d), respectively, to reflect the deletion of N.J.A.C. 7:27B-5.12(c); and

- to remove the reference at N.J.A.C. 7:27B-5.12(d) to the evaporative pressure test consistent with the proposed removal of all references to this test in the enhanced I/M program rules, discussed above.

Appendix to N.J.A.C. 7:27B

As discussed above, the Department is proposing to add an appendix to N.J.A.C. 7:27B that would contain a flow-chart reflecting a more detailed version of the OBD inspection, including more of the process whereby the motor vehicle testing equipment and the motor vehicle on-board computer interface and exchange information and reflecting the logic flow of pass and fail determinations within the procedure. Additional technical details are set forth in the Department's OBD equipment specifications, which can be obtained in an electronic format by contacting the Bureau of Transportation Control at (609) 530-4035.

Social Impact

The Department is proposing these amendments, repeals and new rules to update and modify the design of the State's enhanced I/M program. By ensuring that the State's enhanced I/M program is current and remains viable by applying the best available information the State has on implementing and improving enhanced I/M programs, this proposed rulemaking would have a positive social impact. This is because the enhanced I/M program, generally, will provide New Jersey's residents with cleaner air and thus a healthier environment, while improving the overall efficiency of the enhanced I/M program, and thus reducing the financial and time costs borne by motorists.

The enhanced I/M program generally is designed to aid the State in attaining and maintaining the NAAQS for ozone and carbon monoxide by reducing the in-use emissions of air contaminants from gasoline-fueled motor vehicles. Motor vehicle emissions contain volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) which, in the presence of sunlight, react with other compounds in the ambient air to

form ozone and other oxidants harmful to public health. Motor vehicles are also significant contributors of carbon monoxide.

Ozone (O₃) continues to be New Jersey's most pervasive air quality problem. Although the ozone found in the earth's upper atmosphere (stratosphere) forms a layer that protects us from the sun's ultraviolet radiation, the ozone formed near the earth's surface (troposphere), hereafter referred to as ground-level ozone, is breathed by or comes in contact with people, animals, crops and other vegetation, and can cause a variety of health and other effects.

As it forms, ground-level ozone and its precursors, especially NO_x, can be transported by the wind, resulting in high ozone levels in areas downwind of the original pollution source. The combination of higher summer temperatures, sunlight, local emissions, and atmospheric transport conditions contribute to a summertime elevated peak in ozone concentrations. Unlike primary pollutants such as sulfur dioxide and lead, which are emitted directly and can be controlled at their source, ozone precursors are emitted from many different sources and from various geographic locations. This makes reducing ozone concentrations quite challenging. As such, controls on all potential precursor sources are needed to mitigate the ozone problem. In addition to gasoline-fueled motor vehicles, other primary man-made sources of these ozone precursors that are regulated by the EPA and the State include highly evaporative solvents and fuels (consumer products and gasoline) and combustion by-products (from power plants, industry, and other engines).

In its notice of proposed rulemaking, "Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone", the EPA notes that

breathing elevated levels of ground-level ozone can:

- decrease lung function, primarily in children when active outdoors;
- increase respiratory symptoms, such as coughing and chest pain upon inhalation, particularly in highly sensitive individuals;
- increase hospital admissions and emergency room visits for respiratory problems among children and adults with pre-existing respiratory diseases, such as asthma;
- cause inflammation of the lungs;
- cause possible long-term damage to the lungs; and
- promote allergic reactions. (See 62 Fed. Reg. 60317 (November 7, 1997).)

In addition to their participation in the formation of ozone, VOCs and NO_x by themselves exhibit serious human health effects. For example, some VOCs, including benzene, formaldehyde and 1,3-butadiene, are classified as Hazardous Air Pollutants (HAPs), also known as air toxics. They have been associated with the onset of cancer and other adverse health effects. As for NO_x, although nitric oxide (NO) itself is a relatively nonirritating gas, it is readily oxidized to nitrogen dioxide (NO₂), which can damage respiratory defense mechanisms, allowing bacteria to proliferate and invade the lung tissue. NO_x cause irritation to the lungs, lower resistance to respiratory infections, and contribute to the development of emphysema, bronchitis, and pneumonia. NO_x also react chemically in the air to form nitric acid, which contributes to acid rain formation.

Along with the formation of ozone, ozone precursors form fine particulates, such as nitrate and sulfate particles, which have their own associated health impacts. These particulates aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children and those with chronic lung or heart disease are the most sensitive. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Chemicals in and on particulates can also be toxic. Very fine particulates (called PM_{2.5}, for particulate matter smaller than 2.5 microns in diameter) can be inhaled deep into the lungs. By reducing the levels of ozone precursors, the enhanced I/M program indirectly reduces the formation of these fine particles in the atmosphere.

Aside from the health effects associated with ground-level ozone and its precursors, ozone interferes with the ability of various plants to produce and store nutrients. This causes the plants to become more susceptible to disease, insects, other pollutants and harsh weather. This impacts annual crop production throughout the United States, resulting in significant losses, and injures native vegetation and ecosystems. Ground-level ozone also damages certain man-made materials, such as textile fibers, dyes, and paints. (More information is available from an EPA publication entitled "An EPA Fact Sheet on the New 8-Hour Ozone and Fine (2.5 microns) Particulate Matter Health Standards," July 1997.)

Carbon monoxide is a poisonous gas at certain threshold levels. It is absorbed into the bloodstream and may have both direct and indirect effects on the cardiovascular system by interfering with the oxygen-carrying ability of the blood. Exposure to carbon monoxide aggravates angina and other aspects of coronary heart disease and decreases exercise tolerance in persons with cardiovascular

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problems. In fetuses, infants, elderly persons, and individuals with respiratory diseases, elevated levels of carbon monoxide are also a serious health risk.

According to the Department's 1996 summer emission inventory, emissions from on-road mobile sources (which includes all the gasoline-fueled motor vehicles covered by the enhanced I/M program) represent 31 percent of VOC emissions and 42 percent of NO_x emissions in New Jersey. The Department has prepared a 1996 winter emissions inventory for a five county area in Northern New Jersey that shows that on-road mobile sources contribute about 68 percent of the carbon monoxide released into New Jersey's air for that part of the State. See "The State of New Jersey Department of Environmental Protection, State Implementation Plan (SIP) Revision for the Attainment and Maintenance of the Ozone National Ambient Air Quality Standard (NAAQS), New Jersey 1996 Actual Emission Inventory and Rate of Progress (ROP) Plans for 2002, 2005 and 2007", March 31, 2001.

The proposed modification to New Jersey's enhanced I/M program design would also have a positive social impact on New Jersey motorists by phasing in the implementation of OBD inspections and by allowing those vehicles which initially fail an OBD inspection to have a "second chance test." The inspection time for a vehicle that passes the OBD inspection may also be shorter than for an inspection that included an exhaust emission tailpipe test. In addition, a motorist whose motor vehicle fails the OBD inspection but passes the "second chance test" would have the opportunity to become familiar with the new inspection process during the phase-in of mandatory OBD inspections without facing the normal repair and financial consequences of an OBD failure. This would further educate the public about how OBD systems work, and provide motorists with the opportunity to repair, on a voluntary, advisory basis, any OBD-related problems.

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The State is concerned, however, that during phase-in, providing some motorists with the results from two different emission-related inspections (OBD inspection and tailpipe test), only one of which constitutes the official inspection result, could be confusing. Furthermore, the Department is concerned about how a motorist might react when told that failing the OBD inspection during the phase-in period does not mean a motor vehicle will fail the enhanced inspection, so long as that vehicle can pass the “second chance test.” Such information might cause the motorist to take less seriously or ignore illumination of the vehicle’s OBD system Malfunction Indicator Light (MIL) in the mistaken belief that it is not necessary to address any OBD-indicated problems, so long as the vehicle passes the exhaust emissions test given as the “second chance test.” The Department hopes to mitigate this potential for confusion through a public information campaign prior to and during the start of the proposed changes to the program.

Economic Impact

These proposed amendments, repeals and new rules would have a positive economic impact insofar as they serve to further the air quality benefits of the overall enhanced I/M program. The implementation of the enhanced I/M program is projected to improve air quality and, in so doing, help to reduce the substantial costs to the State and its citizens resulting from the adverse impacts associated with air pollution. These costs include health care costs and the cost of damage to buildings, materials, crops and vegetation. In addition, by complying with federal air quality standards, the State and its citizens would avoid the significant adverse economic impact of Federal economic sanctions associated with non-compliance.

The April 6, 2001 evaluation of the State’s enhanced I/M program, prepared

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for Parsons Brinckerhoff - FG, Inc. by Sierra Research, Inc. and entitled "New Jersey NHSDA Program Evaluation" includes data from the enhanced I/M program, as it is currently implemented. This data indicates that those vehicles which fail the emissions portion of an enhanced inspection are being properly repaired and returned to compliance status. The average per vehicle repair cost for calendar year 2000 was \$160, with resulting emission reductions from such vehicles of 57 percent for hydrocarbons (HC), 45 percent for NO and 81 percent for carbon monoxide. This indicates the program's success both in encouraging motorists to have their vehicles repaired and in promoting highly cost effective repairs. In addition, the repair of these vehicles means they should now be operating at an optimum performance level, increasing fuel efficiency (thus reducing the cost to the motorist) and contributing to the State's and the Nation's energy conservation efforts.

There would be some initial cost savings to the motorist from some of the proposed amendments and repeals insofar as they remove or make more lenient certain requirements of the program for older model year vehicles. For example, by removing the requirements for the evaporative pressure and purge tests (which would primarily affect pre-1996 vehicles, which are not OBD-equipped, if and when they were implemented), the proposed amendments would allow motorists whose vehicles would have failed these tests to avoid the cost of the necessary repairs to the evaporative control system if and when these components of the enhanced I/M program were implemented. Similar repair costs would be avoided by motorists whose vehicles would have failed the more stringent "final" ASM5015 standards, if, as proposed, the Department does not implement these "final" ASM5015 standards on January 1, 2002. These repair savings to the motorist, however, may be outweighed by a resulting loss in emission reduction benefits, particularly in regard

to those emission reductions which would have resulted from the implementation of the evaporative pressure and purge tests, primarily for the non-OBD-equipped pre-1996 model year vehicles. Should this be the case, however, the Department is committed to compensating for any lost air quality benefits associated with these program modifications.

There are direct costs associated with integrating OBD inspections into the State's existing enhanced I/M program as well as with implementing the proposed new "interim" standards for LDGTs. Integration of OBD inspections into the State's existing I/M program would require an upgrade to the software currently being used at both the CIFs and PIFs. While an evaluation of the costs of these program modifications for the PIFs is not yet complete, it is expected to be in line with the cost of a typical software upgrade for PIFs, which is between \$1000 and \$2000 per PIF. In addition to the upgrade cost, there would be the additional cost of installing the software at the PIFs. Installation of the upgrade could cost between \$100 and \$200 per PIF. For the CIFs, implementation of OBD inspections should already be covered by the State's contract with Parsons Infrastructure and Technology Group (PI&TG). As such, there should be no additional cost associated with the start-up of mandatory OBD inspections.

In addition to the development costs associated with the OBD analyzer system upgrade, there would also be a cost to the State to develop the specification(s) for this upgrade, and to test submissions by equipment manufacturers to ensure compliance with the specification(s) prior to release of the upgrade for use by the CIFs and PIFs. These development and testing costs are estimated at approximately \$400,000. The State would also incur costs associated with quality assurance oversight of the expanded program, primarily in the form of additional

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auditing costs, estimated at approximately \$1.2 million.

Another indirect cost that the State would incur associated with the implementation of OBD inspections includes improvements to the data collection network to accommodate additional data storage and transmission as well as modifications to data reporting software. These modifications are expected to cost somewhere between \$200,000 and \$300,000.

The implementation of the proposed new “interim” standards, on the other hand, would not require a software upgrade. It would, however, require the distribution and installation of data tables reflecting the new standards, on all inspection equipment at both the PIFs and the CIFs. Like the service calls that would be needed for the software installation for OBD, it is estimated that these services calls could cost between \$100-\$200 per PIF. However, since PIFs would be proceeding with the OBD software upgrade and the installation of the proposed new “interim” standards table at about the same time, taking care of both of these installations with one service call would probably lessen somewhat the economic burden of the upgrades.

Finally, but most importantly, insofar as these program modifications would optimize the enhanced I/M program design, resulting in the reduction of air pollutants from motor vehicles, these modifications would also serve to ensure that the program has a substantial, economic benefit by decreasing health costs to the public. Health care costs for air pollution-related illnesses in the United States are estimated to be on the order of \$50 billion per year. In addition, the American Lung Association estimates that, nationally, 182 million people face health threats from ground-level ozone alone. By decreasing the public's exposure to ozone, VOCs,

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NO_x, CO, PM, and air toxics, these amendments, repeals, and new rules should lessen these health care costs.

Air pollutants also have a direct adverse effect on vegetation, livestock, and certain materials, such as rubber and glass. Although economic losses due to air pollution damage in these areas are difficult to quantify (since it is difficult to distinguish between natural deterioration and that which is caused by air pollutants), past estimates have indicated that losses from material damage alone have exceeded \$4 billion annually nationwide. (See Godish, Thad. Air Quality (Chelsea, Michigan: Lewis Publishers, Inc., 1991), p.207.) The enhanced I/M program, with these proposed modifications, would continue to reduce air pollutants, and should substantially reduce the adverse economic effects on vegetation, livestock, and other property.

Environmental Impact

The Department is proposing these amendments, repeals and new rules to update and modify the design of the State's enhanced I/M program. By ensuring that the State's enhanced I/M program is current and remains viable by applying the best available information the State has on implementing and improving enhanced I/M programs, this proposed rulemaking should have a positive environmental impact, in that it would further the environmental benefits of the enhanced I/M program.

However, without the benefit of the use of the MOBILE6 model, which is not yet available for official use in SIPs and transportation conformity determinations, the State cannot at this time quantify the air quality impacts of this proposal. (As mentioned above, this is the modeling tool that states will be required to use, once it is finalized by the EPA, to quantify the emission reduction benefits of the enhanced

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I/M program.) Without this tool, which would produce the definitive projection of air quality benefits, the State cannot estimate the environmental impact of the proposed modifications to the enhanced I/M program. Accordingly, the State has not revised its modeled estimates to determine the impact that these proposed regulatory changes would have on the emission reduction potential of the overall enhanced I/M program. A more detailed explanation of the Department's reasons for not revising its estimates at this time is included as part of the proposed SIP revision that reflects this proposed rulemaking and which the Department submitted to the EPA on December 31, 2001.

The impact of ground-level ozone and CO is primarily upon human health and well-being. These effects are discussed at length in the Social Impact section of this proposal. In addition to human health effects, studies have shown that increased ozone levels damage foliage. One of the earliest and most obvious manifestations of ozone impact on the environment is damage to sensitive plants. Subsequent effects include reduced plant growth and decreased crop yield. A reduction in ambient ozone concentrations would mitigate damage to foliage, fruit, vegetables and grain.

Decreased ozone levels will also result in less degradation of various man-made materials, such as rubber, plastics, dyes and paints. This degradation is caused by the oxidizing properties of ozone. However, if the photochemical production of ground-level ozone can be limited, as it would continue to be with the implementation of these proposed amendments and new rules, this degradation would be significantly reduced.

Although ozone is well-known for its damaging effects on the environment,

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NO_x can also independently cause significant environmental degradation. Oxides of nitrogen are the primary constituents involved in the deposition of toxics, commonly referred to as acid rain, into lakes and coastal waters. Acid rain damages plants and trees, and injures aquatic life by acidifying lakes and streams. The enhanced I/M program as a whole is designed to decrease emissions of NO_x into the atmosphere and benefit the environment of New Jersey, and these proposed amendments and new rules would continue to allow the enhanced I/M program to do just that.

Because VOCs and NO_x are precursors to ozone formation, efforts to attain and maintain the NAAQS for ozone have focused on reducing VOC and NO_x emissions. According to the State's 1996 summer emission inventory, mentioned above, VOC emissions in New Jersey averaged 990.92 tons per summer day with 309.01 tons attributed to emissions from all on-road mobile sources. That same inventory indicated that in 1996, NO_x emissions in New Jersey averaged 1053.68 tons per summer day with 453.82 tons per summer day attributed to emissions from all on-road mobile sources.

CO is generally a localized wintertime pollutant, elevated levels of which are related to colder temperatures and congested traffic. A draft 1996 wintertime emission inventory indicates that CO emissions in a five-county area of Northern New Jersey totaled 1,365 tons per winter day, with 928 tons per winter day attributed to all on-road mobile sources, suggesting that on-road mobile sources may contribute as much as 70 percent of the wintertime CO inventory statewide.

A fuller discussion of the overall environmental impact of the enhanced I/M program, generally, was provided by the Department in its July 17, 1995 proposal

at 27 N.J.R. 2752(a).

Federal Standards Analysis

Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c.65), require State agencies which adopt, readopt or amend State regulations that exceed any Federal standards or requirements to include in the rulemaking document a Federal standards analysis. The proposed new rules, repeals and amendments to N.J.A.C. 7:27-15 and N.J.A.C. 7:27B-5 could be considered to exceed Federal standards only insofar as they would establish new “interim” standards for LDGTs that are more stringent than the “initial” standards that the EPA has established for these vehicles. On the other hand, they are no more stringent than the “final” standards that, pursuant to the EPA’s enhanced I/M program rules, are required to go into effect on January 1, 2002. The EPA has indicated to states that it would be imprudent to implement these standards at this time and indicated further that it is working to develop substitute “final” standards to be used in their place.

The policy reasons for implementing these new “interim” standards are discussed in the Summary. To the extent that these standards are considered to be beyond Federal standards, the cost of meeting these standards will be more than offset by the economic benefits of complying with Clean Air Act mandates regarding attainment of the NAAQS for ozone and the actual savings related to reduced health care costs which cleaner air provides, as is discussed in the impact statements above. Furthermore, the proposed changes to the Department's rules do not modify the overall program design so as to in any way impose standards or requirements that exceed those contained in the current version of these rules. To the extent the

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program design imposes standards or requirements that exceed those contained in Federal law, a comparison with Federal law was provided at 27 N.J.R. 2752(a).) Accordingly, neither Executive Order 27 (1994) nor N.J.S.A. 52:14B-23 requires a cost-benefit analysis.

Jobs Impact

As was discussed above in the Economic Impact Statement, by ensuring that the State's enhanced I/M program is current and remains viable, these proposed amendments, repeals and new rules would result generally in the economic benefit realized by the enhanced I/M program by reducing the substantial cost to the State and its citizens associated with air pollution. While the overall economic impact of the program is positive, however, there are some costs to be borne by the private inspection facilities in upgrading to perform OBD inspections. (It should be noted that this proposed rulemaking does not add the OBD inspection component to the State's enhanced I/M program; in fact, it modifies the mandatory start date, giving the PIFs and the regulated community, generally, more time to prepare for implementation of OBD inspections. Thus the costs of upgrading to perform OBD inspections was anticipated when the State initially provided for the inclusion of this component in the program.)

To the extent that the continuation of the enhanced I/M program will result in economic benefit, it is not possible to determine how each affected entity will be impacted in terms of jobs. Each may well choose its own approach or combination of approaches in using this economic benefit.

For example, motorists and other citizens could spend the money which this economic benefit may represent in any of a multitude of ways, impacting on jobs to

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the extent that the spending of these funds increases the demand for services and thus leads to increased hiring by service companies. Companies with large motor vehicle fleets face similar options, which also include hiring additional workers.

To the extent, however, that there is a negative economic impact on the private inspection facilities, these entities might respond in a number of ways to absorb these costs. They might reduce their investments in equipment, delay or cancel improvements to their facilities, or reduce their workforce. Implementation of OBD inspections should not impact the number of workers needed to perform an enhanced inspection. However, to the extent that, during the phase-in of OBD inspections, the time spent on inspection would increase for those motor vehicles that receive both an OBD inspection and a “second chance test”, this increased inspection time could lead to more jobs in this employment sector.

Because all who may be affected by these savings or costs may respond in a different way, it is not possible to estimate accurately the extent, if any, to which these proposed amendments and new rules would affect employment in New Jersey.

Agriculture Industry Impact

Pursuant to the requirements of P.L. 1998, c.48, adopted on July 2, 1998, the Department has evaluated this rulemaking to determine the nature and extent to which the proposed new rules, repeals and amendments would impact on the agriculture industry. To the extent that the gasoline-fueled motor vehicles subject to enhanced inspections are used in agriculture, this proposed rulemaking would have no greater impact upon the agriculture industry than on any other industry in New Jersey; that is, to the extent that farmers and other participants in the agriculture industry own model year 1994 and newer light-duty gasoline trucks for

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which new “interim” standards are proposed, they may face somewhat increased costs of maintaining these vehicles. It should be noted that "non-road" heavy-duty farming equipment is not covered by this rulemaking and only the on-road vehicles used in agriculture to, for example, transport passengers, crops and other agriculture-related materials would be covered by the enhanced I/M program. On the other hand, the air quality improvements expected to be realized in New Jersey as a result of the enhanced I/M program in concert with other ambient ozone control strategies is expected to have a positive impact on the agricultural industry in New Jersey by reducing the damage to sensitive crops by high concentrations of ground-level ozone.

Regulatory Flexibility Analysis

In accordance with the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., the Department has determined that the proposed new rules, repeals and amendments would not impose additional reporting or recordkeeping requirements on small businesses (defined in the Regulatory Flexibility Act as those with fewer than 100 employees). However, the proposed rulemaking would impose some additional compliance requirements on the approximately 1,400 licensed PIFs and the approximately 2,200 registered Emission Repair Facilities (ERFs) in New Jersey that meet the definition of small businesses. (Approximately 1,200 of these businesses are both PIFs and ERFs.) Specifically, the integration of OBD inspections into the enhanced I/M program and the implementation of “interim” standards would require the PIFs to install new data tables, and upgrade software. Estimates of these compliance costs are provided in the Economic Impact Statement above. In addition, the phase-in of the OBD inspections component also establishes new requirements for dual testing of certain vehicles with which the PIFs would have

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to comply. No professional services would be required to comply with these requirements other than those provided by the equipment manufacturer in upgrading software. Furthermore, the integration of OBD inspections and the implementation of “interim” standards would have an impact on New Jersey-registered ERFs, insofar as they would now have to repair vehicles to meet these new standards. Professional services required could include additional repair training. None of the other substantive changes proposed herein would impose additional reporting or recordkeeping requirements or additional compliance requirements on small businesses.

By proposing to extend the date by which PIFs and ERFs will be required to comply with the new testing and repair requirements of OBD inspections, this proposed rulemaking is designed to minimize any adverse economic impact on these small businesses.

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

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.

...

"Motor vehicle [emission] 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- [5.12] **5.9**, Specifications for motor vehicle [emission] 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, [evaporative pressure testing apparatus, evaporative purge testing apparatus,] dynamometers, **on-board diagnostic scanners and analyzers, fuel cap leak testers, and** computers and related software.

...

"Second chance test" means the test given to a motor vehicle that has failed or has been deemed "not ready" for an OBD inspection, as provided at N.J.A.C. 7:27-15.5(g)1.iv. and v., N.J.A.C. 7:27-15.5(g)2.iv. and v., and N.J.A.C. 7:27-15.5(g)3.iv. and v.

...

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 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. 13:20-30.1 et seq., an initial inspection shall be required twice a year as provided at N.J.A.C. 13:20-30.13.**

(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 school bus inspection program, as generally set forth at N.J.A.C. 13:20-30.1 et seq., 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 motor vehicle passes all of the tests and satisfies all of the

requirements, as specified in (f) below, that constitute the [emission] inspection **or reinspection** at an appropriate inspection facility, as specified in (c) above; or

2. (No change.)

(e) Initial inspections shall be performed without repair or adjustment[, other than proper tightening of the gas cap,] at the inspection facility, prior to the inspection.

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

1. (No change.)

2. Unless the motor vehicle is exempt pursuant to N.J.A.C. 7:27-15.6(e) or (f), an exhaust emission test **or an on-board diagnostics inspection** utilizing motor vehicle [emission] testing equipment approved by the Department. The specific exhaust emission test **or on-board diagnostics inspection** to be [used] **conducted** shall be determined in accordance with (g) below;

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-[5.7] **5.6**;

4. [For an LDGV or LDGT of model year 1981 or later originally equipped with an evaporative emission control system, an evaporative pressure test utilizing motor vehicle emission testing equipment approved by the Department and conducted in accordance with

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N.J.A.C. 7:27B-5.8;

5. (Reserved);

6.] For an LDGV, LDGT or HDGV originally equipped with a sealed fuel filler cap (that is, not a directly vented fuel filler cap), [not otherwise subject to an evaporative pressure test pursuant to (f)4 above,] a fuel cap leak test utilizing motor vehicle [emission] testing equipment approved by the Department and conducted in accordance with N.J.A.C. 7:27B-[5.11] **5.8**;

[7. On and after January 1, 2001, for an LDGV or LDGT of model year 1996 or later, an on-board diagnostics test conducted in accordance with N.J.A.C. 7:27B-5.10;] and

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

(g) The exhaust emission test **or on-board diagnostics inspection** to be used pursuant to (f)2 above , **and as illustrated by Appendix 1,** shall be [determined] as follows:

1. [Except as specified in (g)2 and 3 below, the exhaust emission test procedure to be used shall be as follows] **The idle test set forth at N.J.A.C. 7:27B-5.3(b), if the motor vehicle is any of the following types and is not otherwise designated for the OBD inspection, as determined at (g)4 below:**

i. [For] **A** model year 1980 and older motor vehicle[s, the exhaust emission test procedure to be used shall be the idle test

set forth at N.J.A.C. 7:27B-5.3(b)] ; [and]

ii. [For model year 1981 and newer motor vehicles, the exhaust emission test procedure to be used shall be the ASM5015 test set forth at N.J.A.C. 7:27B-4.7, except that an inspection performed at a PIF may utilize the IM240 test set forth at N.J.A.C. 7:27B-4.8] **A motor vehicle that has a GVWR in excess of 8,500 pounds;**

iii. **A motor vehicle of model year 1996 or later, that, on and after January 1, 2003, has failed or was deemed “not ready” for an initial on-board diagnostic inspection (this shall be referred to as a “second chance test”); or**

iv. **A motor vehicle of model year 1996 or later, that, on and after January 1, 2003, has failed a “second chance test”;**

2. [Notwithstanding the provision of (g)1 above, if the motor vehicle has a GVWR in excess of 8,500 pounds, the exhaust emission test procedure to be used shall be the idle test set forth at N.J.A.C. 7:27B-4.5(b).

3. Notwithstanding the provision of (g)1 above,] **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[, the exhaust emission test procedure to be used shall be the 2,500 RPM test set forth at N.J.A.C. 7:27B-5.4] **and is not otherwise designated for testing with either the idle test, as**

determined at(g)1 above, the ASM5015 test, as determined at (g)3 below, or the OBD inspection, as determined at(g)4 below:

i. A motor vehicle of model year 1981 or later that employs either full-time four-wheel drive or non-disengageable traction control; [or]

ii. A low mileage vehicle of model year 1981 or later[.];

iii. A motor vehicle of model year 1996 or later, that, on and after January 1, 2003, has failed or was deemed “not ready” for an initial on-board diagnostic inspection (this shall be referred to as a “second chance test”);

iv. A motor vehicle of model year 1996 or later, that, on and after January 1, 2003, has failed a “second chance test”;
or

v. 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;

3. The ASM5015 test set forth at N.J.A.C. 7:27B-5.5, if the motor vehicle is any of the following types and is not otherwise designated for testing with either the idle test, as determined at (g)1 above, the 2,500 RPM test, as determined at(g)2 above, or the OBD inspection, as determined at (g)4 below:

i. a motor vehicle of model year 1981 through model

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year 1995;

ii. a motor vehicle of model year 1996 or later, before January 1, 2003;

iii. a motor vehicle of model year 1996 or later, that, on and after January 1, 2003, has failed or was deemed not ready for an initial on-board diagnostic inspection (this shall be referred to as a “second chance test”); or

iv. a motor vehicle of model year 1996 or later, that, on and after January 1, 2003, has failed a “second chance test”;

4. The on-board diagnostics inspection set forth at N.J.A.C. 7:27B-5.7, if the motor vehicle is a model year 1996 or later motor vehicle capable of being OBD inspected and for which, on and after January 1, 2003:

i. an on-board diagnostic inspection was practicable at the inspection facility where the motor vehicle was presented for inspection; and

ii. the motor vehicle is not otherwise designated for testing with either the idle test, as determined at (g)1 above, the 2,500 RPM test, as determined at (g)2 above, or the ASM5015 test, as determined at (g)3 above.

(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) [within 30 days] **by the deadline specified by the DMV 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 [30-day] deadline **established by the DMV at N.J.A.C. 13:20-7.5, 7.6(a) or 43.14(g), as applicable:**

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

2. (No change.)

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

1. (No change.)

2. Unless the motor vehicle is exempt pursuant to N.J.A.C. 7:27-15.6(e) or (f), an idle test utilizing motor vehicle [emission] testing equipment approved by the Department and conducted in accordance with N.J.A.C. 7:27B-5.3(b);

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;**

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. 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-[5.7] **5.6;**

[4. For an LDGV or LDGT of model year 1981 or later, originally equipped with an evaporative emission control system, unless the motor vehicle is exempt pursuant to N.J.A.C. 7:27-15.6(e) or (f), an evaporative pressure test utilizing motor vehicle emission testing equipment approved by the Department and conducted in accordance with N.J.A.C. 7:27B-5.8; and]

6. For an LDGV, LDGT or HDGV 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. For an LDGV or LDGT of model year 1996 and newer, 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; and

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

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

[(I) Each year DMV 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 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.]

7:27-15.6 Motor vehicle inspection standards

(a) (No change.)

(b) Any light-duty gasoline-fueled vehicle, light-duty gasoline-fueled truck or heavy-duty gasoline-fueled vehicle shall not emit carbon monoxide (CO), 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
(No change.)

2. (No change.)

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[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; or

4. If, pursuant to the provisions of N.J.A.C. 7:27-15.5(g), a motor vehicle is tested using the IM240 test, the motor vehicle shall be subject to the applicable exhaust emission standards set forth in Table 4 below. Compliance with these standards shall be determined in accordance with the inspection test procedure at N.J.A.C. 7:27B-5.6.]

TABLE 2
EXHAUST EMISSION STANDARDS
FOR THE 2,500 RPM TEST
(No change.)

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
(Effective through December 31, [2001] **2002**)

This proposal has been filed with the Office of Administrative Law which may edit it before publishing it in the New Jersey Register. Please refer to the January 22, 2002 New Jersey Register for the official text of the proposal.

Model Years	HC*	CO*	NO _x *
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 [5] 4, below, which contains the actual exhaust emission standards.

LDGVs Powered by a Fuel Other Than Gasoline [(Effective through December 31, 2001)]

(Reserved)

LDGT1s Powered by Gasoline (Effective through December 31, [2001] **2002**)

Model Years	HC*	CO*	NO _x *
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 [5] 4, below, which contains the

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actual exhaust emission standards.

LDGT1s Powered by a Fuel Other Than Gasoline
 [(Effective through December 31, 2001)]
 (Reserved)

LDGT2s Powered by Gasoline
 (Effective through December 31, [2001] **2002**)

Model Years	HC*	CO*	NO _x *
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 [5] 4, below, which contains the actual exhaust emission standards.

LDGT2s Powered by a Fuel Other Than Gasoline
 [(Effective through December 31, 2001)]
 (Reserved)

LDGVs Powered by Gasoline
 (Effective January 1, [2002] **2003**)

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Model Years	HC*	CO*	NO _x *
1981-1982	[1] <u>4</u>	[11] <u>13</u>	[17] <u>19</u>
1983 [+] - <u>1990</u>	[1] <u>4</u>	[9] <u>11</u>	[17] <u>19</u>
<u>1991-1995</u>	<u>2</u>	<u>10</u>	<u>18</u>
<u>1994 + Tier 1</u>	<u>1</u>	<u>9</u>	<u>17</u>

*The numbers given in this column refer to the appropriate column number in Table [5] 4, below, which contains the actual exhaust emission standards.

[LDGVs Powered by a Fuel Other Than Gasoline
(Effective January 1,2002)
(Reserved)]

LDGT1s Powered by Gasoline
(Effective January 1, [2002] 2003)

Model Years	HC*	CO*	NO _x *
1981-1983	[7] <u>8</u>	[14] <u>16</u>	[22] <u>24</u>
1984-1987	[3] <u>6</u>	[12] <u>15</u>	[22] <u>24</u>
1988- [1995] <u>1990</u>	[3] <u>6</u>	[12] <u>15</u>	[18] <u>20</u>
<u>1991-1995</u>	<u>5</u>	<u>13</u>	<u>19</u>
1994+ Tier 1	1	9	17

*The numbers given in this column refer to the appropriate column number in Table [5] 4, below, which contains the actual exhaust emission standards.

[LDGT1s Powered by a Fuel Other Than Gasoline

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(Effective January 1, 2002)
(Reserved)]

LDGT2s Powered by Gasoline
(Effective January 1, [2002] **2003**)

Model Years	HC*	CO*	NO _x *
1981-1983	[7] 8	[14] 16	[22] 24
1984-1987	[3] 6	[12] 15	[22] 24
1988- [1995] 1990	[3] 6	[12] 15	[20] 23
<u>1991-1995</u>	<u>5</u>	<u>13</u>	<u>22</u>
1994+ Tier 1	[1] 3	[9] 11	[17] 19

*The numbers given in this column refer to the appropriate column number in Table [5] **4**, below, which contains the actual exhaust emission standards.

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**[TABLE 4
EXHAUST EMISSION STANDARDS
FOR THE IM240 TEST**

**LDGVs Powered by Gasoline
(effective through December 31, 2001)**

Model Years	HC		CO		NO _x	
	(g/mi)		(g/mi)		(g/mi)	
	Composite	Phase 2	Composite	Phase 2	Composite	Phase 2
1968-1972	10.0	6.00	150	120	10.0	10.0
1973-1974	10.0	6.00	150	120	9.0	9.0
1975-1976	7.50	5.00	90.0	72.0	9.0	9.0
1977-1979	7.50	5.00	90.0	72.0	6.0	6.0
1980	2.00	1.25	60.0	48.0	6.0	6.0
1981-1982	2.00	1.25	60.0	48.0	3.0	3.0
1983-1990	2.00	1.25	30.0	24.0	3.0	3.0
1991-1995	1.20	0.75	20.0	16.0	2.5	2.5
1994+Tier 1	0.80	0.50	15.0	12.0	2.0	2.0

**LDGVs Powered by a Fuel Other Than Gasoline
(effective through December 31, 2001)
(Reserved)**

**LDGT1s Powered by Gasoline
(effective through December 31, 2001)**

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Model Years	HC (g/mi)		CO (g/mi)		NO _x (g/mi)	
	Composite	Phase 2	Composite	Phase 2	Composite	Phase 2
1968-1972	10.0	6.00	150	120	10.0	10.0
1973-1974	10.0	6.00	150	120	9.0	9.0
1975-1978	8.00	5.00	120	96.0	9.0	9.0
1979-1983	7.50	5.00	100	80.0	7.0	7.0
1984-1987	3.20	2.00	80.0	64.0	7.0	7.0
1988-1990	3.20	2.00	80.0	64.0	3.5	3.5
1991-1995	2.40	1.50	60.0	48.0	3.0	3.0
1994+ Tier 1						
(LVW#3750)	0.80	0.50	15.0	12.0	2.0	2.0
(LVW>3750)	1.00	0.63	20.0	16.0	2.5	2.5

LDGT1s Powered by a Fuel Other Than Gasoline
(effective through December 31, 2001)
(Reserved)

LDGT2s Powered by Gasoline
(effective through December 31, 2001)

Model Years	HC (g/mi)		CO (g/mi)		NO _x (g/mi)	
	Composite	Phase 2	Composite	Phase 2	Composite	Phase 2
1968-1972	10.0	6.00	150	120	10.0	10.0
1973-1974	10.0	6.00	150	120	9.0	9.0
1975-1978	8.00	5.00	120	96.0	9.0	9.0
1979-1983	7.50	5.00	100	80.0	7.0	7.0
1984-1987	3.20	2.00	80.0	64.0	7.0	7.0

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1988-1990	3.20	2.00	80.0	64.0	5.0	5.0
1991-1995	2.40	1.50	60.0	48.0	4.5	4.5
1994+ Tier 1						
(LVW#5750)	1.00	0.63	20.0	16.0	2.5	2.5
(LVW>5750)	2.40	1.50	60.0	48.0	4.0	4.0

**LDGT2s Powered by a Fuel Other Than Gasoline
(effective through December 31, 2001)
(Reserved)**

**LDGVs Powered by Gasoline
(effective January 1, 2002)**

Model Years	HC		CO		NO _x	
	(g/mi)		(g/mi)		(g/mi)	
	Composite	Phase 2	Composite	Phase 2	Composite	Phase 2
1968-1972	7.00	4.50	120	96.0	7.0	7.0
1973-1974	7.00	4.50	120	96.0	6.0	6.0
1975-1976	3.00	2.00	65.0	52.0	6.0	6.0
1977-1979	3.00	2.00	65.0	52.0	4.0	4.0
1980	0.80	0.50	30.0	24.0	4.0	4.0
1981-1982	0.80	0.50	30.0	24.0	2.0	2.0
1983-1995	0.80	0.50	15.0	12.0	2.0	2.0
1994+Tier 1	0.60	0.40	10.0	8.0	1.5	1.5

LDGVs Powered by a Fuel Other Than Gasoline

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(effective January 1, 2002)
(Reserved)

LDGT1s Powered by Gasoline
(effective January 1, 2002)

Model Years	HC (g/mi)		CO (g/mi)		NO _x (g/mi)	
	Composite	Phase 2	Composite	Phase 2	Composite	Phase 2
1968-1972	7.00	4.50	120	96.0	7.0	7.0
1973-1974	7.00	4.50	120	96.0	6.0	6.0
1975-1978	4.00	2.50	80.0	64.0	6.0	6.0
1979-1983	3.40	2.00	70.0	56.0	4.5	4.5
1984-1987	1.60	1.00	40.0	32.0	4.5	4.5
1988-1995	1.60	1.00	40.0	32.0	2.5	2.5
1994+ Tier 1						
(LVW#3750)	0.80	0.40	10.0	8.0	1.5	1.5
(LVW>3750)	1.00	0.50	13.0	10.0	1.8	1.8

LDGT1s Powered by a Fuel Other Than Gasoline
(effective January 1, 2002)
(Reserved)

LDGT2s Powered by Gasoline
(effective January 1, 2002)

Model Years	HC (g/mi)		CO (g/mi)		NO _x (g/mi)	
	Composite	Phase 2	Composite	Phase 2	Composite	Phase 2
1968-1972	7.00	4.50	120	96.0	7.0	7.0

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1973-1974	7.00	4.50	120	96.0	6.0	6.0
1975-1978	4.00	2.50	80.0	64.0	6.0	6.0
1979-1983	3.40	2.00	70.0	56.0	4.5	4.5
1984-1987	1.60	1.00	40.0	32.0	4.5	4.5
1988-1995	1.60	1.00	40.0	32.0	3.5	3.5
1994+ Tier 1						
(LVW#5750)	0.80	0.50	13.0	10.0	1.8	1.8
(LVW>5750)	0.80	0.50	15.0	12.0	2.0	2.0

LDGT2s Powered by a Fuel Other Than Gasoline
(effective January 1, 2002)
(Reserved)]

Table [5] 4 (No change to text)

(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-[5.7, 5.8, 5.9, 5.10 and 5.11] 5.6.

(d) Except as provided in (e) and (f) below, the applicability of the standards set forth in this subchapter and of the test procedure[s] set forth at N.J.A.C. 7:27B-5.3 [, 5.4, 5.5, 5.6, 5.7,] through 5.8, [5.9, 5.10 and 5.11] 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[, 3] and [4] 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 [an evaporative pressure test and an evaporative purge] 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, 3] and [4] 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.)

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APPENDIX 1

The following table summarizes the provisions of N.J.A.C. 7:27-15.5(g) to show which vehicles would receive which tests as the initial, second-chance or reinspection tests:

test/model year	1980 and older	1981 - 1995	1996 and newer¹
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	all others
OBD (for initial only)	-	-	all (only after 1/1/2003)

¹Beginning on January 1, 2003, vehicles eligible for OBD inspection may receive either an OBD inspection or the appropriate tailpipe emission test. Furthermore, a vehicle that fails an OBD inspection would be given the tailpipe emission test it would have received before January 1, 2003, as a “second chance test.”

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

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.

...

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

...

“Diagnostic trouble code” or “DTC” means, for an OBD-equipped motor vehicle, those codes stored by the motor vehicle's on-board computer when it detects a malfunction or a component failure.

...

“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. While 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

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"start" position to start the engine. While 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."

"Motor vehicle [emission] 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-[5.12] 5.9, Specifications for motor vehicle [emission] 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, [evaporative pressure testing apparatus, evaporative purge testing apparatus,] dynamometers, **on-board diagnostic scanners and analyzers, fuel cap leak testers, and** computers and related software.

"OBDII VIN" means the on-board diagnostics vehicle identification number that is stored electronically by some motor vehicles within the on-board diagnostics computer system.

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“On-Board Diagnostics” or “OBD” means an automotive diagnostic system complying with California or EPA OBD II regulations effective for model year 1996 and newer motor vehicles.

"PCM ID" means powertrain control module identification.

"PID count" means a number of parameter identification requests exchanged between a motor vehicle’s OBD system and the analyzer in the course of an OBD 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.”

"Readiness" means that the motor vehicle's on-board computer has successfully completed self-diagnostic routines on all supported subsystems as indicated by all supported readiness monitors showing a “ready” condition. A status of readiness does not indicate whether or not the vehicle has passed or failed the OBD inspection but only that a motor vehicle is properly prepared for an OBD inspection.

...

“Vehicle inspection report” or “VIR” means the report generated to reflect the results of the inspection conducted pursuant to the enhanced inspection and maintenance program and the inspection requirements set forth at N.J.A.C. 7:27-15 and N.J.A.C. 7:27B-5.

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[, 5.4, 5.5, 5.6, 5.7,] **through** 5.8, [5.9, 5.10 and 5.11,] shall perform the test in accordance with the following general procedures:

1. - 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 [in] **at** N.J.A.C. 7:27B-[5.12] **5.9**.

(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 [emission] testing equipment that has been approved by the Department prior to its use in the test. Approval by the Department is based on the following criteria:

1. The equipment [meets all applicable specifications] **conforms with the requirements set forth at N.J.A.C. 7:27B-5.9;**

2. - 4. **(No change.)**

(d) **(No change.)**

[7:27B-5.6 Procedures for the IM240 test

(a) The IM240 testing procedure may be used on motor vehicles subject to the exhaust emission test in accordance with N.J.A.C. 7:27-15.5(g) or on motor vehicles subject to a program evaluation test in accordance with N.J.A.C. 7:27-15.5(l).

(b) The procedures for the IM240 test are specified as follows:

1. On and after the date EPA promulgates the exhaust test procedures to be used for the IM240 test at 40 C.F.R. 85.2221, such procedures and all subsequent revisions thereto shall be incorporated herein by reference;

2. Until EPA promulgates such procedures, the applicable procedures shall be those described in the EPA technical guidance document EPA420 R-98-010, entitled IM240 and Evap Technical Guidance, incorporated herein by reference. A copy of this EPA technical guidance document has been filed with the Office of Administrative Law and may be obtained from the Public Access Center in the Department of Environmental Protection. If the emissions of carbon monoxide, hydrocarbons, or oxides of nitrogen recorded using these procedures exceed the applicable standards specified in Table 4 at N.J.A.C. 7:27-15.6, the motor vehicle shall be determined to fail the IM240 test.]

7:27B-[5.7] 5.6 Emission control apparatus examination procedure (No change.)

[7:27B-5.8 Procedures for the evaporative pressure test

(a) The testing procedure for the evaporative pressure test, to be used to determine a motor vehicle's compliance with the evaporative pressure test requirements at N.J.A.C. 7:27-15.5(f)4, is specified as follows:

1. On and after the date EPA promulgates the procedures to be used for the evaporative pressure 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, the applicable procedures and standards shall be those described in the EPA technical guidance document EPA420 R-98-010, entitled IM240 and Evap Technical Guidance, incorporated herein by reference. A copy of this EPA technical guidance document has been filed with the Office of Administrative Law and may be obtained from the Public Access Center in the Department of Environmental Protection.]

[7:27B-5.9 (Reserved)]

7:27B-[5.10] 5.7 Procedures for the on-board diagnostics [testing] inspection

(a) The procedure for the on-board diagnostics [test procedure shall be performed in accordance with the procedures at 40 C.F.R. 85.2222, and all subsequent revisions thereto, incorporated herein by reference.] inspection, to be used to determine a motor vehicle's compliance with the on-board diagnostics inspection requirements at N.J.A.C. 7:27-15.5(f)2, is specified as follows:

This proposal has been filed with the Office of Administrative Law which may edit it before publishing it in the New Jersey Register. Please refer to the January 22, 2002 New Jersey Register for the official text of the proposal.

- 1. Turn off the motor vehicle's engine and connect the analyzer to the motor vehicle computer via the diagnostic connector located on the motor vehicle;**
- 2. Determine if the MIL is functional by briefly turning the motor vehicle ignition system to the KOEO position;**
- 3. Start the motor vehicle and leave the engine running. The analyzer will attempt to communicate with the motor vehicle OBD system;**
- 4. If the analyzer successfully communicates with the motor vehicle OBD system, it will then retrieve a variety of stored information relating to the identification of the motor vehicle and any malfunctions recorded by the on-board computer;**
- 5. If the analyzer 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;**
- 6. If the analyzer determines that the OBD system or the motor vehicle is malfunctioning, the motor vehicle has failed the OBD inspection;**
- 7. 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;

8. If the motor vehicle fails or is deemed “not ready” for the OBD inspection, it will be subject to an exhaust emission test, as directed at N.J.A.C. 7:27-15.5(g);

(b) The on-board diagnostics inspection procedure is largely a process whereby the motor vehicle testing equipment and the motor vehicle on-board computer 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 version, reflecting the logic flow of pass and fail determinations within the procedure, is included in Appendix 8 to N.J.A.C. 7:27B. Additional technical details are set forth in the Department’s OBD equipment specifications, which can be obtained in an electronic format by contacting the Bureau of Transportation Control at (609) 530-4035.

7:27B-[5.11] 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)[6]4 shall perform the test as follows:

1. **(No change.)**

This proposal has been filed with the Office of Administrative Law which may edit it before publishing it in the New Jersey Register. Please refer to the January 22, 2002 New Jersey Register for the official text of the proposal.

2. Until EPA promulgates such procedures and standards, the applicable procedures and standards shall be those described in the EPA technical guidance document [EPA-AA-RSPD-I/M-98-1] **EPA420 R-98-010**, entitled IM240 and Evap Technical Guidance, incorporated herein by reference. A copy of this EPA technical guidance document [has been filed with the Office of Administrative Law and] may be obtained from the Public Access Center in the Department of Environmental Protection.

7:27B-[5.12] 5.9 Specifications for motor vehicle [emission] testing equipment for use in the New Jersey Enhanced Inspection and Maintenance Program

(a) **(No change.)**

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

1. **(No change.)**

2. Until EPA promulgates such specifications, the applicable specifications shall be those described in the EPA technical guidance document EPA-AA-RSPD-IM-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 [has been filed with the Office of Administrative Law and] may be obtained from the Public Access Center in the Department of Environmental Protection.

[(c)] Equipment used for performing the IM240 test, as set forth at N.J.A.C. 7:27B- 5.6, shall conform with the following:

1. On and after the date EPA promulgates the IM240 equipment specifications at 40 C.F.R. 85.2226, 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-98-010, entitled IM240 and Evap Technical Guidance, incorporated herein by reference. A copy of this EPA technical guidance document has been filed with the Office of Administrative Law and may be obtained from the Public Access Center in the Department of Environmental Protection.]

[(d)] (c) Equipment used for performing [the evaporative pressure test, as set forth at N.J.A.C. 7:27B-5.8 or] the fuel cap leak test, as set forth at N.J.A.C. 7:27B-[5.10] **5.8**, shall be in accordance with the following:

1. **(No change.)**
2. Until EPA promulgates such specifications, the applicable specifications shall be those described in the EPA technical guidance document EPA420 R-98-010, entitled IM240 and Evap Technical Guidance, incorporated herein by reference. A copy of this EPA technical guidance document [has been filed with the Office of Administrative Law and] may be obtained from the Public Access Center in the Department of Environmental Protection.

This proposal has been filed with the Office of Administrative Law which may edit it before publishing it in the New Jersey Register. Please refer to the January 22, 2002 New Jersey Register for the official text of the proposal.

[(e)] (d) Equipment used for performing the on-board diagnostics test, as set forth at N.J.A.C. 7:27B- ~~[5.10]~~ **5.7**, 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** [in accordance with] 40 C.F.R. 85.2231, and all subsequent revisions thereto, incorporated herein by reference.

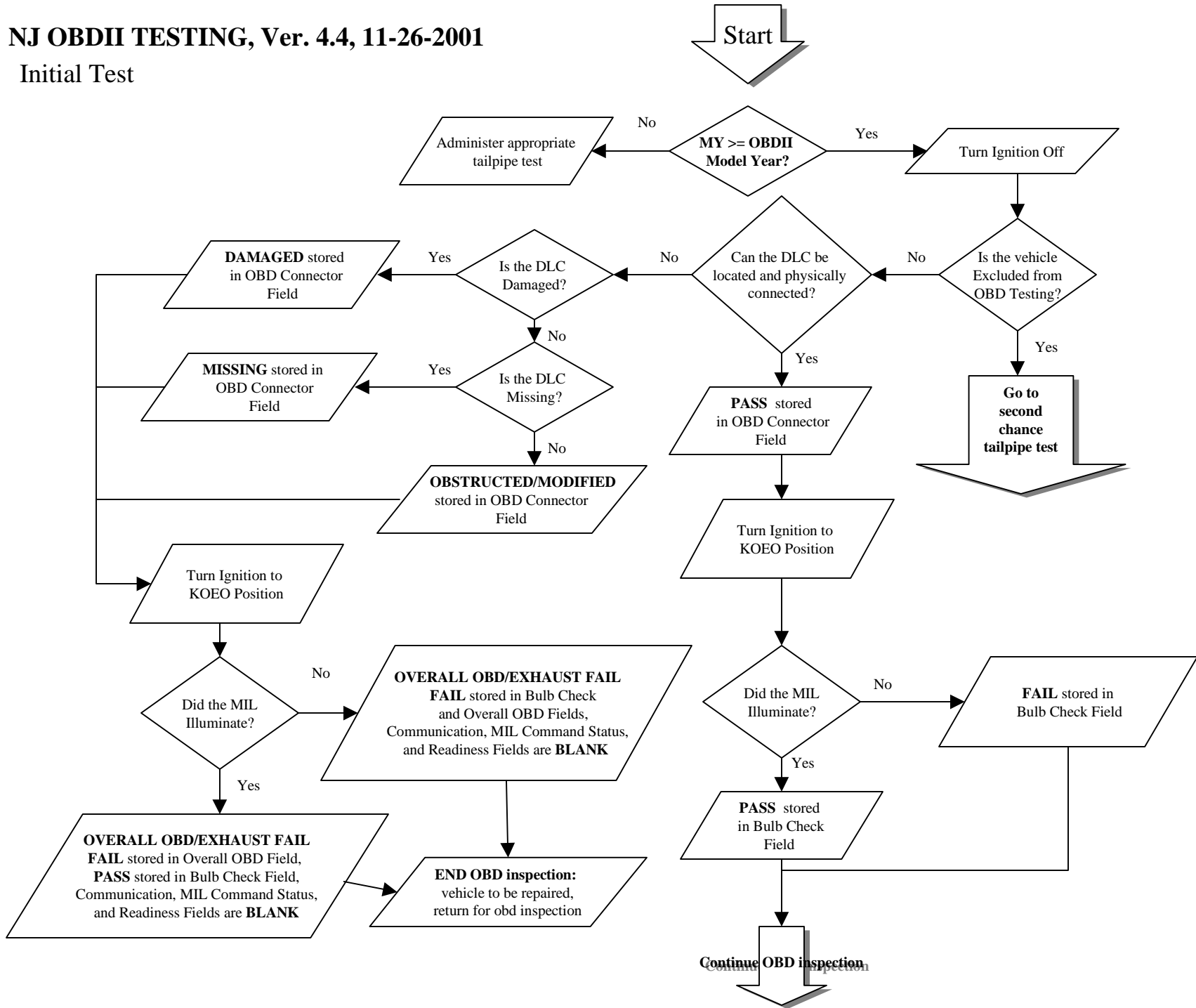
APPENDIX 8

Procedures for On-board Diagnostics Testing

The following flow-chart reflects a more detailed version of the OBD inspection than that provided at N.J.A.C. 7:27B-5.7, including more of the process whereby the motor vehicle testing equipment and the motor vehicle on-board computer interface and exchange information and reflecting the logic flow of pass and fail determinations within the procedure. Additional technical details are set forth in the Department's OBD equipment specifications, which can be obtained in an electronic format by contacting the Bureau of Transportation Control at (609) 530-4035.

NJ OBDII TESTING, Ver. 4.4, 11-26-2001

Initial Test



NJ OBDII TESTING, Ver. 4.4, 11-26-2001

Initial Test, continued

