

**Commonwealth of Pennsylvania
Department of Environmental Protection**



**Final State Implementation Plan Revision
Vehicle Emissions Inspection/Maintenance Program
Program Changes**

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BACKGROUND

A. Pennsylvania's 1996 I/M SIP

On March 22, 1996, the Secretary of the Pennsylvania Department of Environmental Protection (Department) submitted to the United States Environmental Protection Agency (EPA) a revision to the State Implementation Plan (SIP) for the Commonwealth of Pennsylvania's (Commonwealth's or Pennsylvania's) enhanced vehicle emission inspection and maintenance (I/M) program. Subsequent SIP revisions were submitted to EPA for approval on June 27, 1996; July 29, 1996; November 1, 1996; October 22, 1997; November 13, 1997; February 24, 1998; August 21, 1998; November 25, 1998; March 3, 1999; and July 23, 2003. These 1996 I/M SIP submittals included regulations, codified at 67 Pa. Code Chapter 177, to implement Pennsylvania's enhanced I/M program.

On October 3, 1996, EPA published a notice of proposed approval for Pennsylvania's enhanced vehicle emission I/M program. 61 Fed. Reg. 51638. On January 28, 1997, EPA published a direct final rule granting "interim conditional approval" of Pennsylvania's I/M program. 62 Fed. Reg. 4004. After Pennsylvania satisfied the EPA-imposed conditions, EPA published a direct final rule on July 17, 1999, converting its conditional approval of Pennsylvania's enhanced I/M SIP revision to full approval. 64 Fed. Reg. 32411. The I/M SIP revision as then approved will, hereinafter, be referred to as the "1996 I/M SIP." On July 23, 2003, the Department proposed an I/M SIP revision to incorporate EPA-revised final Acceleration Simulation Mode (ASM) tailpipe emissions test standards into the Philadelphia area. EPA approved this revision

on August 15, 2003. 68 Fed. Reg. 48803. These approved SIP revisions are codified in 52 CFR §52.2020(c)(139) and 52 CFR §2020(c)(211).

B. On Board Diagnostic Requirements

Under the Clean Air Act (CAA) as amended in 1990, 42 U.S.C. §§ 7401 *et seq.*, states, including this Commonwealth, which are required to implement I/M programs, are further required to incorporate a check of the On Board Diagnostic (OBD) system as part of such program. On November 5, 1992, the EPA published a final rule relating to state air quality implementation plans for I/M programs. *See* 57 Fed. Reg. 52950. At the time of the November 5, 1992 publication, however, federal OBD certification standards had not yet been developed and published. To address the CAA OBD-I/M requirement, EPA reserved sections in the regulations with the understanding that these reserved sections would be amended at some future date. Although the federal requirement to incorporate OBD into new vehicles began with the 1994 model year (MY), manufacturers were allowed to request waivers on vehicles for MY 1994-95. Full compliance was thus not required on all light-duty cars and trucks sold in the United States until MY 1996.

The engines in vehicles MY 1996 and newer are largely electronically controlled. Optimal engine performance and control is maintained by a system of sensors and actuators. An onboard computer controls all of these systems. With proper software, the onboard computer is capable of monitoring all of the sensors and actuators to determine whether they are working as intended. It can detect a malfunction or deterioration of the various sensors and actuators, usually well before the driver becomes aware of the problem through a loss in vehicle performance or drivability. The sensors and actuators,

along with the diagnostic software in the onboard computer, make up what is called "the OBD system."

Many component failures that have an impact on emissions can be electrical or even chemical in nature. The OBD system is intended to detect problems that may not be noticeable upon visual inspection. When the OBD system determines that a problem exists, a corresponding "diagnostic trouble code" is stored in the computer's memory. When the vehicle is taken to a service center or repair shop, a service technician can retrieve the stored diagnostic trouble codes from the computer memory of the vehicle using newly-developed diagnostic tools. Since the diagnostic trouble codes will specifically identify the problem, the service technician can make the proper repair more quickly and accurately.

On August 6, 1996, EPA published amendments to its 1992 I/M regulations establishing OBD-I/M performance standards. The 1996 amendments also established data collection, analysis, and summary reporting requirements for the OBD-I/M testing element; established OBD test equipment requirements and the OBD test result reporting format; and identified those conditions that would result in an OBD-I/M pass, failure or rejection. Lastly, the August 6, 1996 amendments revised 40 CFR Part 85, subpart W to establish OBD-I/M as an official performance warranty short test under section 207(b) of the CAA. At the time the original OBD-I/M requirements were established, it was not practical to evaluate the real world, in-use performance of OBD because the vehicles in question were still too new and the number of those vehicles in need of repair was too few to make pilot testing worthwhile. On May 4, 1998, EPA further amended its OBD-

I/M requirements to provide that state I/M programs begin OBD testing no later than January 1, 2001.

On April 5, 2001, EPA published final regulations detailing its requirements for OBD testing. *See* 66 Fed. Reg. 18156 – 18179 (hereinafter referred to as the “OBD Final Rule.”) In the OBD Final Rule, EPA amended its OBD-I/M regulations to: 1) provide states several options for extending the current deadline for mandatory implementation of OBD-I/M inspections beyond January 1, 2001; 2) clarify states’ options regarding the integration of OBD-I/M checks into existing I/M programs; 3) revise and simplify the current list of diagnostic trouble codes that constitute the OBD-I/M failure criteria to include any code that leads the dashboard Malfunction Indicator Light (MIL) to illuminate; and 4) provide for exemptions from specific readiness code rejection criteria on OBD-equipped vehicles based upon vehicle model year.

On December 14, 2001, pursuant to the OBD Final Rule, the Commonwealth submitted to EPA a revision to the SIP which constituted a request to extend the deadline for implementing OBD system checks of 1996-and-newer vehicles. The Commonwealth requested this extension on the grounds of, among other items, extant hardware and software deficiencies; computer communications problems; extensive training requirements for service technicians; and the desire to conduct a pilot program to address the above problems. On June 6, 2003, EPA published both a direct final rule and a proposed rule to approve the request for the one-year extension. Due to the receipt of an adverse comment, EPA withdrew the direct final rule, leaving only the proposed approval. EPA indicated that all public comments received would be addressed in a subsequent final rule based on the proposed rule.

In order for Pennsylvania to implement OBD, the Commonwealth must amend its vehicle emission inspection program regulations, codified at 67 Pa. Code Chapter 177. These amendments are included herein. The amendments are promulgated pursuant to Section 4706 of the Vehicle Code, 75 Pa. C.S. § 4706 (which exempts these regulations from the proposed rulemaking provisions of the Commonwealth Documents Law, the Act of July 31, 1968, P.L. 769, *as amended*, and the Regulatory Review Act, Act of June 25, 1982 (P.L. 622, No. 181), *as amended*, 71 P.S. § 745.1 *et seq.*), and Section 4710 of the Vehicle Code, 75 Pa. C.S. §4710 (which provides for initial submission of final regulations relating to the I/M program to the Office of Attorney General for review as to form and legality and thereafter to the Independent Regulatory Review Commission and the designated Committees of the Pennsylvania Senate and House of Representatives, in accordance with the Regulatory Review Act, Act of June 25, 1982 (P.L. 622, No. 181), *as amended*, 71 P.S. § 745.1 *et seq.*). The amendments to Chapter 177 also correct typographical errors which appeared in the original regulations. The Chapter 177 amendments were published as final in the *Pennsylvania Bulletin* [33 Pa. B. 5706] on November 22, 2003 and are attached as Appendix A.

C. The Settlement Agreements

Section 177.22 of the Pennsylvania I/M regulation provided as follows:

The enhanced I/M program, as described in this chapter, will commence in Bucks, Chester, Delaware, Montgomery, Philadelphia, Allegheny, Beaver, Washington and Westmoreland counties on a date designated by the Secretary by notice in the *Pennsylvania Bulletin* on or by November 15, 1997, whichever occurs first. It will commence by November 15, 1999, in the remaining counties subject to the I/M program. The notice will provide affected motorists with at least 60 days notice. The Department may exercise discretion in the implementation of the

enhanced I/M program with respect to phasing in the areas required to comply.

The regulation specifically identified nine counties required to implement enhanced I/M in 1997, but did not identify the counties that were to implement I/M in 1999. Although the state regulation provided that the enhanced I/M program would commence in the remaining counties by November 15, 1999, no enhanced I/M program was implemented in the remaining 16 counties (Lehigh, Northampton, Berks, Cumberland, Dauphin, Lancaster, Lebanon, York, Blair, Cambria, Centre, Erie, Lackawanna, Luzerne, Lycoming and Mercer).

Two separate lawsuits were subsequently filed against the Secretaries of the Department of Environmental Protection and the Department of Transportation by Citizens for Pennsylvania's Future (No. 02-798, United States District Court for the Eastern District of Pennsylvania) and by the Clean Air Council (No. 1:CV-02-0442, United States District Court for the Middle District of Pennsylvania). Both complaints alleged that under the submitted and approved SIP, Pennsylvania was required to have an I/M program in nine counties by October 1, 1997, and in the 16 additional counties by November 1999, and that having failed to meet the November 15, 1999 date for implementation of enhanced I/M in the 16 counties, the Secretaries were in violation of emission standards or limitations within the meaning of 42 U.S.C. § 7604(a)(1) and (f). By order dated December 18, 2002, the United States District Court for the Eastern District of Pennsylvania granted a Motion for Partial Summary Judgment filed by the Citizens for Pennsylvania's Future. In its decision, the Court stated that although the appropriate remedy is injunctive relief warranting an order to the Secretaries to

implement the I/M program as described in the approved I/M SIP in the remaining counties, the Court had no information on how or how soon the implementation could be achieved. The Court therefore directed the parties to conclude any fact discovery relevant to the remedy by February 15, 2003, to confer on an appropriate remedy, and to file a joint proposed Order, or separate memoranda, no later than February 28, 2003.

All parties to the litigation were cognizant of the fact that the Commonwealth would necessarily also be incorporating requirements of OBD Testing into its I/M program. Taking into consideration that OBD is EPA's preferred testing method for vehicles MY 1996 and newer, the parties were able to reach an agreement as to what will be included in the Commonwealth's I/M program for the 16 counties. The programs described in the settlement agreements incorporate the OBD test in what is identified as the South Central Region (Berks, Cumberland, Dauphin, Lancaster, Lebanon, Lehigh, Northampton and York). Most 1996 and newer vehicles will undergo an annual OBD check (which also detects tampering) and a gas cap leakage test. In addition, most 1975 through 1995 vehicles will receive a gas cap test and a visual anti-tampering check. The visual anti-tampering check ensures that key parts of the vehicle's emissions control system, such as the catalytic converter, have not been removed or rendered inoperable. In what is termed the Northern Region (Blair, Cambria, Centre, Erie, Lackawanna, Luzerne, Lycoming and Mercer), most 1975 and newer vehicles will undergo an annual gas cap test and a visual anti-tampering check.

The parties also agreed to require vehicles registered in the non-I/M counties to undergo a visual inspection for the presence of required emissions components as part of the statutorily mandated vehicle safety inspection. Commonwealth law requires that

federally required emissions components be present on most vehicles. Specifically, Section 4107 of the Vehicle Code, 75 Pa. C.S. § 4107, makes it unlawful for persons to willfully and intentionally remove, or render inoperative, an item of vehicle equipment which was required to be installed at the time of the vehicle's manufacture. The CAA requires vehicle manufacturers to install the emission control equipment. The presence and operability of this equipment is the subject of the Chapter 175 vehicle safety program rulemaking. While an anti-tampering check to ensure that the emission components are present and have not been rendered inoperative has been and will continue to be a part of the I/M inspection in each county with an I/M program, there currently are no provisions for such a check of the required equipment in what ultimately will be the remaining 42 counties. The agreement reached provides for the adoption of a regulation that will eliminate this gap. This regulation will be applicable in all counties that do not have an emissions program (Adams, Armstrong, Bedford, Bradford, Butler, Cameron, Carbon, Clarion, Clearfield, Clinton, Columbia, Crawford, Elk, Fayette, Forest, Franklin, Fulton, Greene, Huntingdon, Indiana, Jefferson, Juniata, Lawrence, McKean, Mifflin, Monroe, Montour, Northumberland, Perry, Pike, Potter, Schuylkill, Snyder, Somerset, Sullivan, Susquehanna, Tioga, Union, Venango, Warren, Wayne and Wyoming).

In order for Pennsylvania to implement an anti-tampering program in non-I/M counties, the Commonwealth amended its vehicle equipment and safety inspection regulations codified at 67 Pa. Code Chapter 175. On August 23, 2003, a proposed rulemaking was published in the *Pennsylvania Bulletin* for a 30-day public comment period. The comment period closed on September 23, 2003 with the final rule published in the *Pennsylvania Bulletin* on November 29, 2003. The final Chapter 175 amendments

and relevant additional sections of the existing Chapter 175 regulations are included in Appendix B. The purpose of the rulemaking was to ensure that specified classes of vehicles registered in the Commonwealth are equipped with appropriate exhaust emission control systems as required by state and Federal law. The rulemaking provides for an inclusion in the safety inspection regimen of a visual inspection on vehicles registered in the counties not subject to emissions testing, beginning December 1, 2003. This inspection determines whether the required emissions control equipment has been removed, disconnected or is the wrong type for the certified vehicle configuration. Even though this regulation is part of the Commonwealth's safety inspection program and not the emissions program, given that the visual inspection to take place on non-OBD covered vehicles in the I/M counties is identical to the visual inspection which will occur in the non-I/M counties, the Commonwealth believes it is appropriate to take credit for the emissions reductions associated with the program.

The Commonwealth will, hereinafter, refer to this aspect of the safety inspection program as the "42 Non-I/M County Program."

The Commonwealth will submit a separate SIP revision to incorporate OBD testing for MY 1996 and newer light duty cars and trucks into the existing I/M program in the Philadelphia and Pittsburgh regions of the Commonwealth. The Philadelphia region comprises Bucks, Chester, Delaware, Montgomery and Philadelphia counties. The Pittsburgh region comprises Allegheny, Beaver, Washington and Westmoreland counties. The Commonwealth's public comment period for this proposed SIP revision opened on November 8, 2003 [33 Pa. B. 5574] and will close on December 12, 2003.

PENNSYLVANIA I/M PROGRAM CHANGES

§ 51.350 **Applicability**

This revision applies to the South Central Region, the Northern Region, and all 42 Non-I/M counties. Berks, Dauphin, Cumberland, Lancaster, Lebanon, Lehigh, Northampton and York counties constitute the South Central Region, Blair, Cambria, Centre, Erie, Lackawanna, Luzerne, Lycoming and Mercer counties constitute the Northern Region, the 42 Non-I/M counties are the counties of Adams, Armstrong, Bedford, Bradford, Butler, Cameron, Carbon, Clarion, Clearfield, Clinton, Columbia, Crawford, Elk, Fayette, Forest, Franklin, Fulton, Greene, Huntingdon, Indiana, Jefferson, Juniata, Lawrence, McKean, Mifflin, Monroe, Montour, Northumberland, Perry, Pike, Potter, Schuylkill, Snyder, Somerset, Sullivan, Susquehanna, Tioga, Union, Venango, Warren, Wayne and Wyoming.

The Department of Transportation has the authority under 75 Pa. C.S. §§ 4103, 4107, 4702 and 6103 to provide for inclusion in the safety inspection regulation of a visual inspection for the presence of the required equipment in vehicles registered in counties not subject to emissions testing.

Regulations implementing the I/M program are codified at 67 Pa. Code, Chapter 177 (Enhanced Emission Inspection Program). Amendments to these regulations add provisions for testing OBD systems in MY 1996 and newer vehicles, gas cap testing and visual inspection and are included herein as Appendix A. Portions of Chapter 177 that do not apply to the South Central or Northern Regions or the 42 Non-I/M County Program have been redacted from Appendix A.

The rulemaking for the 42 Non-I/M County Program (67 Pa. Code, Chapter 175 - Vehicle Equipment and Inspection) is included herein in Appendix B. The final-form regulations were approved by the Independent Regulatory Review Commission on November 20, 2003 and finalized through publication in the *Pennsylvania Bulletin* on November 29, 2003.

§ 51.351 Enhanced I/M Performance Standard

The I/M tests that will be conducted in the South Central Region beginning in December 2003 are specified in Appendix A, §177.51(f)(5). The I/M tests that will be conducted in the Northern Region beginning in January 2004 are specified in Appendix A, § 177.51(f)(6).

The Commonwealth is using MOBILE6 for performance standard modeling. Appendix C contains the applicable performance standard modeling, including county-by-county results for the years 2005 and 2007.

Pursuant to Section 4706(b.1)(2) of the Vehicle Code, 75 Pa. C.S. § 4706(b.1)(2), the Secretary of the Department of Transportation is required to certify, at least 60 days prior to implementation of any I/M program, by notice in the *Pennsylvania Bulletin* that an I/M program will commence. A copy of the required notice is included with this SIP revision as Appendix D.

§ 51.352 Basic I/M Performance Standard

Not Applicable.

§ 51.353 Network Type and Program Evaluation

The I/M network for the South Central and Northern Regions will be identical to the network described in the 1996 I/M SIP.

The 42 Non-I/M County Program will operate under the Commonwealth's safety inspection program and will be conducted by the network of privately owned official safety inspection stations. Pennsylvania has operated a safety inspection program for more than 70 years. Each vehicle operated in the Commonwealth must be inspected before the expiration of the previous year's inspection. As part of the safety inspection, motorists must provide a copy of the current year's motor vehicle registration along with a certificate of insurance. Certified inspectors perform safety inspections. Certified facilities also generally can and will provide repair services, if necessary, for the vehicle to pass the safety inspection. The safety inspection program has been enforced through a cooperative effort between the Department of Transportation, the Pennsylvania State Police, local police departments and, in I/M counties, the Department of Transportation's contract I/M Program Manager. Motorists, certified inspectors, repair technicians and enforcement personnel are familiar with the operation of the program. The safety inspection program is a decentralized system operated by existing Official Inspection Stations certified by the Department of Transportation.

The legal authority to operate a safety inspection program is found at 75 Pa. C.S. §§ 4103, 4107, 4702, and 6103. Implementing regulations are found at 67 Pa. Code Chapter 175. Pertinent provisions are included in Appendix B.

Program evaluation of the safety inspection program is accomplished through a quality assurance program that evaluates and monitors individual station and inspection

personnel performance. Inspection stations are evaluated on an annual basis and inconsistencies in the application of program rules, regulations, procedures or policies are reported to the Department of Transportation for review and appropriate action, which may include a suspension of inspection privileges. All stations are subject to a thorough audit of their inspection records, examination of required tools and equipment, confirmation of required inspection personnel, training and certification and random re-inspection of any vehicle on the station's premises that has undergone a recent inspection. All quality assurance staff are certified inspectors and are well trained in program protocol and requirements.

Based on any violations, problems and inconsistencies discovered as a result of the above-mentioned quality assurance efforts, problem areas are identified and educational efforts are focused to correct deficiencies in addition to the application of appropriate sanctions. See, 67 Pa. Code § 175.51.

§ 51.354 Adequate Tools and Resources

Funding: The Department of Transportation's Safety Administration is sufficiently funded to implement the program changes described in this SIP revision. With respect to the I/M program, \$301,950 of the Safety Administration funding is dedicated to stickers and \$206,731 is dedicated to staff for FY 2004; for FY 2005, the Commonwealth budgeted \$361,350 for stickers and \$206,731 to cover staff expenses. Safety Administration is funded through the Motor License Fund which receives its revenue from gasoline taxes and motor vehicle license fees. As a point of information, the I/M Program Manager charges a test fee which covers its costs of program

administration. The Department of Transportation does not expect an appreciable budget impact as a result of the 42 Non-I/M County Program.

Personnel resources: The Commonwealth's staffing plan for implementing OBD continues to be comprised of both internal Department of Transportation personnel and external personnel, through the I/M Program Manager. The Vehicle Inspection Division of the Bureau of Motor Vehicles, in Safety Administration, oversees the I/M program and will continue to do so. Moreover, the Department of Transportation contracted with MCI/WORLDCOM Communications, Inc. (MCI) for MCI to be the I/M Program Manager. Pursuant to the contract executed between the parties, MCI manages the overt and covert auditing, data analysis and other functions. The I/M Program Manager Contract supplements, reflecting changes since the 1996 I/M SIP, are included with this SIP revision as Appendix E.

As in the I/M Program, the Motor License Fund, described in detail in the 1996 I/M SIP, funds the Commonwealth's associated costs for personnel, program administration, program enforcement, purchase of necessary equipment and any other requirements necessary for the safety inspection program. Under the current budget structure, the safety inspection program has been funded successfully for more than 70 years. The Commonwealth does not believe that the changes in the 42 Non-I/M County Program will have a significant impact on the long-standing budget.

The Department of Transportation's Vehicle Inspection Division oversees the safety inspection program. The description of the staff is contained in the previously approved I/M SIP. In addition, pursuant to the contract, the I/M Program Manager provides oversight for the safety inspection program in the 25 I/M Counties. The I/M

Program Manager performs safety audits of each safety inspection station at least once per year. As was described in the June 27, 1996 SIP submittal, the Commonwealth relies on Department of Transportation personnel, the Pennsylvania State Police and local police departments to enforce both the I/M and safety inspection programs. Police officers are trained to look for expired safety inspection stickers both during routine stops of motorists and on moving vehicles. When violations are discovered, police officers are authorized to issue a citation to the motorist for the violation. Sections 4703 and 4704 of the Vehicle Code authorize police officers to stop any vehicle suspected of being out of compliance with inspection requirements. The process described in the 1996 I/M SIP will continue for the 42 Non-I/M County Program. In addition to these efforts, Department of Transportation personnel are trained to investigate consumer complaints, conduct re-inspections to determine if proper safety inspections were conducted, act as a “referee” between vehicle owners and inspection station personnel and look for inconsistencies in inspection records that may indicate violations of Department of Transportation regulations.

§ 51.355 Test Frequency and Convenience

The test frequency and elements of motorist convenience for the emissions portion will be the same as contained in the 1996 I/M SIP, i.e., annually.

Safety inspections are also conducted on an annual basis.

Elements of convenience remain as described in the 1996 I/M SIP.

§ 51.356 Vehicle Coverage

The I/M program covers approximately 6,498,000 vehicles. There are approximately 1,342,000 registered subject vehicles in the Pittsburgh Region; 2,283,000 in the Philadelphia Region; 1,857,000 in the South Central Region; and 1,016,000 in the Northern Region. Other than adding an exemption for specially constructed vehicles, the definition of subject vehicles has not changed from the 1996 I/M SIP.

There are currently 149 specially constructed vehicles registered in the Pittsburgh Region; 137 in the Philadelphia Region; 169 in the South Central Region; and 122 in the Northern Region, for a total of 577 vehicles, approximately .00009 percent of the vehicles registered in the I/M counties. How vehicles will be identified has not changed from the 1996 I/M SIP.

For purposes of the 42 Non-I/M County Program, “subject vehicles” includes “passenger cars” and “light trucks,” regardless of model year, as those terms are defined at 67 Pa. Code § 175.2 and Section 102 of the Vehicle Code, 75 Pa. C.S. § 102. A “passenger car” is defined in the Vehicle Code as “[a] motor vehicle, except a motorcycle, designed primarily for the transportation of persons and designed for carrying no more than 15 passengers, including the driver, and primarily used for the transportation of persons. The term includes motor vehicles which are designed with seats that may be readily removed and reinstalled, but does not include such vehicles if used primarily for the transportation of property.” The safety inspection regulations define “light trucks” as “[a] truck having a registered gross weight of 11,000 pounds or less.”

In addition to the existing safety inspection exemptions currently contained in 67 Pa Code §175.4, revisions to Chapter 175, included in Appendix B, allow exemption for those vehicles registered as “collectible” or “classic” vehicles as defined in section 177.2 [67 Pa. Code §177.2] and section 102 of the Vehicle Code [75 Pa. C.S. §102]. These exemptions echo those that already exist in the I/M program. The Department of Transportation estimates that about 14,000 collectible and classic vehicles are registered in the 42-county area. In total, the 42-county area has approximately 1.9 million registered cars. The MOBILE6 modeling reflecting the minimal impact of this exemption in the 42-county program is included as an attachment in Appendix C-5.

§ 51.357 Test Procedures and Standards

The OBD test procedures are described at various sections of the amended regulations:

Section 177.3 (relating to definitions) adds definitions of “Diagnostic Trouble Code (DTC),” “OBD Data Link Connector (DLC),” “OBD-I/M Check,” “Malfunction Indicator Light (MIL),” “Readiness Code” and “Scanner or Scan Tool.” In addition, the definitions of “OBD (Onboard Diagnostics)” and “Emission Inspection” were amended to better reflect the changes in the Commonwealth’s program.

Section 177.201 was amended to include “OBD-I/M Checks.” Section 177.203(b) was amended to establish the procedure for conducting an OBD-I/M check.

- Section 177.204(2) was added to include the basis for an OBD-I/M check failure. This section also includes a provision that during the first cycle of emissions inspections employing the OBD-I/M check, the inability to locate or access a vehicle’s DLC shall not be a basis for failure provided that the

MIL illuminates at the KOEO (Key On Engine Off) position and does not illuminate continually or flash while the engine is running.

- Section 177.203(c) was added to establish the procedure for conducting a gas cap test. Commonwealth-approved equipment will rely on the approved equipment manufacturer's instructions on how to operate the test equipment.
- Gas cap check language was removed from Appendix B of Chapter 177 because the necessary verbiage was added in new §177.204(3).
- New section 177.203(d) specifies that an inspector shall visually check, in non-OBD equipped vehicles, as applicable, for the presence of the following:
 - a. catalytic converter,
 - b. exhaust gas recirculation (EGR) valve,
 - c. positive crankcase ventilation (PCV) valve,
 - d. fuel inlet restrictor,
 - e. air pump, and
 - f. evaporative control system components.

In addition, the inspector will determine if the above components are properly connected and appear to be the correct type for the certified configuration.

- New section 177.203(e) replaces language deleted from Appendix B of Chapter 177 relating to adoption of subsequent, new EPA test procedures.
- New sections 177.204(3) and 177.204(4) establish standards for failure for both the gas cap check and visual inspection.
- New section 177.204(5) adds provisions for adoption of new EPA bases for failure and procedures.

The safety inspection visual inspection procedure for the 42 Non-I/M County Program is included at Appendix B, § 175.80.

§ 51.358 Test Equipment

The written technical specifications for OBD equipment are attached as Appendix F, “Pennsylvania Department of Transportation Onboard Diagnostics Test Procedure Final Stand Alone Equipment and Software Specifications.” Federal regulations found at 40 CFR § 51.357 require OBD equipment to function as specified in 40 CFR § 85.2231. The “Pennsylvania Department of Transportation Onboard Diagnostics Test Procedure Final Stand Alone Equipment and Software Specifications” at Appendix F meet these requirements. The amended regulations, at 67 Pa. Code § 177.406 (Tools and equipment), include OBD scanners or scan tools in the list of equipment required at an official emission inspection station. Listed at 67 Pa. Code § 177.501 (Equipment approval procedures) are requirements to be met for approval of equipment to be used in the OBD-I/M check. The Commonwealth has also separately developed specifications for the gas cap and visual inspection, “Pennsylvania Department of Transportation Visual Test Procedure Final Stand Alone Equipment and Software Specifications,” attached hereto as Appendix G. This equipment will be used in the Northern Region only.

The Vehicle Inspection Report (VIR) has been modified to reflect OBD test results. Sample VIRs are attached to the SIP as Appendix H. This format will be used in both the South Central and Northern Regions. The OBD-I/M check report details the readiness results and diagnostic trouble codes revealed in the test, as well as providing information on any applicable recall for the vehicle and the availability of warranty coverage.

There is no additional test equipment needed for the 42 Non-I/M County Program.

§ 51.359 Quality Control

For the South Central and Northern Regions, there are no quality control changes from the 1996 I/M SIP.

For the 42 Non-I/M County Program, the Department of Transportation will continue to use the quality control procedures used in the safety inspection program. Included with the 1996 I/M SIP are the detailed stringency measures for document security employed by the Department of Transportation to prevent fraud, counterfeiting and abuse. Audit procedures for the 42 Non-I/M County Program are described more fully herein at §51.362 (Motorist Compliance Enforcement Program Oversight) and §51.363 (Quality Assurance).

§ 51.360 Waivers and Compliance via Diagnostic Inspection

There are minor changes to section 177.281, including a change to ensure that vehicle owners who render their OBD equipment inaccessible may not include the repair expenses in their calculation of the amount spent on qualifying repairs.

No waivers are allowed or provided for in the safety inspection program.

§ 51.361 Motorist Compliance Enforcement

There are no motorist compliance enforcement changes from the 1996 I/M SIP for the I/M program.

Enforcement of the 42 Non-I/M County Program is described at § 51.354, Adequate Tools and Resources.

§ 51.362 Motorist Compliance Enforcement Program Oversight

There are no changes from the 1996 I/M SIP with respect to the I/M program.

With respect to the 42 Non-I/M County Program, motorist compliance will continue to be accomplished through the use of inspection stickers conspicuously displayed on the windshield of a subject vehicle. In addition to enforcement by the law enforcement community, the Vehicle Inspection Division's Quality Assurance staff will complement these efforts through random checks of vehicles in the possession of an inspection station. Specifically, vehicles on the premises of an official inspection station that have undergone a safety inspection in the preceding two days may be re-inspected by a Quality Assurance Officer to ensure the vehicle is in passing condition and should display a valid safety inspection sticker. Vehicles found to be non-compliant will have the safety inspection sticker removed and the inspecting station and personnel may be sanctioned through a suspension of their inspection privileges.

§ 51.363 Quality Assurance

There are no quality assurance changes to the 1996 I/M SIP with respect to the I/M program.

The Commonwealth's Quality Assurance program is comprised of both internal Department of Transportation personnel and external personnel. The Department of Transportation's Vehicle Inspection Division oversees the 42 Non-I/M County Program. The description of the staff is contained in the 1996 I/M SIP. In addition, through the

contract with the I/M Program Manager, the contractor provides oversight for the safety inspection program in the 25 I/M counties. Both Department of Transportation staff and the Contractor perform, at least once per year, safety audits of each safety inspection station in accordance with established protocol for the audit of stations performing vehicle safety inspections pursuant to 67 Pa. Code, Chapter 175. As part of the audit of the 42 Non-I/M County Program, a vehicle on the station's premises which has a safety inspection sticker indicating that it has passed a safety inspection administered by the station within the immediately preceding two business days shall be re-inspected by station personnel in the presence of the personnel performing the audit to determine whether the vehicle properly passed the anti-tampering program/visual inspection (ATP) portion of the safety inspection. In the event it is determined that a vehicle improperly passed the ATP portion, in addition to any other sanction available by law, if the station remains in operation, it shall be revisited unannounced at least once within the three months following the initial audit and again within the next three month period to ascertain compliance with ATP inspection requirements. If there is no vehicle available for re-inspection at the time of any audit, the station shall be revisited unannounced within 30 days. The Commonwealth also will implement a records audit that includes the calculation of failure rates for ATP inspection components for each inspection station. The Commonwealth shall compare these failure rates to rates in areas conducting both ATP and I/M inspections and, as necessary, will respond to significant differences in failure rates with adjustments to the audit process and/or training, as appropriate.

§ 51.364 Enforcement Against Contractors, Stations and Inspectors

The Commonwealth modified the “penalty” definition, at 67 Pa. Code § 177.601, for penalties imposed under the auspices of the I/M Program, to incorporate definitions of “faulty inspection,” “improper inspection,” “careless record keeping,” “fraudulent record keeping” and “improper record keeping.” The Commonwealth modified the schedule of penalties contained in 67 Pa. Code §177.602 to eliminate any reference to a basic emission inspection station and to modify the penalties which can be imposed on an emission inspection station as follows (only the changes are shown):

<i>Type of Violation</i>	<i>Duration of Suspension</i>		
	<i>1st Offense</i>	<i>2nd Offense</i>	<i>3rd and Subsequent Offenses</i>
Category 2 (IMPROPER ACTIVITIES)			
(v) Inspecting more subject vehicles per hour per emission inspection inspector than permitted by Section 177.408(g)	3 months	6 months	1 year
(vi) Failure to produce records upon demand by Department quality assurance officer or other authorized Commonwealth representative or agent	3 months or until produced, whichever is greater	6 months or until produced, whichever is greater	1 year or until produced, whichever is greater
(viii) Improper record keeping	2 months	6 months	1 year
(ix) Improper inspection	Warning	2 months and \$250 fine	6 months and \$500 fine

	<i>Duration of Suspension</i>		
<i>Type of Violation</i>	<i>1st Offense</i>	<i>2nd Offense</i>	<i>3rd and Subsequent Offenses</i>
(x) Requiring or indicating unnecessary repairs for purpose of inspection	3 months	6 months	1 year
(xiii) Failure to verify registration or emission inspecting a vehicle with an expired registration	2 months	4 months	6 months
(xiv) Failure to affix certificate of inspection immediately upon successful completion of the inspection	2 months	4 months	6 months
Category 3 (Careless Activities)			
(xv) Inspection by emission inspector with suspended, revoked, cancelled, expired or recalled vehicle operating privilege	2 months	4 months	6 months
(xvi) Inspection by emission inspector with expired inspector certification	Warning	4 months	6 months
(4) Category 4 (Negligent)			
(xxiii) Failure to report discontinuance of business	1 year	2 years	Permanent

	<i>Duration of Suspension</i>		
<i>Type of Violation</i>	<i>1st Offense</i>	<i>2nd Offense</i>	<i>3rd and Subsequent Offenses</i>
(xxv) Failure to make emission inspection test printout available to customer	Warning	Warning and \$100 fine	1 month

The Commonwealth modified the schedule of penalties for emission inspectors at 67 Pa. Code §177.603 to eliminate all references to basic emission inspection inspectors and added the following provisions:

	<i>Duration of Suspension</i>		
<i>Type of Violation</i>	<i>1st Offense</i>	<i>2nd Offense</i>	<i>3rd and Subsequent Offenses</i>
<i>Category 1 (Fraudulent Activities)</i>			
(i) Issuance or possession of altered, forged, stolen or counterfeit certificate of emission inspection	1 year	Permanent	
<i>Category 2 (Improper Activities)</i>			
(vii) Inspection by uncertified inspector	3 months and \$100 fine	6 months and \$500 fine	1 year and \$1,000 fine
(ix) Improper inspection	Warning	2 months and \$250 fine	6 months and \$500 fine
(x) Requiring or indicating repairs unnecessary for purpose of passing inspection	3 months	6 months	1 year

	<i>Duration of Suspension</i>		
<i>Type of Violation</i>	<i>1st Offense</i>	<i>2nd Offense</i>	<i>3rd and Subsequent Offenses</i>
(xi) Misstatement of fact	1 month	3 months	1 year
(xiii) Failure to verify registration or emission inspecting a vehicle with an expired registration	2 months	4 months	6 months
(xiv) Failure to affix certificate of inspection immediately upon successful completion of the inspection	2 months	4 months	6 months
<i>Category 3 (Careless Activities)</i>			
(xvi) Inspection by emission inspector with suspended, revoked, cancelled, expired or recalled vehicle operating privilege	2 months	4 months	6 months
(xvii) Inspection by emission inspector with expired inspector certification	Warning	4 months	6 months
(xviii) Improper use of emission inspector certification	Warning	2 months and \$250 fine	6 months and \$500 fine
(xix) Improper security	Warning	2 months	4 months

	<i>Duration of Suspension</i>		
<i>Type of Violation</i>	<i>1st Offense</i>	<i>2nd Offense</i>	<i>3rd and Subsequent Offenses</i>
of certificate of emission inspection			

These changes were made in response to *Ruffo v. Department of Transportation*, 823 A.2d 219 (Pa. Commw. 2003), in which the Commonwealth Court disagreed with the Department of Transportation’s application of the penalty provisions, concluding that the language in the regulation was not as precise as it needed to be to support an enforcement action. The language has been modified to strengthen the Department of Transportation’s enforcement actions.

There is a similar penalty structure in place for the safety inspection program. It can be found at 67 Pa. Code § 175.51 included in Appendix B.

§ 51.365 Data Collection and § 51.366 Data Analysis and Reporting

No data collection, analysis and reporting changes from 1996 I/M SIP were made with respect to the I/M Program, except where data is not available due to the nature of the OBD system (i.e. emissions scores and calibration gas concentrations). Results of the OBD-I/M check will be expressed as a pass or fail along with the diagnostic trouble codes revealed (where applicable). In addition to what is already collected, the following data will be collected by the I/M Program Manager: Passing the OBD check; Failing the OBD check; Failing the OBD check and failing the tailpipe test (if applicable); Passing the OBD check and failing the I/M gas cap evaporative system test (if applicable); Failing the OBD check and passing the I/M gas cap evaporative system test (if applicable);

Passing both the OBD check and I/M gas cap evaporative system test (if applicable);
Failing both the OBD check and I/M gas cap evaporative system test (if applicable);
MIL is commanded on and no codes are stored; MIL is not commanded on and codes are stored; MIL is commanded on and codes are stored; MIL is not commanded on and codes are not stored; Readiness status indicates that the evaluation is not complete for any module supported by the OBD systems. These collection requirements are located in the OBD test specifications.

With respect to the 42 Non-I/M County Program, the Commonwealth collects a statistical sample of passenger car/light truck safety inspection data from each county and uses that information to identify average inspection fees, average repair fees, failure rates, miles driven, etc.

§ 51.367 Inspector Training and Licensing or Certification

The training for the South Central Region mirrors the training described for the Pittsburgh and Philadelphia Regions, as detailed in the 1996 I/M SIP. The only change to that training is that an additional four hours have been added to the course content to discuss OBD technology and testing. In 2001, this four-hour module was incorporated into the re-certification training all I/M inspectors are required to complete every two years. In this way, the Commonwealth ensured that the existing population of certified inspectors obtained the additional OBD training module and would not require additional training prior to implementation of the OBD I/M check.

The training for the Northern Region will consist of a web-based or hard-copy self-study training program. This training provides students with the information necessary to inspect subject vehicles, to conduct gas cap testing and to determine if a

subject vehicle is properly equipped with the required emission components. This training covers the air pollution problem, its causes and effects; the purpose, function and goal of the visual inspection and gas cap test; procedures and the rationale for their design; emission control device function, configuration and inspection; test equipment operation, calibration (with the exception of test procedures which either do not require the use of special equipment or which rely upon a vehicle's OBD system); quality control procedures and their purpose; public relations; and safety and health issues related to the inspection process. This certification, received only after the inspector passes the required final test, is only valid for conducting emission tests on vehicles required to undergo a visual and gas cap test and may not be utilized to conduct OBD, ASM, or idle testing.

Although the web-based training is a self-study course (which is also available in printed form), testing is proctored through area vocational-technical schools and community colleges which are contracted to administer testing for the Department of Transportation. Students must show proof of their identity in order to participate in testing and all test data is electronically forwarded to the Department of Transportation's training contractor for grading and processing of certification credentials.

Safety inspection training includes instruction in basic safety inspection program goals, regulations and procedures. The course is administered through vocational and technical schools and community colleges which are contracted with the Department of Transportation. The Department trains and certifies instructors to deliver the course material and tests. Safety inspection certification for passenger cars and light duty trucks consists of a 12-hour classroom course, a written baseline test (to evaluate overall knowledge of program regulations and requirements), a category test (to evaluate specific

knowledge relative to the inspection of these vehicles) and a tactile test in which the student must perform a safety inspection on a vehicle in front of a certified instructor. These vehicles vary in make, model, age and condition so that students must demonstrate that they can properly complete the inspection procedure, identify any items that are not in passing condition and properly utilize all tools and equipment necessary to complete vehicle inspections. Students wishing to perform safety inspections on other classes of vehicles (medium/heavy trucks, buses, trailers, motorcycles, etc.) must likewise prove their proficiency through a combination of classroom instruction, written tests and hands-on demonstrations.

§ 51.368 Public Information and Consumer Protection

The Public Information and Consumer Protection components of the 1996 I/M SIP are applicable to the South Central and Northern Regions. The Commonwealth has discontinued using a public information and education vendor under a separate contract with the Commonwealth for the public information component. Public information and education are handled through the Departments of Transportation and Environmental Protection directly as well as through existing contracts with Michael Baker Jr., Inc. and the I/M Program Manager contract. Otherwise, functions largely identical to those describe in the 1996 I/M SIP are now performed by Commonwealth personnel. The only change from the topics included in the 1996 I/M SIP is that the Commonwealth will inform the public on the specific topic of OBD as well as all of the other required topics. The Commonwealth operates a program website which also includes the ability for the public to get specific answers to questions. The website address is www.drivecleanpa.state.pa.us .

Safety inspection information can also be found on the Department of Transportation's website at www.dot.state.pa.us .

§ 51.369 Improving Repair Effectiveness

There are no changes in this section from the 1996 I/M SIP.

§ 51.370 Compliance with Recall Notices

There are no changes in this section from the 1996 I/M SIP for the I/M Program.

§ 51.371 On-road Testing

There are no on-road testing changes from the 1996 I/M SIP for the I/M Program.

LIST OF APPENDICES

Appendix A – Final 67 Pa. Code Chapter 177 (Redacted)

Appendix B – 67 Pa. Code Chapter 175

B-1 – Final Chapter 175 Amendments

B-2 –Existing Chapter 175 Provisions (Redacted)

Appendix C – MOBILE6 Performance Standard Modeling

C-1 - 2005 and 2007 16 County Summaries

C-2 - MOBILE6 Input Parameter Summary

C-3 - 2005 and 2007 MOBILE6 Input Files

C-4 – 2005 and 2007 MOBILE6 Output Files

**C-5 - 2005 and 2007 16 County Emissions Factor Analysis and
42 County Emissions Reduction Estimates**

**C-6 - 16 County Registered Vehicle Distributions by Model
Year and Vehicle Class**

C-7 - MOBILE6: An Explanation of Methodology

**Appendix D - Department of Transportation Certification of the I/M Program
for Designated Areas**

Appendix E - I/M Program Manager Contract Supplements

E-1 – February 2002 Contract Supplement

E-2 – September 2002 Contract Supplement

**Appendix F - OBD Test Procedure Final Stand Alone Equipment and
Software Specifications**

**Appendix G - Visual Test Procedure Final Stand Alone Equipment and
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Appendix H - Sample Vehicle Emissions Inspection Reports (VIR)

**Appendix I – *Pennsylvania Bulletin* Notice and Newspaper Notification
Invoices**

Appendix J – Comment and Response Document