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Comment

Is Pennsylvania's Vehicle Emission Inspection and Maintenance Program Shifting with the Wind?

Michael J. Imbornone*

I. Introduction

On April 2, 2007 the U.S. Supreme Court issued an opinion in *Massachusetts v. EPA*¹ holding that the Clean Air Act does give the U.S. Environmental Protection Agency (EPA) the authority to regulate carbon dioxide (CO2) and other greenhouse gas (GHG) emissions from new motor vehicles, contrary to EPA's previous assertions.² While this case helped to focus the nation on global warming and the reduction of automobile emissions, the individual states have wrestled with the issue of reducing automobile emissions for quite some time. Not only have states considered pressuring the auto industry to reduce the emissions

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^{1.} Massachusetts v. EPA, No. 05-1120 (U.S. Apr. 2, 2007).

^{2.} National Conference of State Legislatures: Supreme Court issues opinion in first Global Warming Case, (Apr. 2007), http://www.ncsl.org/programs/environ/air/MAvsEPA07.htm.

from new autos, but also states have found ways to inspect older autos for emissions problems that could be solved with regular maintenance.

Discussions in the Pennsylvania House of Representatives within the past two years have centered on a proposal to eliminate automobile emissions inspections that are currently in place for select counties across the commonwealth.³ One lawmaker, Rep. Rick Geist of Altoona, has asserted that the emissions inspections were no longer necessary due to the improved quality of the air and improvements made on new automobiles.⁴ Scrapping the emissions tests was on a list of House Republican legislative priorities released by Speaker John Perzel and Majority Leader Sam Smith for the fall of 2005.⁵

In response, State Transportation Department spokesman Rich Kirkpatrick stated that ending the emissions program could cost the state \$1 billion in federal highway aid, which could delay road construction and highway safety projects. In addition, House Bill 2141, which was under consideration in early November 2005, would prohibit the Pennsylvania Environmental Quality Board (EQB) from adopting the California Low Emission Vehicle (Cal-LEV) program. Specifically, the legislators supporting this bill expressed concern that mandating that new vehicles meet California standards for emissions would place an economic burden on consumers.

Advocates for the Department of Environmental Protection, the Department of Transportation and the House of Representatives disagreed over whether either of these measures would put Pennsylvania in violation of the Clean Air Act. Violation of the CAA would allow the EPA to withhold funds earmarked for Pennsylvania. Republican lawmakers such as Mr. Geist seemed to be most concerned over whether elected officials in the state legislature set inspections and emissions policy or whether a federal court has that authority. In May of 2003, Gov. Ed Rendell's administration reached an agreement in federal court in Philadelphia that further committed the state to expanding emissions

^{3.} Tom Barnes, GOP Bill Eliminates Auto Emissions Inspections: Republicans Say Checks Are No Longer Needed, PITTSBURGH POST GAZETTE, Oct. 26, 2005, http://www.post-gazette.com/pg/05299/595013.stm.

^{4.} *Id*.

^{5.} Id.

^{6.} *Id*.

^{7.} DEP DAILY UPDATE ... PA DEPARTMENT OF ENVIRONMENTAL PROTECTION NEWSLETTER, VEHICLE EMISSION STANDARDS SUBJECT OF LETTERS (Nov. 3, 2005), http://www.depweb.state.pa.us/news/cwp/view.asp?a=3&q=479923.

^{8.} Id.

^{9.} Tom Barnes, GOP Bill Eliminates Auto Emissions Inspections: Republicans Say Checks Are No Longer Needed, PITTSBURGH POST GAZETTE, Oct. 26, 2005, http://www.post-gazette.com/pg/05299/595013.stm.

inspections as required by the U.S. Environmental Protection Agency.¹⁰

The thesis of this comment is three-fold. First, Pennsylvania's legislature should not repeal the program currently in place that mandates inspection and maintenance of vehicles owned by residents of counties in which the air does not meet pollution standards. To end the program or scale it back would allow the EPA to withhold monetary funds earmarked for Pennsylvania. Second, the emissions program should be improved and promoted by taking into consideration issues fundamental fairness for low-income residents who disproportionately affected by the current emissions inspection program. Low income auto owners should be encouraged to enter the program by receiving reduced rates for inspection based upon income level, or in the alternative, there should be a public subsidy program to offset the expense of the program for the most in need. Finally, all drivers should receive economic incentives such as gasoline credits, free parking passes or tax reductions for completing the inspection.

This comment will discuss Pennsylvania's recent history of emissions testing, including the arguments for and against testing, in four sections. Section I discusses why Pennsylvania had to conform to the Federal Environmental Protection Agency's plan for reducing air pollution. Section II discusses why Pennsylvania has chosen only select counties for emissions testing. Section III discusses some of the arguments against the Inspection and Maintenance program, including whether adopting California's standards for new cars will make the current emissions testing unnecessary. Section IV will then predict Pennsylvania's future need for emissions testing.

II. Emissions Testing and Vehicle Standards: A Two-Pronged Plan

In the early 1990's a plan for centralized emissions testing was nearly implemented in Pennsylvania where automobile owners would bring their vehicles to a centralized location that specialized in emissions inspections. This plan met with so much opposition from Pennsylvania residents that the plan was cancelled in 1994 before having the opportunity to be implemented. The Pennsylvania AAA Federation, with 2.6 million motorist members, had opposed the centralized testing program, saying it would make motorists "ping-pong" between the test station and repair garage, require repairs which would be costly and

^{10.} Id.

^{11.} PA DEPT. OF ENVTL. PROT. HOMEPAGE, RIDGE: NO DELAYS ON VEHICLE EMISSIONS INSPECTION PROGRAM, (July 25, 1997), http://www.dep.state.pa.us/dep/deputate/polycomm/update/07-25-97/072597u8.htm.

unnecessary, and result in long waiting lines.¹²

In 2002, Citizens for Pennsylvania's Future and the Clean Air Council initiated two lawsuits over the Commonwealth's slow implementation of the emissions inspections procedures mandated by the U.S. Environmental Protection Agency.¹³ Those lawsuits resulted in the current emissions testing program which relies on the "on-board diagnostic" systems present in cars manufactured since 1996.¹⁴ This technology allows a technician to attach a cable to a car's on-board computer and download information that helps the technician diagnose common engine problems that lead to increased pollution.¹⁵ Emissions inspections for subject vehicles are required once a year in conjunction with the annual safety inspection. Any participating private garage or dealer certified to perform emissions inspections can do these inspections.¹⁶ The fees for emissions and safety inspections are market driven, so consumers can shop around for the lowest price.¹⁷

If a vehicle does not pass the emissions inspection, the vehicle owner must make emissions-related repairs. After the repairs, the vehicle can be re-inspected for no cost at the station that initially

^{12.} PENNDOT DRIVE CLEAN PENNSYLVANIA HOMEPAGE, AAA FEDERATION PRAISES RIDGE ON AUTO INSPECTION PLAN, (1995), http://www.drivecleanpa.state.pa.us/drivecleanpa/archive/praises.htm.

^{13.} PENNDOT DRIVE CLEAN PENNSYLVANIA HOMEPAGE, FREQUENTLY ASKED QUESTIONS: EMISSIONS AND SAFETY INSPECTION PROGRAM CHANGES, (2003), http://www.drivecleanpa.state.pa.us/drivecleanpa/changes/faq_station.pdf (citing to Citizens For Pennsylvania's Future, v. Mallory, 2002 U.S. Dist. Lexis 24406, (E.D. Pa. 2002), and Clean Air Council v. Mallory, 226 F. Supp.2d 705 (E.D. Pa. 2002)).

^{14.} *Id*.

^{15.} *Id*.

^{16.} *Id*.

^{17.} Id. Several different emissions inspections could be implemented depending upon the owner's particular county of residence in Pennsylvania. Each region's air quality determines which tests or combinations of tests are required in that region. The first test is the On-Board Diagnostics Check. The on-board system is comprised of a computer with diagnostic software and sensors that monitor the ignition, fuel metering and emissions systems while the vehicle is in use. When the system detects a problem, a diagnostic trouble code is stored in the vehicle's computer. A certified technician downloads the information to a computer to assess how well the vehicle is functioning, allowing the technician to properly diagnose and repair any problems.

The tailpipe test uses a tailpipe probe to collect a sample of the exhaust and an emissions analyzer to measure pollutants while the engine is idling. The gas cap test is a functional check that tests whether harmful evaporative emissions are escaping from the gas tank into the atmosphere. The technician removes the gas cap and inserts it into a device that applies pressure and determines whether fumes are escaping. The Visual Anti-Tampering Check is a visual inspection for the presence of tampering to the catalytic converter, exhaust gas recirculation valve, positive crankcase ventilation valve, fuel inlet restrictor, air pump and the evaporative control system components such as vapor canisters and lines.

conducted the inspection.¹⁸ If the vehicle still does not pass the inspection, in most cases the owner can get a one-year waiver for additional repairs if he has spent a minimum of \$150 on emissionsrelated repairs.19

In 1997, Governor Tom Ridge stated "the debate is over" about whether to upgrade Pennsylvania's auto emissions inspection program, because the decentralized approach that had been developed solved many of the problems that led to the cancellation of Pennsylvania's centralized testing program in 1994.20 Ridge believed the decentralized program was a more convenient method of reducing emissions in Pennsylvania's urban areas.21 Stating "the debate was over" may have been wishful thinking on Ridge's part, but his reference to the inconvenience of a centralized testing program proved to be correct. In fact, the state of New Jersey's experience with its program in the late 1990's is evidence in support of Ridge's position. In December of 1999, New Jersey started a \$400 million vehicle emissions testing program that featured centralized testing.²² Almost immediately, New Jersey's centralized testing became infamous for long lines and customer wait times that sometimes exceeded four hours.²³

In the year 2000, the emissions program had not yet taken effect in eight Pennsylvania counties—Blair, Cambria, Centre, Erie, Lackawanna, Luzerne, Lycoming and Mercer—even though the U.S. Environmental Protection Agency had called for enhanced emissions testing in those counties. The Secretary of the Environmental protection James M. Seif stated in a March 2000 article that "we won't put a program in place where it's not needed, and we don't believe that putting an enhanced auto emissions program in these mostly rural counties will have an appreciable effect on improving air quality."²⁴

According to Pennsylvania's Drive Clean Program, which distributes information about Pennsylvania's emissions testing program, its success is evident in the Pittsburgh area. The program helped the area attain the one-hour health-based ozone standard in 2001. Attainment means that the area has reached the ambient air quality levels required by

^{18.} Id.

Id.

^{20.} PA DEPT. OF ENVIL. PROT. HOMEPAGE, RIDGE: NO DELAYS ON VEHICLE EMISSIONS INSPECTION PROGRAM, (July 25, 1997), http://www.dep.state.pa.us/dep/ deputate/polycomm/update/07-25-97/072597u8.htm.

^{21.} Id.

^{22.} PA DEPT. OF ENVIL. PROT. HOMEPAGE, STAKEHOLDERS PRAISED FOR REJECTING CENTRALIZED AUTO EMISSIONS TESTING, (2000), http://www.dep.state.pa.us/dep/deputate/ polycomm/update/03-03-00/030300u4.htm.

^{23.} Id.

^{24.} Id.

federal law.²⁵ The program has also contributed to improvements in airquality in the Philadelphia area by helping to reduce the number of times the area exceeded the one-hour ozone standard.²⁶ Despite these improvements, the program administrators believe that it appears likely that the program will remain necessary for the near future.²⁷ In spite of the serious disagreements that have plagued the emissions testing since inception, from centralized plans to individual inspection stations to almost no implementation at all, it seems the current plan is the best alternative for Pennsylvania and less inconvenient for motorists, compared to centralized plans.

Pennsylvania is not alone in struggling to balance needed emissions reductions and monitoring with consumer's desires for less expensive vehicles and their maintenance. The District Court for the D.C. Circuit explained the difference between the emissions inspections of existing automobiles and the emissions standards for new automobiles, both of which are regulated by the Clean Air Act in a case that came before it in 1998.²⁸ The Act establishes a two-pronged federal-state approach limiting motor vehicle pollution. The states have the responsibility for inspection of existing motor vehicles, and the federal government has the responsibility of establishing standards for new cars.²⁹ Regarding new car standards:

One state, California, is permitted to establish its own automobile emissions standards for new cars. See CAA § 209(b), 42 U.S.C. § 7543(b). Other states are permitted to adopt California's standards instead of those promulgated by the federal government. See CAA § 177, 42 U.S.C. § 7507. The effect of the Clean Air Act is that new

^{25.} PENNDOT DRIVE CLEAN PENNSYLVANIA HOMEPAGE, FREQUENTLY ASKED QUESTIONS: EMISSIONS AND SAFETY INSPECTION PROGRAM CHANGES, (2003), http://www.drivecleanpa.state.pa.us/drivecleanpa/changes/faq_station.pdf.

^{26.} *Id*.

^{27.} Id

^{28.} Motor & Equip. Mfrs. Ass'n v. Nichols, 142 F.3d 449, 453 (D.C. Cir. 1998) (summarizing the Act, 42 U.S.C. §§ 7401-7671(q) (1988 & Supp. V 1993), "regulates air pollution by establishing air quality standards for certain pollutants and controlling the emissions of approximately 189 hazardous pollutants). See CAA §§ 109, 112, 42 U.S.C. §§ 7409, 7412. The Act establishes a two-pronged federal-state approach limiting motor vehicle pollution. The states regulate automobiles after they have been purchased by consumers through inspection and maintenance programs. See CAA §§ 104, 106, 111a(b)(4), (a)(2)(B), 42 U.S.C. §§ 7504, 7506, 7511a(b)(4), (a)(2)(B). Inspection and maintenance programs are designed to identify and ensure the repair of in-use automobiles that are emitting excessive pollutants. Subchapter I of the Act is primarily concerned with the ground rules for the implementation of these post-purchase programs by the states. Subchapter II of the Act vests in the federal government the almost exclusive responsibility for establishing automobile emission standards for new cars. See CAA §§ 202, 209(a), 42 U.S.C. §§ 7521, 7543(a).

^{29.} *Id*.

"motor vehicles must be either 'federal cars' designed to meet EPA's standards or 'California cars' designed to meet California's standards." 30

The standards New York and other northeastern states are moving towards are "California cars." Pennsylvania's neighboring states certainly should not dictate Pennsylvania's policy. However, Pennsylvania's legislature should consider that by conforming to the growing trend of cleaner cars by maintaining the emission inspection and maintenance standards, they are showing their commitment to the responsibility given them by the two-prong plan in the CAA. A show of good faith towards the federal government could go a long way towards gaining federal support for the "California cars" standard in PA. This development would be in the best interests of their constituents.

III. The Clean Air Act and the Pennsylvania Counterpart Acts

Not every county in Pennsylvania is required to perform emissions testing. This section will explain how the current program developed to test only select counties. The Federal Clean Air Act was preceded in Pennsylvania by the state's own pollution control measures.³¹ The Pennsylvania Air Pollution Control Act of 1960 granted the former Department of Environmental Resources, the Environmental Quality Board and the Environmental Hearing Board the power to reduce and prevent air pollution.³² It also established reduction targets of air pollutants in order to protect the health and welfare of the citizens.³³

The Federal Clean Air Act of 1970 (CAA) set a national goal of clean and healthy air for everyone.³⁴ The Amendment of 1990 aimed to further reduce acid rain, urban air pollution and toxic air emissions.³⁵ Under the Federal amendments, Pennsylvania was required to come into

^{30.} Id. at 454.

^{31.} DEP Fact Sheet, Air Pollution in PA, http://l64.156.71.80/VWRQ.asp?docid=0442d740780d000000005c7000005c7&context=2&backlink=WXOD.aspx%3ffs%3d0442d740780d0000800005c6000005c6%26ft%3d1 (last visited Jan. 2, 2006).

^{32.} *Id*

^{33.} *Id*.

^{34.} Clean Air Council v. Mallory, 226 F. Supp. 2d 705, 707 (E.D. PA 2002) (citing to 42 U.S.C. § 7401(b)) ("The purpose of the CAA is "(1) to protect and enhance the Nation's air resources... (2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution; (3) to provide technical and financial assistance to state... governments [in the] execution of their air prevention and pollution control programs; and (4) to encourage and assist the development and operation of regional air pollution control programs; and (5) to encourage and assist the development and operation of regional air pollution prevention and control programs.").

^{35.} Id.

compliance with new federal air standards.³⁶ To comply, the state's Air Pollution Control Act adopted the federal standards.³⁷ The DEP is now the leading state agency with a critical role in controlling Pennsylvania's air pollution.³⁸

The CAA states that the EPA must establish National Ambient Air Quality Standards ("NAAQS") for particular air pollutants.³⁹ In Whitman v. Am. Trucking Ass'ns, Justice Scalia, writing for the Supreme Court, confirmed that "economic considerations may play no part in the promulgation of ambient air quality standards..." Therefore economically distressed regions of Pennsylvania cannot be exempted from programs designed to achieve attainment.

The CAA classifies an area as "non-attainment" for a particular air pollutant if the area does not satisfy the primary or secondary NAAQS for that particular air pollutant. In Clean Air Council v. Mallory, the District Court for the Eastern District of Pennsylvania ruled that the Secretary of Penn DOT and the Secretary of DEP were in violation of emission standards or limitations within the meaning of the CAA, 42 U.S.C. § 7604(a)(1)(f) for failing to fully implement the motor vehicle inspection and maintenance program that is required by PA's State Implementation Plan.⁴² The court was particularly concerned with the failure to implement an enhanced motor vehicle inspection and maintenance program in the five counties surrounding the Philadelphia area, which was a non-attainment area for ozone. The result was that automobiles that fail an emission test must be repaired to reduce their emission of ozone forming pollutants.⁴³ The court went even further in stating, "DEP and Penn DOT have a duty to implement the enhanced inspection and maintenance program."44 The court reasoned that the purpose of the CAA is to end slow and ineffective state implementation

^{36.} Id.

^{37.} Id.

^{38.} DEP Fact Sheet, Air Pollution in PA, http://l64.156.71.80/VWRQ.asp?docid=0442d740780d000000005c7000005c7&context=2&backlink=WXOD.aspx%3ffs%3d0442d740780d0000800005c6000005c6%26ft%3d1 (last visited January 2, 2006).

^{39.} Clean Air Council v. Mallory, 226 F. Supp. 2d 705, 707 (E.D. PA 2002) (citing to 42 U.S.C. § 7409(a)).

^{40.} Whitman v. Am. Trucking Ass'n, 531 U.S. 457, 464 (2001).

^{41.} Clean Air Council v. Mallory, 226 F. Supp. 2d 705, 707 (E.D. PA 2002) (citing to 42 U.S.C. § 7407(d)(1)(A)(i)).

^{42.} Id. at 707.

^{43.} Id. at 709.

^{44.} *Id.* (citing to 35 Pa. Cons. Stat. Ann. § 4004 ("[DEP] shall have power and its duty shall be to—(1)Implement the provisions of the Clean Air Act in the Commonwealth..."). In addition, 75 Pa. Cons. Stat. Ann. § 4706(b)(1) ("... if the secretary shall certify that a system is required to comply with the Clean Air Act... the Department [of Transportation] shall establish and administer an enhanced emission inspection program...")).

strategies.⁴⁵ Likewise, the Pennsylvania legislature's attempt to end the inspection and maintenance program is in effect an attempt to contravene the purpose of the CAA.

The Clean Air Act requires that each state submit a State Implementation Plan (SIP) to the EPA for approval. Once approved by the EPA, the SIP has the force and effect of federal law, thereby permitting the Administrator to enforce it in federal court. The Court of Appeals for the District of Columbia Circuit decided in 2002 that states that fail to develop adequate plans are subject to sanctions, or in the alternative the EPA impose an implementation plan upon them. The court of t

In using the Clean Air Council reasoning, the District Court for the Eastern District of Pennsylvania found that the vehicle inspection and maintenance programs" are in effect under an applicable implementation plan because they are included in the Pennsylvania SIP.48 The court ordered the Departments to implement the Inspection and Maintenance programs in the sixteen specified counties.⁴⁹ This and other court decisions resulted in a program that required tests in twenty-five Pennsylvania counties, and resulted in nearly 6.6 million vehicles tested annually.⁵⁰ Before the 1990 Clean Air Act went into effect, seventy United States cities and several states already had auto emission inspection programs.⁵¹ The 1990 law requires inspection and maintenance programs in more areas: forty metropolitan areas, including many in the northeastern United States, are required to start emission inspection and maintenance programs.⁵² The EPA's website admits that air pollution has been reduced in many areas since the implementation of the CAA, but this does not mean that emissions testing is no longer necessary. Several factors had an effect in the reduction of air pollution: each of today's cars produces 60% to 80% less pollution than cars in the 1960s; more people are using mass transit, and leaded gas has been phased out. This has resulted in dramatic declines in lead in the air, a

^{45.} *Id.* at 724. (citing to New York v. Gorsuch, 554 F. Supp. 1060, 1063 (S.D.N.Y. 1983)).

^{46.} *Id.* (citing to 42 U.S.C. § 7413(a),(b)).

^{47.} Am. Trucking Ass'ns v. E.P.A., 283 F.3d 355, 359 (D.C. Cir. 2002).

^{48.} Citizens for Pa.'s Future v. Mallory, No. 02-798, 2002 U.S. Dist. LEXIS 24406, at *35 (E.D.Pa. Dec. 18, 2002).

^{19.} *Id*.

^{50.} State.pa.us, Pennsylvania Motorists Expected to Save \$57 Million over Five Years with New Contract for Vehicle Emissions Testing Program, http://www.state.pa.us/papower/cwp/view.asp?Q=446365&A=11, (last visited Jan. 27, 2006).

^{51.} The Plain English Guide to the Clean Air Act, Inspection and Maintenance Programs, http://www.epa.gov/oar/oaqps/peg_caa/pegcaa04.html#topic4c (emphasis added) (last visited Jan. 6, 2006).

^{52.} *Id*.

very toxic chemical.53

Despite this progress, most types of air pollution from mobile sources have not improved significantly.⁵⁴ At present in the United States: "Motor vehicles are responsible for up to half of the smogforming VOCs and nitrogen oxides (NOx), release more than 50 percent of the hazardous air pollutants and release up to 90 percent of the carbon monoxide found in urban air."⁵⁵ The reason for this is that an increasing number of people are driving more cars for extended miles on more trips. Passenger cars and light trucks traveled 2.55 trillion vehicle miles in the U.S. in 2001, an increase of more than 25% over 1991 distances. On the carbon more trips of people are driving more cars for extended miles on more trips. On the U.S. in 2001, an increase of more than 25% over 1991 distances.

In addition, many people live far from where they work and in some areas, buses, subways, and commuter trains are not available.⁵⁸ Unfortunately, most people still drive to work alone, even when van pools, HOV (high-occupancy vehicle) lanes and other alternatives to one-person-per-car commuting are available.⁵⁹ Buses and trucks, which produce a significant amount of pollution, have not had to clean up their engines and exhaust systems as much as cars.⁶⁰ Also, auto fuel has become more polluting. As lead was being phased out in the 1970's and 80's, gasoline refiners changed gasoline formulas to make up for octane loss; the changes made gasoline more likely to release smog-forming VOC vapors into the air.⁶¹ While it may be true that the technology has advanced to the stage that on-board computers can monitor the emissions from newer model vehicles, the legislators who want to end emissions testing miss the crucial fact that human monitoring will still be needed to service the new technological sensors.⁶² The Final State Implementation

^{53.} *Id*.

^{54.} *Id.*

^{55.} Id.

^{56.} Id.

^{57.} Bureau of Transportation Statistics, U.S. Vehicle-Miles, http://www.bts.gov/publications/national transportation statistics/2003/html/table 01 32.html (last visit Jan. 27, 2006).

^{58.} *Id*.

^{59.} The Plain English Guide to the Clean Air Act, Mobile Sources, (cars, trucks, buses, off-road vehicles, planes, etc.) http://www.epa.gov/oar/oaqps/peg_caa/pegcaa04.html#topic4b (last visited Jan. 2, 2006).

^{60.} *Id*.

^{61.} *Id*.

^{62.} DEP'T OF ENVIL. PROT., FINAL STATE IMPLEMENTATION PLAN REVISION, VEHICLE EMISSIONS INSPECTION/MAINTENANCE PROGRAM, PROGRAM CHANGES FOR PHILADELPHIA AND PITTSBURGH REGIONS, (January 2004), http://www.dep.state.pa.us/dep/deputate/airwaste/aq/plans/plans/im/obd_sip_final.pdf (The legislators might be referring to the following passage from the SIP: "The engines in vehicles from the model year 1996 and newer are largely electronically controlled. Optimal engine performance and control is maintained by a system of sensors and actuators. An onboard computer

Plan for vehicle Emissions Inspection/Maintenance Program of 2004 noted as much.⁶³

The advances in technology are amazing and important to the reduction of dangerous emissions but, like all technology, need a system of supervision. The Implementation Plan states:

Many component failures that impact 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 more quickly and accurately make the proper repair.⁶⁴

Without the supervision of a certified emissions inspector, those failures that would be difficult to notice by a layperson could cause unnecessary delay and frustration for car owners, plus added pollution in non-attainment areas.

Because of the SIP's approval by the EPA, it has the force and effect of federal law. Therefore, it is the position of this comment that proposals by representatives of the Pennsylvania legislature must consider whether they will risk federal sanctions or imposition of a federal plan in order to achieve their goal of ending the vehicle emissions inspection program.

IV. The Inspection and Maintenance Programs Still Perform a Needed Function

The timing of the legislature's debate is opportune for Pennsylvania environmentalists, as New York State announced in early November 2005 that it would adopt California's strict new limits on automobile emissions of carbon dioxide, a major greenhouse gas. 65 According to the New York Times, the standards are the most ambitious environmental

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.').

^{63.} *Id*.

^{64.} Id.

^{65.} Editorial, Cleaner Cars for New York, N.Y. TIMES, Nov. 11, 2005, at A22.

regulations for automobiles since federal fuel economy regulations were enacted in the 1970's. 66 They will be phased in starting with 2009 models and require a roughly 30 percent reduction in automotive emissions of carbon dioxide and other greenhouse gases by the 2016 models. 67 If Pennsylvania were to follow the lead of New York and California, it would be a positive step towards making the air cleaner for all Pennsylvanians. Opponents of the current emissions inspection plan would undoubtedly use this as a reason to argue that the inspection program would no longer be necessary.

This comment recommends that Pennsylvania embrace both plans. First, continue automobile emissions inspections and maintenance on the current auto fleet. Secondly, require the automobile industry to meet California standards for new cars in Pennsylvania. Both plans would have a positive effect in the fight against air pollution in Pennsylvania.

Pennsylvania's Clean Vehicles Program adopted California's standards for Low Emission Vehicles in 1998, but it did not adopt the Zero Emission Vehicle program requirements.⁶⁸ In its October 2005 proposed rulemaking, the Environmental Quality Board (EQB) approved language describing how DEP would monitor new motor vehicle emission standard developments by the California Air Resource Board, commented on pending changes and analyzed and advised the EQB and the Committee chairs on changes to California's regulations and their potential impacts on Pennsylvania.⁶⁹ While there has been a steady push to improve the standards of Pennsylvania's air from a portion of the legislature, alternately, there has been a hesitancy to avoid permitting California to set standards for Pennsylvania. This hesitancy stems from a desire to protect the citizens from added fees. This highlights the fact that the concerns about cost and convenience to citizens have not been solely reserved for the Inspection and Maintenance Program, but have been a consistent issue. As such, the issue deserves a serious discussion and explanation.

From their implementation, the Inspection and Maintenance Programs were intended to be permanent programs and not repealable when political and air conditions changed. The language from the EPA's website indicates as much: "Under the 1990 Clean Air Act, auto

^{66.} Id.

^{67.} Danny Hakim, Battle Lines Set as New York Acts to Cut Emissions, N.Y. TIMES, Nov. 26, 2005, at A1.

^{68.} Myths and Facts about the Pennsylvania Clean Vehicles Program, http://www.dep.state.pa.us/dep/deputate/airwaste/aq/cars/docs/TP_CA_MythFacts.pdf (last visited Jan. 2, 2006).

^{69.} Id.

^{70.} Id.

manufacturers will build *cleaner cars*, and cars will use *cleaner fuels*."⁷¹ However, to get air pollution down *and keep it down*, a third program is needed—vehicle inspection and maintenance (I/M)—which makes sure cars are being maintained adequately to keep pollution emissions low. ⁷² The 1990 Clean Air Act includes very specific requirements for inspection and maintenance programs. ⁷³ Some areas that already have inspection and maintenance programs are required to improve their emission inspection machines and procedures. ⁷⁴

With any government program, it is hard to overcome concerns over cost to consumers when immediate gratification is not realized, and the concern over the cost of the enhanced emissions inspection machines has led some private stations to balk at buying the new machinery. For example, owner Frank Draskovic of Frank's Auto Repair in Mercer County, PA, stated that he spent approximately \$7,000 for emissions inspection machinery, a sum he felt was unnecessary for a program that he could not see making significant positive changes for his customers. If even inspectors who have decided to pay large sums of money for testing equipment for performing emissions inspections are wary of the program, it would be understandable that residents of what is a mostly rural county have expressed concern to their legislative representatives about an additional government program.

Savings from prevention of diseases, such as asthma and emphysema, which can result from air pollution, are difficult to quantify in monetary terms. According to the EPA, the added expense for the new machinery will be more than made up for by air pollution reductions: emission inspection and maintenance programs are expected to have a big payoff in reducing air pollution from cars.⁷⁷

One of the complaints about the program is that it is implemented non-uniformly across Pennsylvania.⁷⁸ This is, at its heart, an equal protection argument. For example, Mercer County, where Frank's Auto Repair is located, is required to conduct emissions testing. There are no

^{71.} The Plain English Guide to the Clean Air Act, Inspection and Maintenance Programs, http://www.epa.gov/oar/oaqps/peg_caa/pegcaa04.html#topic4c (emphasis added) (last visited Jan. 6, 2006).

^{72.} *Id*.

^{73.} *Id*.

^{74.} *Id*.

^{75.} *Id*.

^{76.} Interview with Frank Draskovic, Frank's Auto Repair, in West Middlesex, PA (Dec. 17, 2005).

^{77.} The Plain English Guide to the Clean Air Act, Inspection and Maintenance Programs, http://www.epa.gov/oar/oaqps/peg_caa/pegcaa04.html#topic4c (emphasis added) (last visited Jan. 6, 2006).

^{78.} Interview with Frank Draskovic, Frank's Auto Repair, in West Middlesex, PA (Dec. 17, 2005).

major metropolitan areas in the county, and the surrounding counties are not required to do testing. Mercer County, however, does have two major state highways that cross its boundaries. The residents of the county have a reasonable argument when they claim that they are being singled out for this additional expense. Some of the air pollution that is present in the county is undoubtedly the result of nonresidents traveling in the county.

This argument alone is not sufficient to find a violation of the Equal Protection Clause of the United States Constitution. As the Supreme Court stated in the *Slaughter-House Cases*, the police power of the state extends:

[T]o the protection of the lives, limbs, health, comfort, and quiet of all persons, and the protection of all property within the State; and persons and property are subjected to all kinds of restraints and burdens in order to secure the general comfort, health, and prosperity of the State. Of the perfect right of the legislature to do this no question ever was, or, upon acknowledged general principles, ever can be made, so far as natural persons are concerned.⁸¹

The Mercer County situation is similar to that of smoking bans in public places, such as the ban that New York State has implemented which does single out a particular class of persons and places some burdens on their activities. Smoking bans are insufficient to render the government action a violation of the equal protection clause, as long as the government has articulated some rational basis for the action. The rationale for emissions testing is that just as the prevention of second-hand smoke inhalation benefits all residents of a state, Mercer County's residents who travel to neighboring counties can rest assured that they are not polluting their neighbor's breathable air. In addition, they can take pride in reducing the amount of pollution that travels into neighboring counties from their county. Mercer County residents would therefore be contributing to the well being of others, as well as improving the air quality of their own county.

Another complaint is that an emission testing constitutes a taking because it would disproportionately affect low-income drivers who cannot afford newer model cars. Those on a fixed budget may contend that they are the most likely to own the older model vehicles that need

^{79.} Id.

^{80.} *Id.* (referring to Interstate 80, which crosses the state from east to west, and interstate 79, which connects Erie to Pittsburgh. Both transverse Mercer county.)

^{81.} Slaughter-House Cases, 83 U.S. 36, 62 (U.S. 1873).

^{82.} NYC C.L.A.S.H., Inc., v. City of New York, 315 F. Supp. 2d 461, 483 (S.D.N.Y. 2004).

inspection and repairs and may be denied the use of their vehicle. The PA Drive Clean program tried to address this issue by capping the amount of repairs at one hundred and fifty dollars per year, after which the vehicle owner can receive a waiver from further repairs. In addition, repairs to emissions-related components can reduce the operating costs through improved fuel economy, prevent minor problems from becoming more costly, and prolong the life of the vehicle. Pennsylvania is relying upon the market to regulate the cost of the inspection. Individuals have the responsibility to find the inspection site that has the lowest price or is most convenient.

It is the position of this comment that Pennsylvania can do more for those who cannot pay reasonable prices. Chief Justice Rehnquist, in a 1988 Supreme Court opinion discussing rent control, stated: "The traditional manner in which American government has met the problem of those who cannot pay reasonable prices for privately sold necessities—a problem caused by the society at large—has been the distribution to such persons of funds raised from the public at large through taxes. ..."

Like the food stamp program, the emissions program is important to the well-being of all Pennsylvanians. A possible solution for those citizens whose income falls below a certain limit (classified as below the poverty level, for example) could be a program structured like the food stamp program. While the added tax burden to Pennsylvania citizens would be a concern, the benefits of cleaner air would affect all Pennsylvanians.

Incentive programs motivate all classes of citizens. Salt Lake City offers free parking as an incentive for people to buy fuel-efficient vehicles.⁸⁷ Utah already offers an income tax credit of up to \$3,000 for residents who buy clean fuel vehicles and some gas-electric hybrids. It also allows those vehicles to use high occupancy vehicle lanes.⁸⁸ Similar incentives for complying with the emissions testing program in

^{83.} Frequently Asked Questions: Emissions and Safety Inspection Program Changes, http://www.drivecleanpa.state.pa.us/drivecleanpa/changes/faq_station.pdf (last visited Jan. 7, 2006).

^{84.} Id.

^{85.} Id.

^{86.} Pennell v. San Jose, 485 U.S. 1, 21-24 (U.S. 1988) (examples such as welfare payments, public housing, publicly subsidized housing, and food stamps. Chief Justice Rehnquist, citing to Armstrong v. United States, 364 U.S. 40, 49, (1960), stated, unless we are to abandon the guiding principle of the Takings Clause that "public burdens... should be borne by the public as a whole," this is the only manner that our Constitution permits.).

^{87.} Salt Lake City Gives Greenest Cars Free Parking: Those Getting 50 mpg or Better Don't Have to Pay for Meters, Associated Press, Jan. 16, 2006, http://msnbc.msn.com/id/10876843/.

^{88.} Id.

Pennsylvania would lessen the burden upon low-income residents, while making the program more appealing to all residents.

Another potential argument that residents of a county which conducts emissions inspections and maintenance tests is that the forced inspection of their vehicles' tailpipes' constitutes a search and seizure under the Fourth Amendment to the United States Constitution. ⁸⁹ The Court of Appeals of Maryland dealt with this issue in 1984, ruling that there are no Fourth Amendment violations in these procedures. ⁹⁰ The court cited Supreme Court principles for the ruling: "It is well accepted that an individual has no expectation of privacy in items that he knowingly exposes to the public." ⁹¹ The court continued: "examination of the exterior of an automobile does not infringe any privacy interest protected by the Fourth Amendment." ⁹² Since the Supreme Court of the United States has created precedent in the areas cited by the Maryland court, it is unlikely that this argument would prevail in Pennsylvania.

V. The Air Pollution Problem in Pennsylvania

The EPA maintains a list of non-attainment areas for six principal pollutants including ozone on their "Green Book Website." While not a direct product of emissions from automobiles, ozone is created by the combination of the toxic emissions from automobiles. As of September 29, 2005, the EPA listed twenty-five counties as subject to the eight-hour non-attainment areas for ozone and a maintenance area for carbon dioxide and particulate matter. While these listings are an improvement over previous listings where the current eight hour non-attainment areas were mostly listed as the more serious one hour non-attainment areas, the gains can not be taken for granted.

Pennsylvania's counties could slip back to one hour non-attainment areas for ozone without adequate maintenance and inspection of automobiles. Pennsylvania is a highly developed industrial state, especially near the urban centers; therefore, maintaining low emissions from automobiles is important to offset the emissions produced from

91. Id. (citing to Katz v. United States, 389 U.S. 347, 88 (1967)).

^{89.} Dep't of Transp., Motor Vehicle Adm. v. Armacost, 474 A.2d 191, 198 (Md. 1984).

^{90.} Id.

^{92.} Id. (citing to Cardwell v. Lewis, 417 U.S. 583, 591 (1974)).

^{93.} Green Book, 8-Hour Ozone Non-attainment State/Area/County Report (Sept. 29, 2005), http://www.epa. gov/oar/oaqps/greenbk/gncs.html#PENNSYLVANIA.

^{94.} Id. (Those counties were: Carbon, Lehigh, Northampton, Blair, Erie, Franklin, Greene, Cumberland, Dauphin, Lebanon, Perry, Cambria, Lancaster, Bucks, Chester, Delaware, Montgomery, Philadelphia, Allegheny, Armstrong, Beaver, Butler, Fayette, Washington, Westmoreland, Berks, Lackawanna, Luzerne, Monroe, Wyoming, Adams, York and Mercer counties.).

other sources.

National statistics can give an indication of pollutants that Pennsylvanians could unknowingly be breathing. Vehicle emissions are the source of 51% of the carbon monoxide in the air. 95 As much as 95% of the carbon monoxide in typical U.S. cities comes from mobile sources, according to Environmental Protection Agency studies.⁹⁶ monoxide reduces oxygen delivery to the body's organs and tissues.⁹⁷ High levels of carbon monoxide pose the greatest risk to those who suffer from heart and respiratory disease. 98 High carbon monoxide pollution levels also affect healthy people, can cause visual impairment, headaches, and reduced work capacity.99

Vehicle emissions are the source of 29% of the hydrocarbons in the Many cities in the United States are affected by airborne hydrocarbons, which are a precursor to ground-level ozone. 101 A key component of smog, ground level ozone is created by the chemical reaction of hydrocarbons and nitrogen oxides in the presence of sunlight. 102 Vehicle emissions are the source of 34% of the nitrogen oxides in the air. 103 When human lungs take up ground-level ozone, it causes breathing problems, lung damage, and reduces the amount of oxygen carried by the blood. 104

Research is still being conducted on the health effects of auto emissions combining to form ozone, but in one particular study, scientists from Columbia University and New York University attempted to determine whether changes in lung function or respiratory symptoms would occur over the course of a summer among healthy young adults working outdoors in the presence of ozone. 105 The study followed

^{95.} U.S. Environmental Protection Agency, Mobile Source Emissions-Carbon Monoxide, http://www.epa.gov/otaq/invntory/overview/pollutants/carbonmon.htm (last visited January 8, 2006).

^{96.} *Id*.

^{97.} *Id*. 98.

Id.

^{99.} Id.

^{100.} U.S. Envtl. Prot. Agency, Mobile Source Emissions-Hydrocarbons, http://www.Epa.gov/otaq/inventory/overview/pollutants/hydrocarbons.htm (last visited Jan. 3, 2006).

^{101.} Id.

^{102.} Id.

^{103.} U.S. Envtl. Prot. Agency, Mobile Source Emissions-Nitrogen Oxides, http://www.epa.gov/otaq/invntory/overview/pollutants/nox.htm (last visited Jan. 3, 2006). 104. *Id.*

^{105.} Am. Lung Ass'n, Annotated Bibliography of Recent Studies of the Health Effects of Ozone Air Pollution 1997, http://www.lungusa.org/atf/cf/{7A8D42C2-FCCA-4604-8ADE-7F5D5E762256}/OZONE_HEALTH97-01.PDF (last visited January 3, 2006) (citing to Kinney, P.L. and Lippmann, M. Respiratory Effects of Seasonal Exposures to Ozone and Particles, 55, ARCHIVES OF ENVIL. HEALTH, 210-16, May/June

seventy-two sophomore cadets from the U.S. Military Academy at West Point, New York, during their summer training at Fort Benning, GA, Fort Leonard Wood, MO, Fort Sill, OK, and Fort Dix, NJ. ¹⁰⁶ All the subjects on average experienced a decline in lung function over the course of the summer. ¹⁰⁷ There were also significant increases in reports of cough, chest tightness, and sore throat. ¹⁰⁸ The decline in lung function was greatest in the group of military cadets who attended training in Fort Dix, New Jersey, where peak hourly ozone concentrations above 100 ppb occurred frequently. ¹⁰⁹ The authors concluded that these results suggest a possible adverse respiratory-health impact of exposures to particulate matter and ozone in healthy young adults engaged in intensive outdoor training. ¹¹⁰

The exhaust from motor vehicles also contains particulate matter.¹¹¹ Particle pollution can cause serious health problems even at relatively low concentrations and is responsible for tens of thousands of premature deaths in the United States each year.¹¹²

Despite these negative effects, Pennsylvanians can be encouraged that their efforts to reduce auto emissions can have a positive result in a short amount of time. For example, during the 1996 Summer Olympics in Atlanta, a concerted effort was made to lower traffic congestion to enable spectators to get to the games. Public transit was enhanced, the downtown was closed to private cars, and businesses were encouraged to promote telecommuting and alternative work hours. As a result, there were significant decreases in ozone concentrations, and somewhat lesser reductions in carbon monoxide and particulate matter concentrations. During this period, researchers found significant reductions in the numbers of urgent care visits, emergency care visits, and hospitalizations for asthma among children ages 1-16 years. The researchers

^{2000).}

^{106.} *Id*.

^{107.} Id.

^{108.} Id.

^{109.} *Id*.

^{110.} Id.

^{111.} U.S. Envtl. Prot. Agency, Mobile Source Emissions—Particulate Matter, http://www.epa.gov/otaq/invntory/overview/pollutants/pm.htm (last visited Jan. 3, 2006).

^{112.} Id

^{113.} Am. Lung Ass'n, Annotated Bibliography of Recent Studies of the Health Effects of Ozone Air Pollution 1997, http://www.lungusa.org/atf/cf/{7A8D42C2-FCCA-4604-8ADE-7F5D5E762256}/OZONE_HEALTH97-01.PDF (last visited Jan. 3, 2006) (citing to Friedman, M.S., Impact of Changes in Transportation and Commuting Behaviors during the 1996 Summer Olympic Games in Atlanta on Air Quality and Childhood Asthma, J. Am. Med. Ass'n, Vol. 285, No.7, 897-905, 2001).

^{114.} *Id*.

^{115.} Id.

^{116.} Id.

concluded that the efforts to decrease ozone and particulate matter concentrations from moderate to low levels can decrease the burden of asthma. Maintaining auto emissions inspections could have a similar effect as the results of the Atlanta study, because automobiles become less efficient as they age, and the inspection and maintenance program can prevent some pollution from ever entering Pennsylvania's atmosphere.

Pennsylvania's actions also affect its neighboring states and the world at large in the struggle to reduce greenhouse gases. Research published in a November 2005 issue of the journal *Science* describes a scientific experiment conducted in Antarctica in which an ice core about two miles long was drilled from the earth's crust. The researchers found that the carbon dioxide levels of today are 27% higher than they have been in the last 650,000 years, and levels of methane are 130% higher. This work provides key evidence that human activity since the Industrial Revolution (of which Pennsylvania contributed mightily,) has significantly altered the planet's climate system.

VI. Conclusion

This comment supports the current Pennsylvania auto emissions inspection program and states that Pennsylvania's legislature should not repeal the program currently in place. This program mandates inspection and maintenance of vehicles owned by residents of counties in which the air does not meet pollution standards. To end the program or scale it back would create an opportunity for the EPA to withhold monetary funds earmarked for Pennsylvania. The current Pennsylvania emissions testing program conducted throughout the state at inspection stations replaced a plan for centralized emissions testing that would have been remarkably less convenient for owners. The state was slow to implement the current plan, but since its start, it has helped to improve the air quality in regions of Pennsylvania that the EPA had considered in non-attainment according to their National Ambient Air Quality Standards.

While residents of testing counties may feel they are receiving unequal treatment, this cannot be a rationale to end the program. Instead, the emissions program could be improved and promoted, taking into consideration issues of fundamental fairness for low-income residents who are disproportionately affected by the current emissions inspection

^{117.} *Id*.

^{118.} Usha Lee McFarling, Core Evidence That Humans Affect Climate Change; Ice Drilled in Antarctica Offers the Fullest Record of Glacial Cycles and Greenhouse Gas Levels, L.A. TIMES, Nov. 25, 2005, at A24.

^{119.} *Id*.

^{120.} Id.

program. Low income auto owners could be encouraged to enter the program by receiving reduced rates for inspection based upon income level or a subsidy provided by the government to offset the expense of the program for the most in need. To increase participation, all drivers could receive economic incentives such as gasoline credits, free parking passes or tax reductions for completing the inspection.

Controlling the pollution caused by automobile emissions through inspection and maintenance is an important step to providing clean and healthy air for all PA residents. Adopting stricter standards for new cars, such as the California standards for new cars (also in the process of implementation in New York State) is another option for controlling

emissions. Just as the human body needs maintenance and monitoring at every stage of life, automobiles with high emissions standards in place from the day of manufacture and throughout their useful life will help to prevent serious human diseases and global warming.