# APPENDIX 1

Ozone Nonattainment Counties and the I/M Program in Pennsylvania

COUNTY	NONATTAINMENT AREA	IM PROGRAM	
Bucks	Philadelphia-Wilmington-Atlantic	Philadelphia Region	
Chester	City (PA, MD, DE, NJ)		
Delaware			
Montgomery			
Philadelphia			
Franklin	Franklin County	None	
Perry	Harrisburg- Lebanon-Carlisle	None	
Cumberland	Harrisburg-Lebanon-Carlisle	South Central Region	
Dauphin	Harrisburg-Lebanon-Carlisle	South Central Region	
Lebanon	Harrisburg-Lebanon-Carlisle	South Central Region	
Lancaster	Lancaster	South Central Region	
Berks	Reading	South Central Region	
York	York	South Central Region	
Adams	York	None	
Lehigh	Allentown-Bethlehem-Easton	South Central Region	
Northampton	Allentown-Bethlehem-Easton	South Central Region	
Carbon	Allentown-Bethlehem-Easton	None	
Lackawanna	Scranton-Wilkes Barre	Northern Region	
Luzerne	Scranton-Wilkes Barre	Northern Region	
Monroe	Scranton-Wilkes Barre	None	
Wyoming	Scranton-Wilkes Barre	None	
Tioga	Tioga County	None	
Lycoming	None	Northern Region	
Centre	State College	Northern Region	
Blair	Altoona	Northern Region	
Cambria	Johnstown	Northern Region	
Clearfield	Clearfield-Indiana None		
Indiana	Clearfield-Indiana	None	
Erie	Erie	Northern Region	
Mercer	Youngstown-Warren-Sharon	Northern Region	
Allegheny	Pittsburgh-Beaver Valley	Pittsburgh Region	
Beaver	Pittsburgh-Beaver Valley	Pittsburgh Region	
Washington	Pittsburgh-Beaver Valley	Pittsburgh Region	
Westmoreland	Pittsburgh-Beaver Valley	Pittsburgh Region	
Butler	Pittsburgh-Beaver Valley		
Armstrong	Pittsburgh-Beaver Valley	None	
Fayette	Pittsburgh-Beaver Valley	None	
	Greene County	None	

#### **APPENDIX 2: Test Descriptions**

On-Board Diagnostic System (OBDII) is an automated inspection of the vehicle's on-board computer with diagnostic software and sensors to detect problems with the vehicle emissions components. OBD detects missing and malfunctioning equipment, and generates and stores diagnostic trouble codes in the vehicle's computer. These codes are displayed during the inspection. The OBDII inspection is federally mandated for all vehicles starting in 1996 (the first model year these components were installed and considered dependable on all light duty gasoline vehicles), therefore the testing procedures only apply to 1996 and newer model year vehicles.

Accelerated Simulation Mode Test (ASM) is a dynamometer-based test that simulates a "loaded" mode emission test while driving a vehicle at a predetermined speed and driving conditions.

2-Speed Idle Test measures exhaust emissions during two ranges of engine revolutions per minute (rpm) while the vehicle is idling.

Single Speed Idle Test Measures emissions during normal idling rpm.

Gas Cap Test is a functional check to determine if a vehicle's gas cap seals properly.

Anti-tampering check (ATP) is a visual examination of the vehicle to see if the required emissions components have been tampered with or removed. For the PA I/M Program, six control devices are inspected:

- Catalytic converter.
- Exhaust gas recirculation (EGR) valve.
- Positive crankcase ventilation (PCV) valve.
- Fuel inlet restrictor.
- Air pump.
- Evaporative control system components (such as vapor canisters and lines).

The inspections applicable in each I/M Region are provided below, along with the counties in that region and the model year vehicles subject to each inspection.

#### Philadelphia 5-County Area

Counties: Bucks, Chester, Delaware, Montgomery and Philadelphia

Model Years	Test Type	
1996 and newer	OBD and Evap OBD	
<1996	ASM	
1975 and newer	Gas Cap	
1975 – 1995	ATP	

### Pittsburgh 4-County Area

Counties: Allegheny, Beaver, Washington, and Westmoreland

Model Years	Test Type	
1996 and newer	OBD and Evap OBD	
<1996	2-Speed Idle	
1975 and newer	Gas Cap	
1975 – 1995	ATP	

### South Central 8-County Area

Counties: Berks, Cumberland, Dauphin, Lancaster, Lebanon, Lehigh, Northampton and York.

Model Years	Test Type		
1996 and newer	OBD and Evap OBD		
1975 and newer	Gas Cap		
1975 – 1995	ATP		

## Northern 8-County Region

Counties: Blair, Cambria, Centre, Erie, Lackawanna, Luzerne, Lycoming and Mercer

Model Years	Test Type
1975 and newer	Gas Cap
1975 and newer	ATP

### Other 42-Counties

Counties: 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, Wyoming.

Model Years	Test Type	
1975 and newer	ATP*	

<sup>\*</sup>Codified under and performed as part of the annual safety inspection

# **Appendix 3: Comparison of EPA Performance Standards and Programmatic Requirements**

Note: Pennsylvania successfully demonstrated that its decentralized, test-and-repair station network and sticker-based enforcement system are equivalent to the EPA model program's centralized, test-only network and registration denial enforcement system. These elements were approved by EPA as part of Pennsylvania's SIP revision.

Program Parameter	High Enhanced Performance Standard	Low Enhanced Performance Standard	OTR-Lite Performance Standard	April 2006 Enhanced Performance Standard
Region	Philadelphia	Pittsburgh	South Central & Northern	N/A
Program Design	Centralized, Test Only	Centralized, Test Only	Centralized, Test Only	Centralized, Test Only
Inspection Cycle	Annual	Annual	Annual	Annual
	OBD / Evap OBD 1996 & newer MY	OBD / Evap OBD 1996 & newer	OBD / Evap OBD 1996 & newer	OBD / Evap OBD 2001 & newer
Test Type – Exhaust	IM240 1986 – 1995 MY	Idle 1968 – 1995 MY	Remote Sensing 1968 – 1995 MY	Idle 1968 – 2000 MY
Emissions	2-Speed Idle 1981 – 1985 MY Idle			
Evaporative Testing	1968 – 1980 MY  Pressure & Gas  Cap  1983 – 1995 MY	None	None	None
Anti- Tampering	3 inspections	1 inspection	1 inspection	2 inspections
Subject Vehicles	Light-duty cars / trucks up to 8,500 lbs			
Subject MY	1968-Present	1968-Present	1968-Present	1968-Present
Waiver Rate	3%	3%	3%	3%
Compliance Rate	96%	96%	96%	96%
Exemptions	Current MY	Current MY	Current MY	Current MY
Waiver Threshold	\$450 in 1998, adjusted annually for inflation			
Enforcement	Registration Denial	Registration Denial	Registration Denial	Registration Denial
Data Collection	Electronic	Electronic	Electronic	Electronic
Certified Inspection Technicians	None	None	None	None