Annex A

TITLE 67. TRANSPORTATION

PART I. DEPARTMENT OF TRANSPORTATION

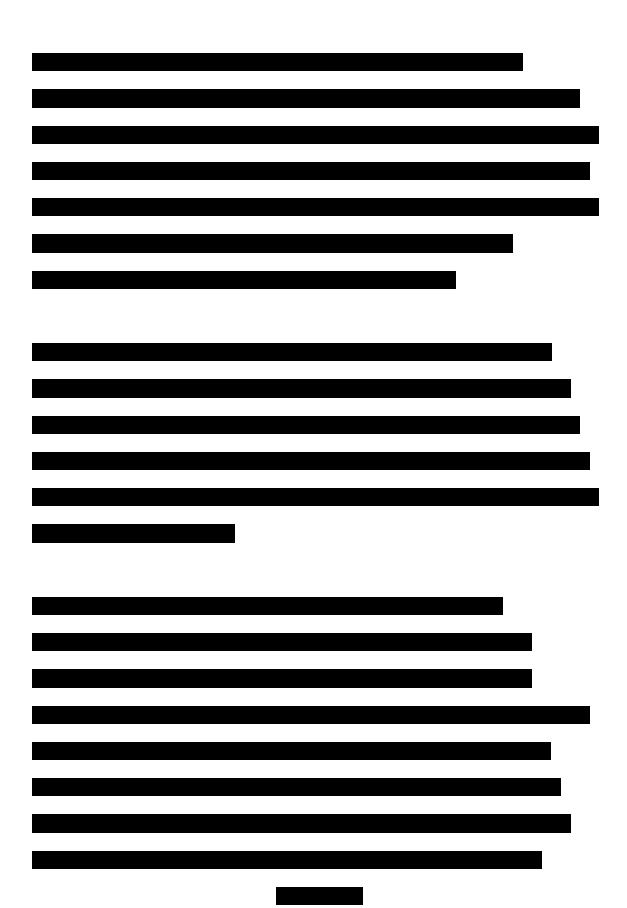
Subpart A. VEHICLE CODE CHARACTERISTICS

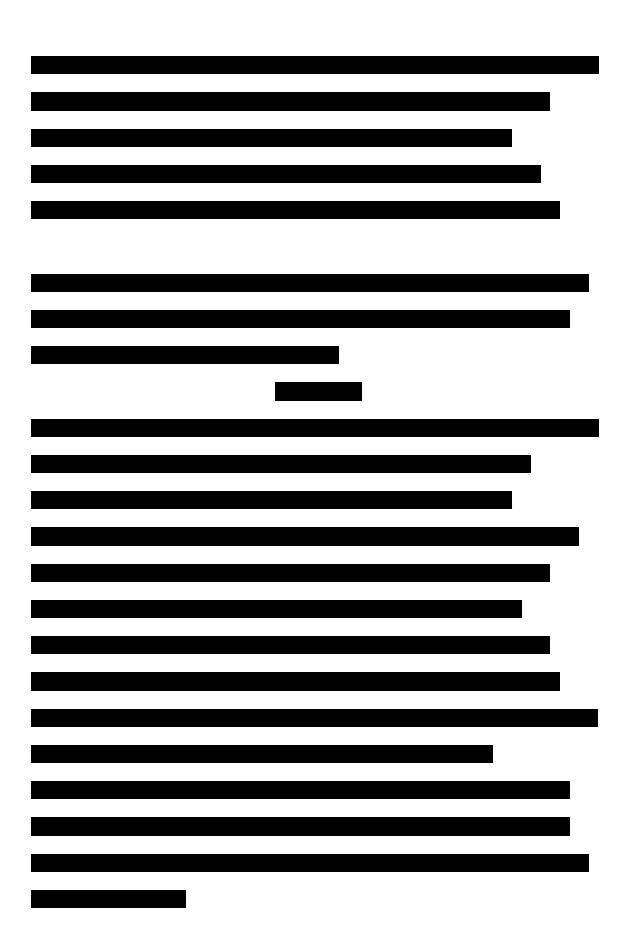
ARTICLE VII. VEHICLE CHARACTERISTICS

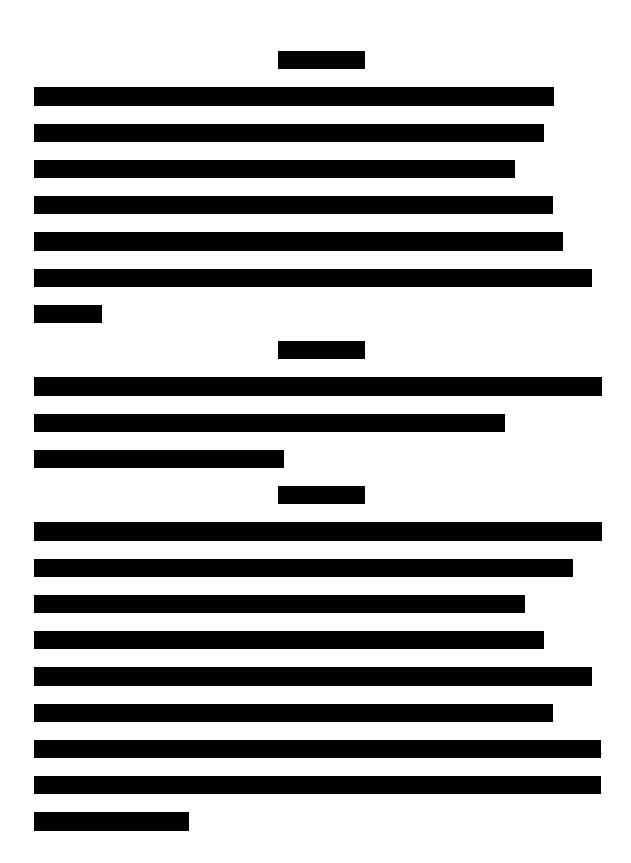
CHAPTER 177. [ENHANCED] EMISSION INSPECTION PROGRAM

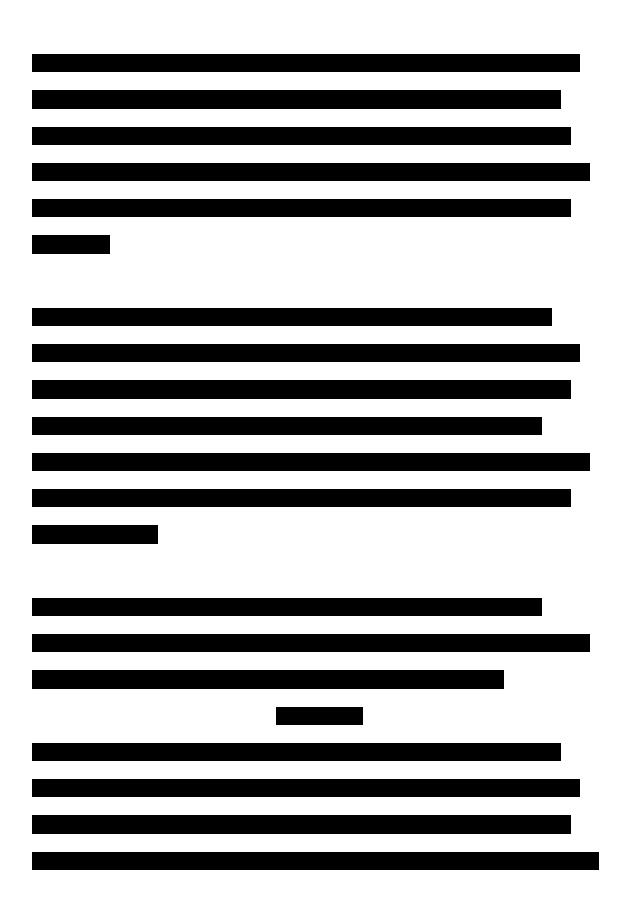
Subchapter A. General Provisions

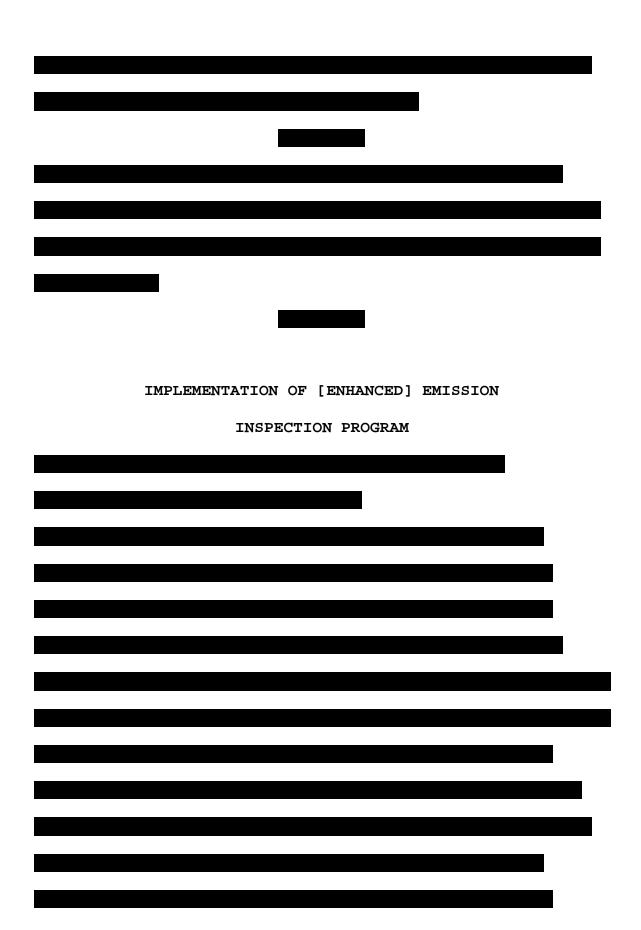
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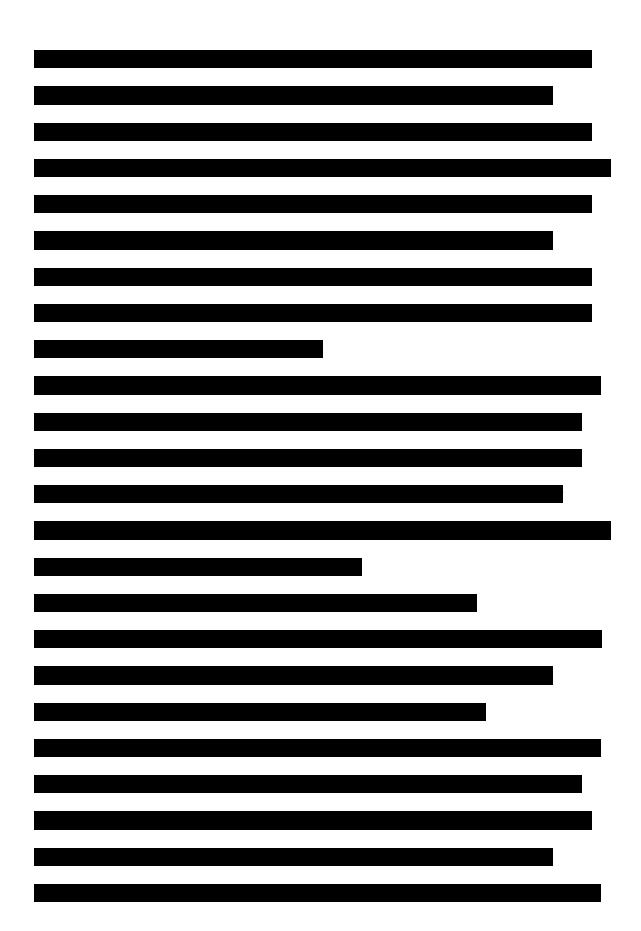












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§ 177.51. Program Requirements

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emission inspected annually in coordination with a safety inspection according to procedures established by the Bureau, subject to the provisions in (1), (2) and (3) below. A safety inspection certificate for a vehicle subject to an emission inspection may not be

affixed until the subject vehicle has passed an emission inspection or received a waiver as provided in § 177.281 (relating to issuance of waiver). The term "safety inspection certificate" as used in this subsection does not include temporary inspection approval indicators as defined in § 175.2

- . Safety inspection stations are not required to conduct emission inspections to maintain certification as safety inspection stations.
 - (1) At such time as the Secretary shall certify, by publication of a notice in the Pennsylvania Bulletin, that the number of subject pre-MY 1996 vehicles

 constitutes less than 40% of the total subject vehicles

 registered in an I/M county or region, subject pre-MY

 1996 vehicles in that I/M county or region shall be

 inspected biennially in coordination with an annual

 safety inspection, provided that emissions in that I/M

 county or region are at or below levels which are in

 compliance with the State Implementation Plan,

 conformity requirements under the Clean Air Act, and the

 I/M performance standard.
 - (2) At such time as the Secretary shall certify, by publication of a notice in the *Pennsylvania Bulletin*, that the number of subject pre-MY 1996 vehicles

registered in an I/M county or region, pre-MY 1996

vehicles shall no longer be subject to the I/M program,

provided that emissions in that I/M county or region are

at or below levels which are in compliance with the

State Implementation Plan, conformity requirements under

the Clean Air Act, and the I/M performance standard.

(3) Nothing in this section shall be construed to relieve any vehicle from the requirements for annual safety inspections under Chapter 175 of Department regulations (67 Pa. Code, Chapter 175).

- (f) Exhaust emission test types. The following test will be administered to the appropriate model years and fuel types, subject to the provisions of (c)(2) above:
 - (1) [Beginning October 1, 1997,] Prior to the date established in accordance with § 177.22, subject vehicles registered in [Bucks, Chester, Delaware, Montgomery and Philadelphia Counties] counties in the Philadelphia Region will be required to undergo the following tests:

Model Year Test Type

1975-1980 vehicles and 1975- One-speed idle test; gas
1983 light duty trucks. cap test; visual inspection.

1981-and newer vehicles ASM 1 (ASM5015); and 1984-and newer light evaporative system

duty trucks. function tests

(pressure, purge and
gas cap test);
visual inspection;

1981 and newer full time all wheel drive vehicles.

Two speed idle test, visual inspection, pressure and gas cap test.

(2) On and after the date established in accordance with § 177.22, subject vehicles MY 1996 and newer registered in counties in the Philadelphia Region will be required to undergo the following tests:

Model Year Test Type

1996 and newer vehicles
8,500 GVWR and under.

OBD—I/M check; gas cap
test.

1996 and newer vehicles
between 8,501 and 9,000

GVWR.

Two speed idle test,
visual inspection and
gas cap test.

All subject vehicles MY 1975-1995 registered in counties in the Philadelphia Region shall be tested in accordance with the following table:

<u>Calendar</u> <u>Year</u>	Model Year	Test Type
2003	1975-1977 vehicles and light duty trucks.	Gas cap test; visual inspection.
	1978-1980 vehicles and 1978-1983 light duty trucks.	One-speed idle test; gas cap test; visual inspection
	1981-1995 vehicles and 1984-1995 light duty trucks.	ASM 1 (ASM5015); evaporative system function test (pressure purge and gas cap test); visual inspection

		Т	
	1981-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure and gas cap test.	
2004	1975-1978 vehicles and light duty trucks.	Gas cap test; visual inspection.	
	1979-1980 vehicles and 1979-1983 light duty trucks.	One-speed idle test; gas cap test; visual inspection.	
	1981-1995 vehicles and 1984-1995 light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.	
	1981-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.	
2005	1975-1979 vehicles and light duty trucks.	Gas cap test; visual inspection.	
	1980 vehicles and 1980-1983 light duty trucks.	One-speed idle test; gas cap test; visual inspection.	
	1981-1995 vehicles and 1984-1995 light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.	
	1981-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.	
2006	1975-1980 vehicles and light duty trucks.	Gas cap test; visual inspection.	
	1981-1983 light duty trucks.	One speed idle test; gas cap test; visual inspection	
	1981-1995 vehicles and 1984-1995 light duty trucks	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.	
	1981-1995 full time all	Two speed idle test; visual	

	wheel drive vehicles.	ingrestion: proggure purge
	wheel drive vehicles.	inspection; pressure purge and gas cap test.
<u>2007</u>	1975-1981 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.
	1982-1983 light duty trucks. 1982-1995 vehicles and 1984-1995 light duty trucks.	One speed idle test; gas cap test; visual inspection. ASM 1 (ASM5015); evaporative system function test(pressure
		purge and gas cap test); visual inspection.
	1982-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.
2008	1975-1982 vehicles, light	Gas cap test; visual
	duty trucks and full time all wheel drive vehicles.	inspection.
	1983 light duty trucks.	One speed idle test; gas cap test; visual inspection.
	1983-1995 vehicles and 1984-1995 light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.
	1983-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.
2009	1975-1983 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.
	1984-1995 vehicles and light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.
	1984-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.
2010	1975-1984 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.
	1985-1995 vehicles and light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure

		<pre>purge and gas cap test); visual inspection.</pre>
	1985-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.
2011	1975-1985 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.
	1986-1995 vehicles and light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.
	1986-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.
2012	1975-1986 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.
	1987-1995 vehicles and light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.
	1987-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.
2013	1975-1987 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.
	1988-1995 vehicles and light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.
	1988-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.
2014	1975-1988 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.
	1989-1995 vehicles and light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.
	1989-1995 full time all	Two speed idle test; visual

	wheel drive vehicles.	inspection; pressure purge
		and gas cap test.
2015	1975-1989 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.
	1990-1995 vehicles and light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.
	1990-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.
2016	1975-1990 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.
	1991-1995 vehicles and light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.
	1991-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.
2017	1975-1991 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.
	1992-1995 vehicles and light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.
	1992-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.
2018	1975-1992 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.
	1993-1995 vehicles and light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.
	1993-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.

2019	1975-1993 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.
	1994-1995 vehicles and light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.
	1994-1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.
2020	1975-1994 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.
	1995 vehicles and light duty trucks.	ASM 1 (ASM5015); evaporative system function test(pressure purge and gas cap test); visual inspection.
	1995 full time all wheel drive vehicles.	Two speed idle test; visual inspection; pressure purge and gas cap test.
2021 and thereafter.	1975-1995 vehicles, light duty trucks and full time all wheel drive vehicles.	Gas cap test; visual inspection.

(3) [Beginning October 1, 1997] Prior to the date established in accordance with § 177.22, subject vehicles registered in [Beaver, Allegheny, Washington and Westmoreland Counties] counties in the Pittsburgh Region will be required to undergo the following tests:

Model Year Test Type

1975-1980 One-speed idle test; gas

cap test; visual

inspection.

1981-and newer Two-speed idle test, gas

cap test; visual

inspection.

(4) On and after the date established in accordance with § 177.22, subject vehicles MY 1996 and newer registered in counties in the Pittsburgh Region will be required to undergo the following tests:

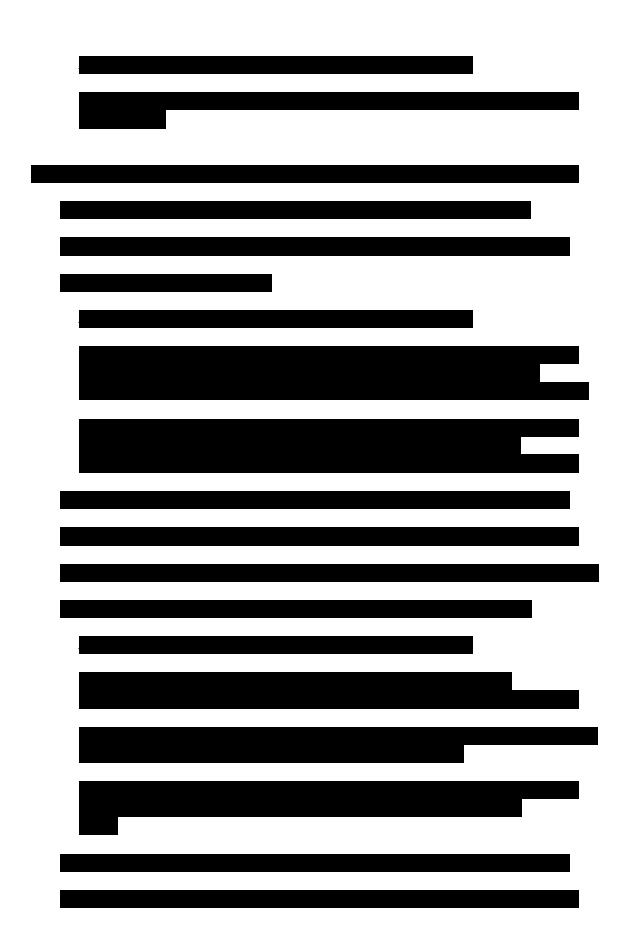
<u>Model Year</u>	<u>Test Type</u>
1996 and newer vehicles 8,500 GVWR and under.	OBD-I/M check; gas cap test.
1996 and newer vehicles between 8,501 and 9,000 GVWR.	Two speed idle test, visual inspection and gas cap test.

All subject vehicles MY 1975-1995 registered in counties in the Pittsburgh Region shall be tested in accordance with the following table:

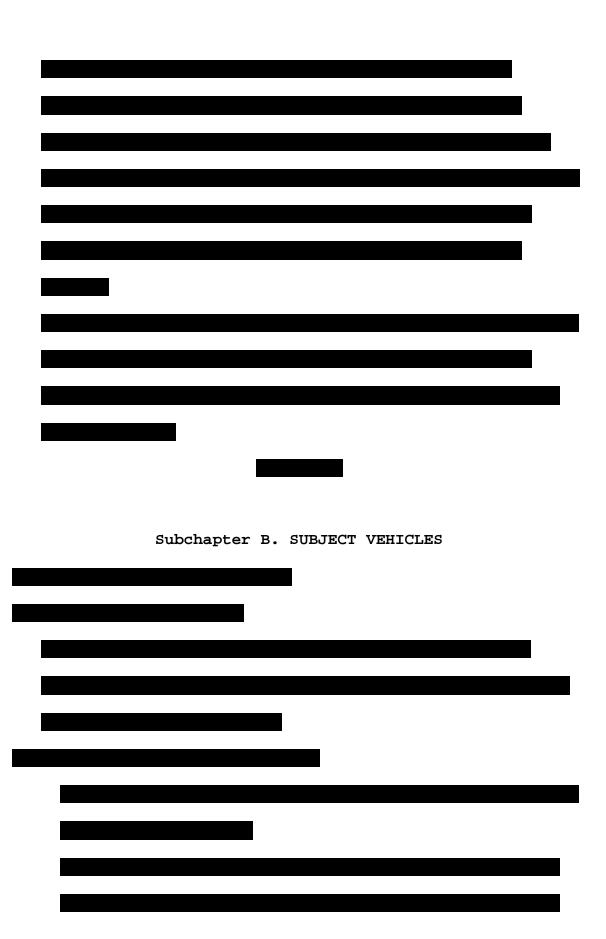
<u>Calendar</u> <u>Year</u>	Model Year	<u>Test Type</u>
2003	1975-1977 vehicles.	Gas cap test; visual inspection.
	1978-1980 vehicles.	One-speed idle test; gas cap test; visual inspection.
	<u>1981-1995 vehicles.</u>	Two-speed idle test; gas cap test; visual inspection.
2004	1975-1978 vehicles.	Gas cap test; visual inspection.
	1979-1980 vehicles.	One-speed idle test; gas cap test; visual inspection.
	<u>1981-1995 vehicles.</u>	Two speed idle test; gas cap test; visual inspection.
2005	1975-1979 vehicles.	Gas cap test; visual

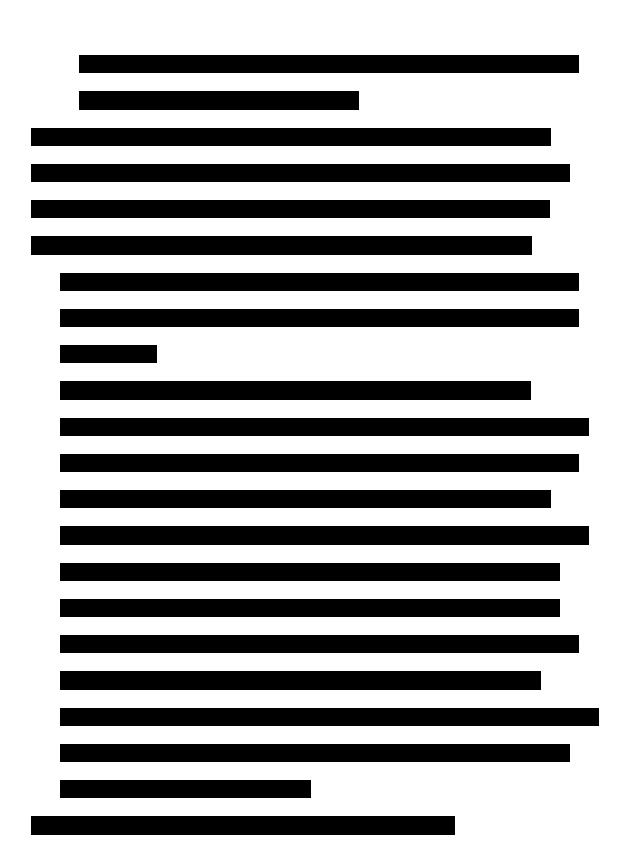
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		inspection.
	1980 vehicles.	One-speed idle test; gas cap test; visual inspection.
	1981-1995 vehicles.	Two speed idle test; gas cap test; visual inspection.
2006	1975-1980 vehicles.	Gas cap test; visual inspection.
	1981-1995 vehicles.	Two speed idle test; gas cap test; visual inspection.
2007	1975-1981 vehicles.	Gas cap test; visual inspection.
	1982-1995 vehicles.	<pre>Two speed idle test; gas cap test; visual inspection.</pre>
2008	1975-1982 vehicles.	Gas cap test; visual inspection.
	<u>1983-1995</u> vehicles.	Two speed idle test; gas cap test; visual inspection.
2009	1975-1983 vehicles.	Gas cap test; visual inspection.
	<u>1984-1995</u> vehicles.	Two speed idle test; gas cap test; visual inspection.
2010	1975-1984 vehicles.	Gas cap test; visual inspection.
	1985-1995 vehicles.	Two speed idle test; gas cap test; visual inspection.
2011	1975-1985 vehicles.	Gas cap test; visual inspection.
	<u>1986-1995 vehicles.</u>	<pre>Two speed idle test; gas cap test; visual inspection.</pre>
2012	1975-1986 vehicles.	Gas cap test; visual inspection.
	<u>1987-1995 vehicles.</u>	Two speed idle test; gas cap test; visual inspection.
2013	1975-1987 vehicles.	Gas cap test; visual inspection.
	1988-1995 vehicles.	Two speed idle test; gas cap test; visual inspection.

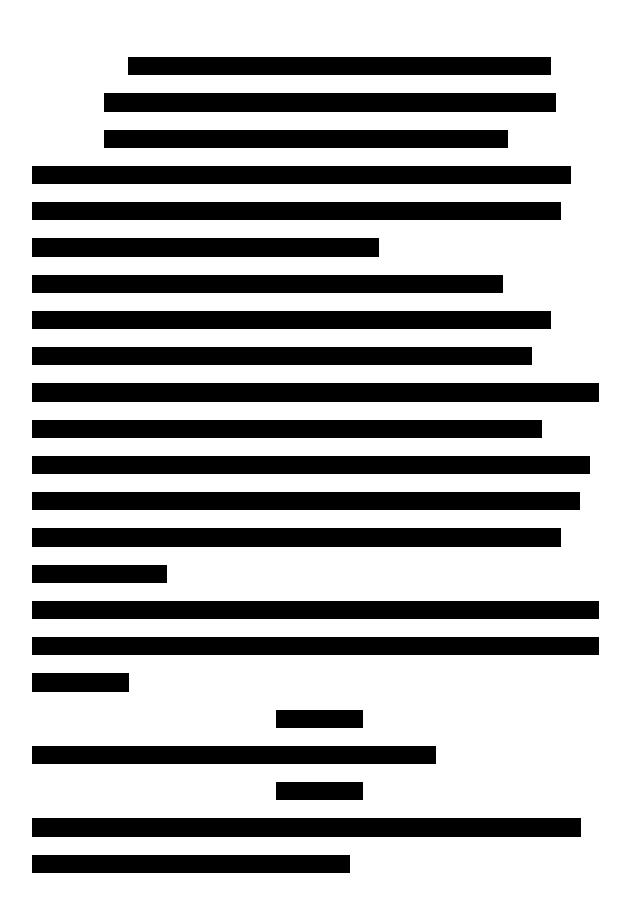
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2014	1975-1988 vehicles.	Gas cap test; visual inspection.
	1989-1995 vehicles.	Two speed idle test; gas cap test; visual inspection.
2015	1975-1989 vehicles.	Gas cap test; visual inspection.
	1990-1995 vehicles.	Two speed idle test; gas cap test; visual inspection.
2016	1975-1990 vehicles.	Gas cap test; visual inspection.
	1991-1995 vehicles.	Two speed idle test; gas cap test; visual inspection.
2017	1975-1991 vehicles.	Gas cap test; visual inspection.
	1992-1995 vehicles.	Two speed idle test; gas cap test; visual inspection.
2018	1975-1992 vehicles.	Gas cap test; visual inspection.
	1993-1995 vehicles.	Two speed idle test; gas cap test; visual inspection.
2019	1975-1993 vehicles.	Gas cap test; visual inspection.
	1994-1995 vehicles.	Two speed idle test; gas cap test; visual inspection.
2020	1975-1994 vehicles.	Gas cap test; visual inspection.
	1995 vehicles.	Two speed idle test; gas cap test; visual inspection.
2021 and thereafter.	1975-1995 vehicles	Gas cap test; visual inspection.

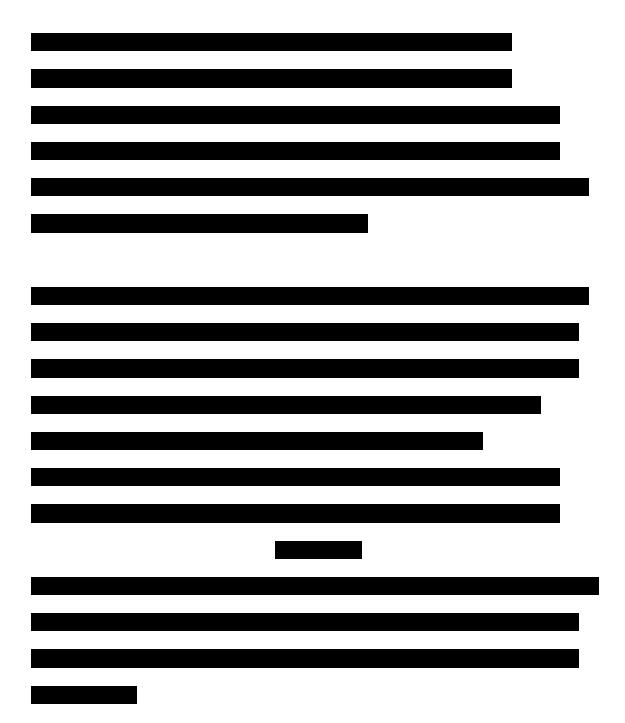


[(5)](7) One-speed and two-speed idle testing shall be as described in 40 CFR Part 51, Subpart S, Appendix B (I and II)(relating to one and two-speed idle tests), which is adopted by reference[, and Appendix A, acceleration simulation mode Pennsylvania procedures, standards, equipment specifications and quality control requirements].





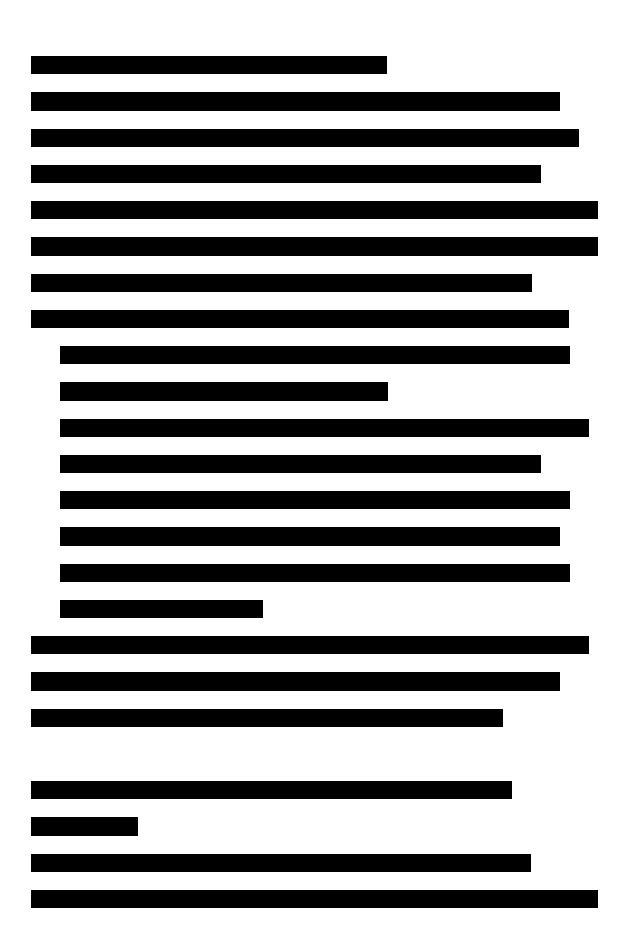


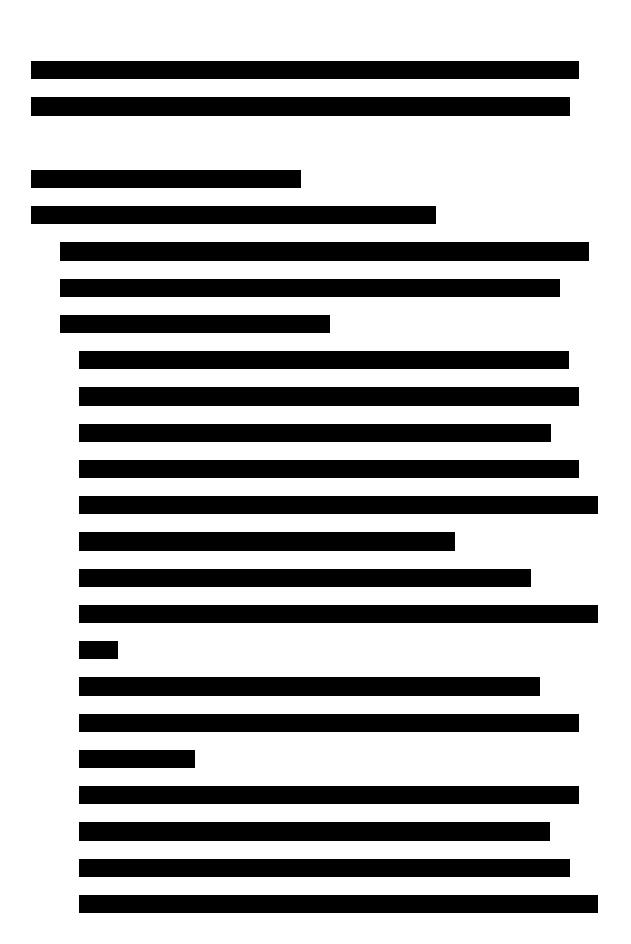


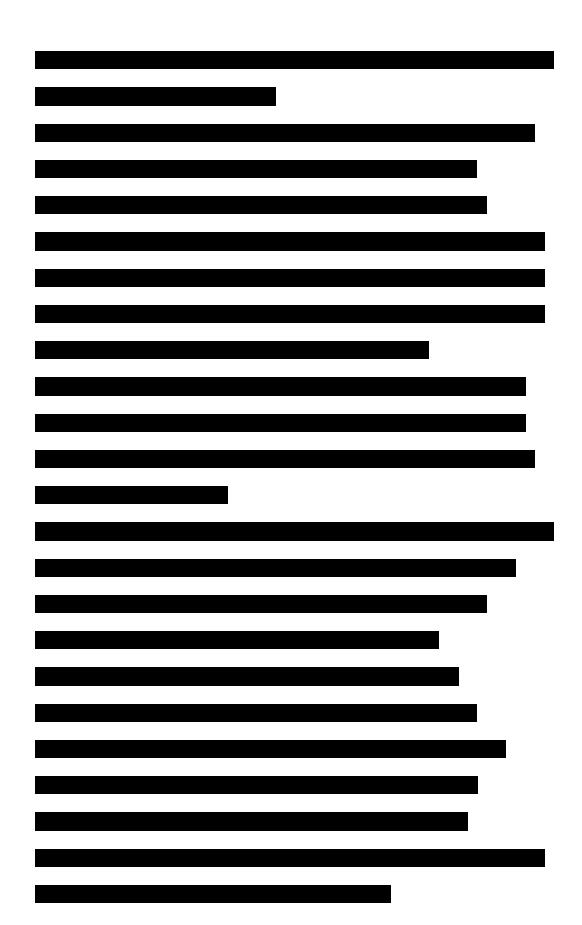
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Subchapter C. EMISSION TEST PROCEDURES AND EMISSION STANDARDS GENERAL

§	177.202.	Emission	test	equipment	: .	







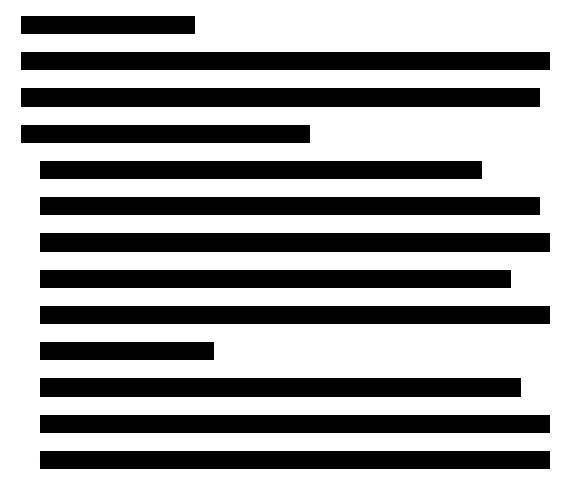


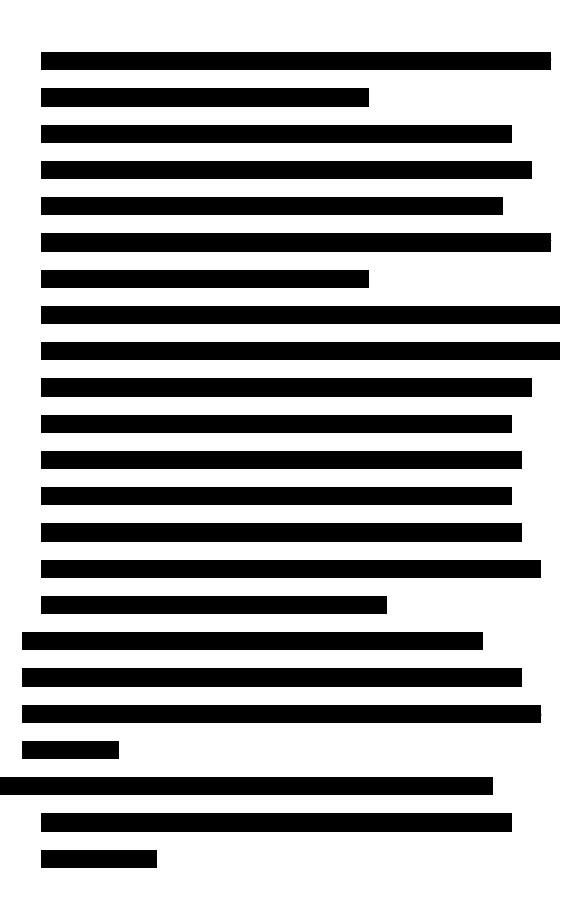
procedures.

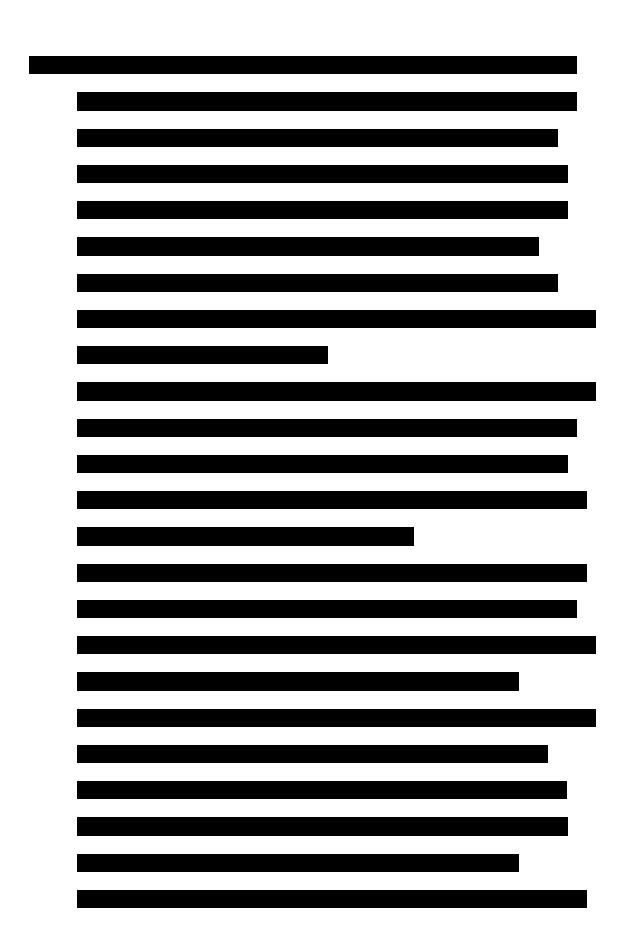
(3) Evaporative system function tests. Evaporative system functions tests, including an evaporative system pressure test and an evaporative system purge test on 1981 and newer model year subject vehicles, shall be administered on subject vehicles registered in Bucks, Chester, Delaware, Montgomery and Philadelphia counties upon notification to the Department of EPA approved

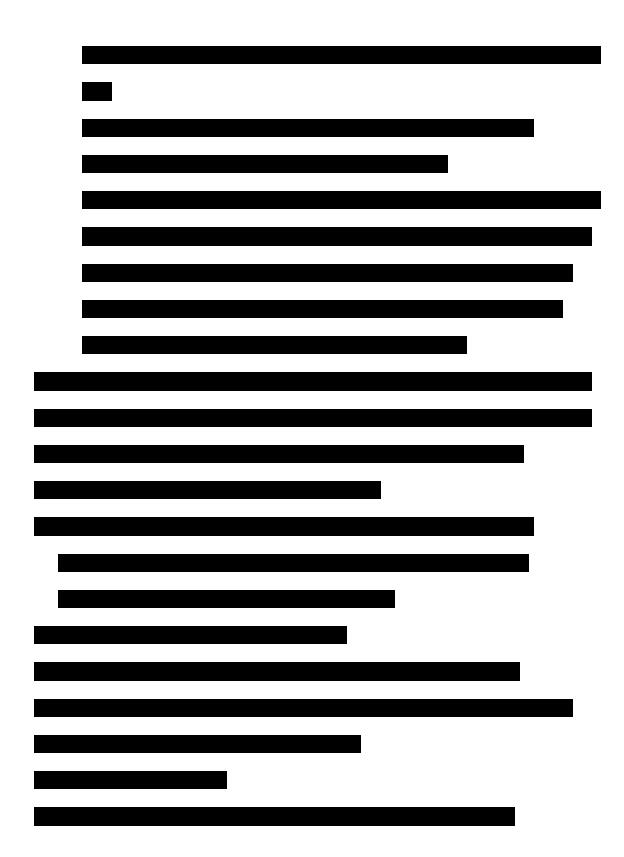
procedures and will be conducted based on the procedures approved by the Department. [A gas cap test will be administered on all 1975 and newer model year vehicles subject to the enhanced emission test.

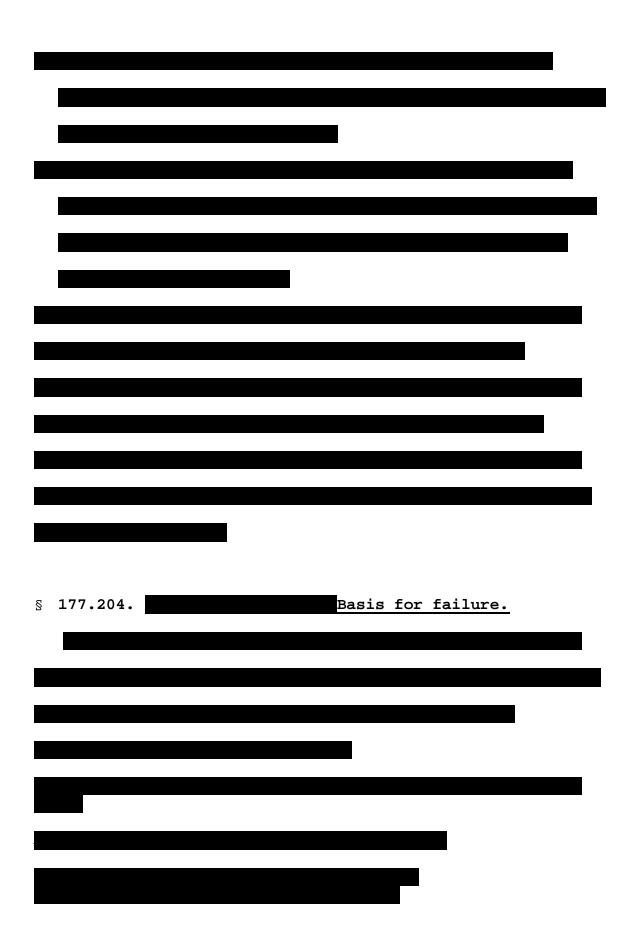
(4) Subsequent test procedures approved by the EPA. If the EPA develops or approves other test procedures, including test procedures prescribed in this section, the Department may adopt these subsequently approved test procedures consistent with section 4706(e) of the Vehicle Code (relating to prohibition on expenditures for emission inspection program).]













- (1) [Enhanced I/M program area] I/M emission

 test. A vehicle fails the I/M emission test if emissions

 exceed the following standards:
 - (i) Idle test standards.
 - (A) Passenger cars and trucks less than 6,000 pounds GVWR.

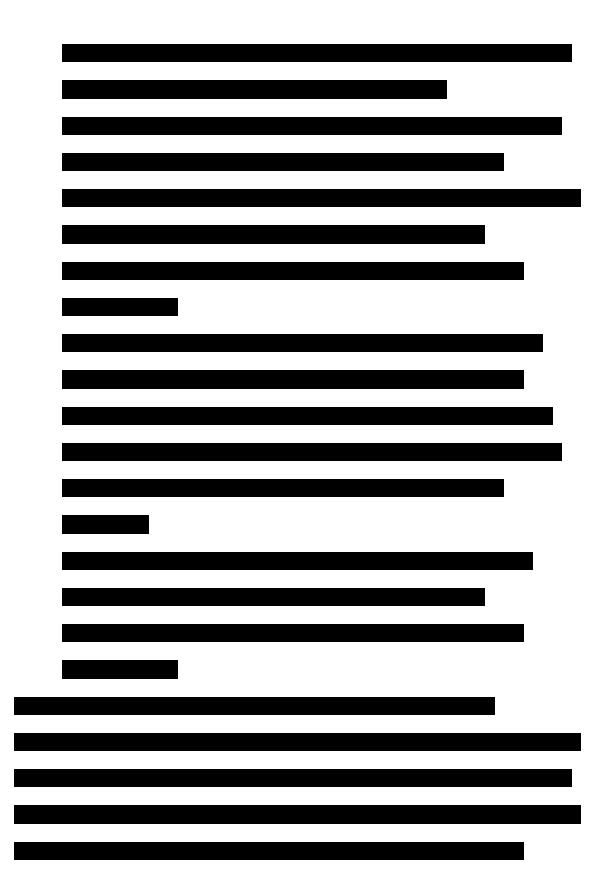
MODEL YEAR	CO%	HC (PPM)
1975-1979	4.0	400
1980	3.0	300
1981-1992	1.2	220
1993 and newer	1.0	130

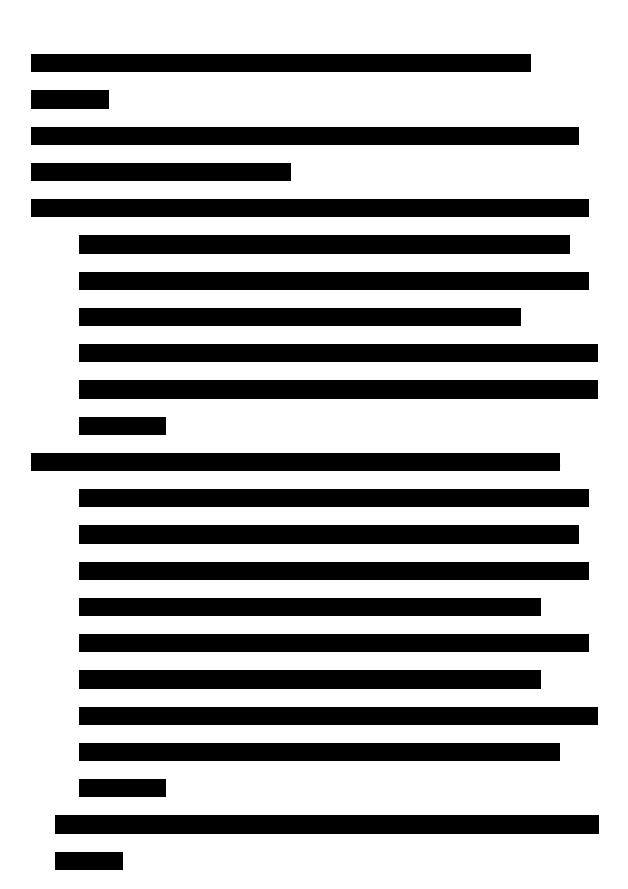
(B) Trucks 6,000 pounds through 9,000 pounds GVWR.

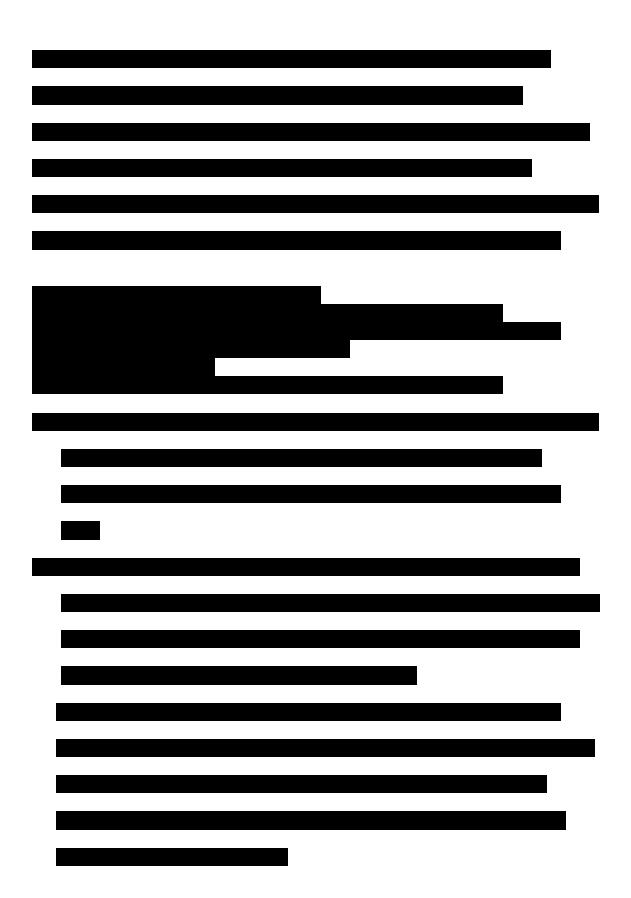
MODEL YEAR	CO%	HC (PPM)
[1975-1978	6.0	650]
1975-1978	6.0	650
1979	4.0	400
1980	3.0	300
1981-1992	1.2	220
1993 and newer	1.0	180

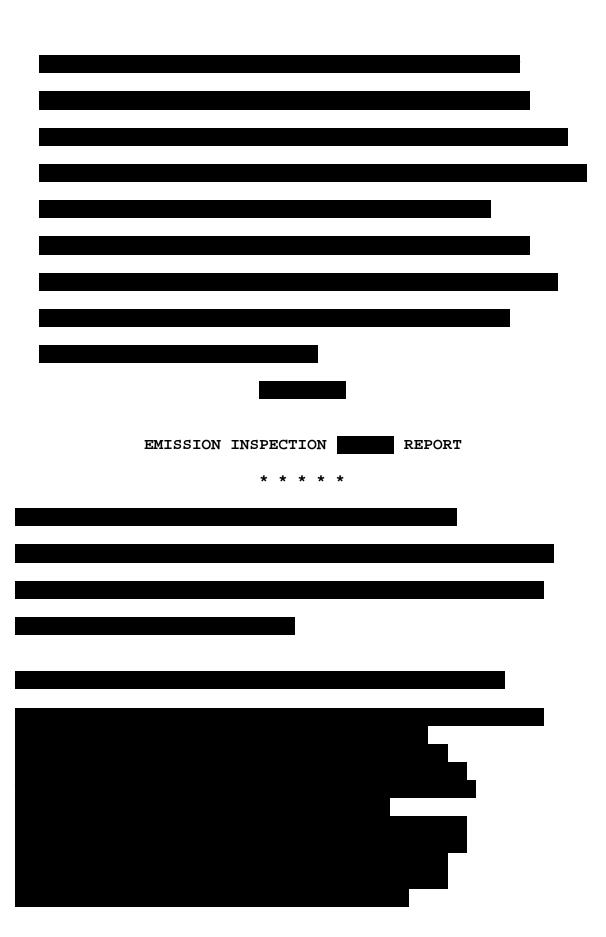
- (C) Maximum exhaust dilution shall be measured as at least 6% CO plus CO2 on vehicles subject to a steady-state test as described in 40 CFR Part 51, Subpart S, Appendix B (relating to test procedures), which is adopted by reference.
- (ii) ASM test emission standards.

Model years 1981 and newer vehicles required to receive an ASM emission inspection shall be subject to standards specified in Appendix A (relating to acceleration simulation mode: Pennsylvania procedures, standards, equipment specifications and quality control requirements). [This includes both phase in and final test standards.]

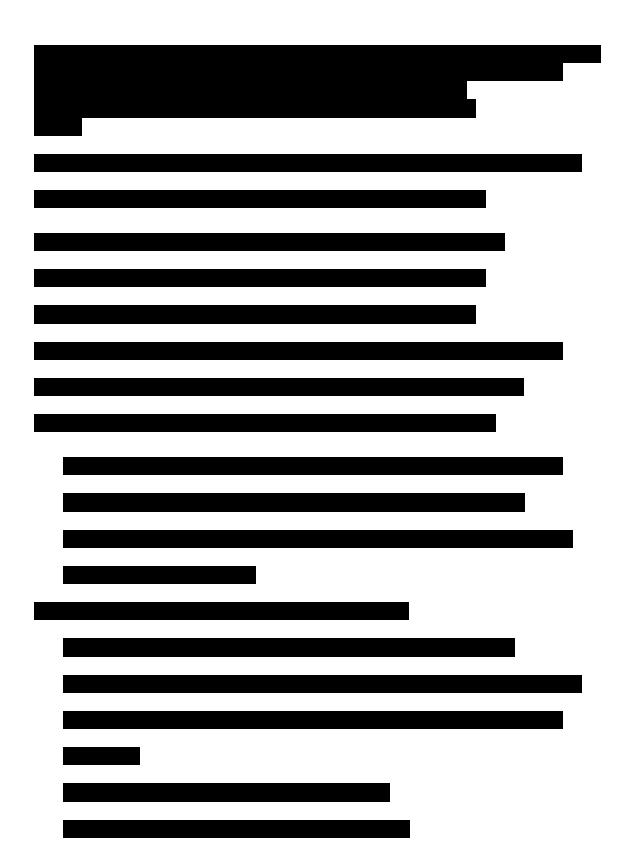


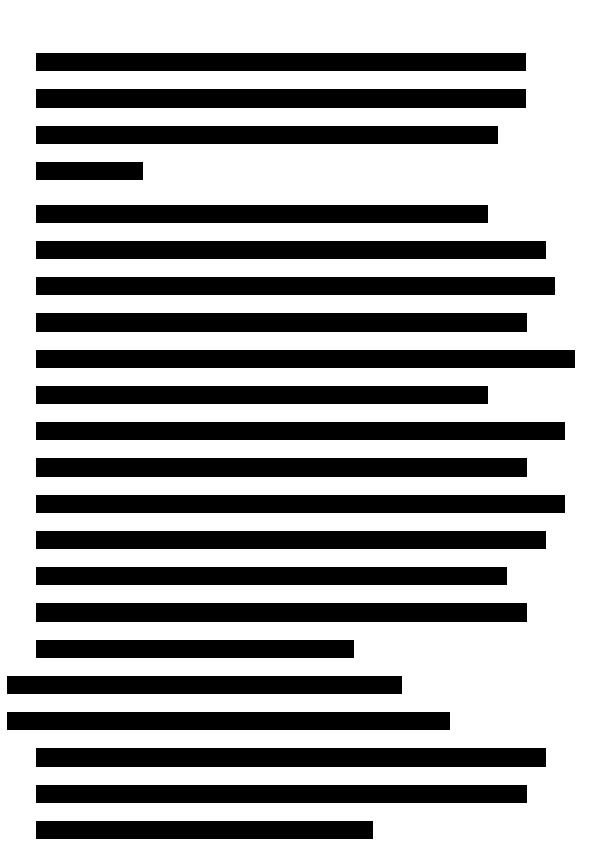


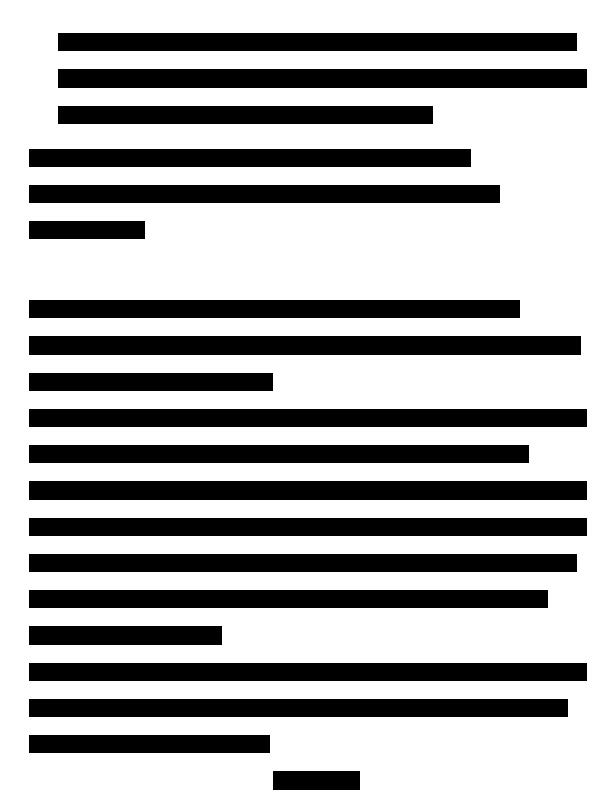




67 Pa. Code, Chapter 177
Emission Inspection Program
Annex A





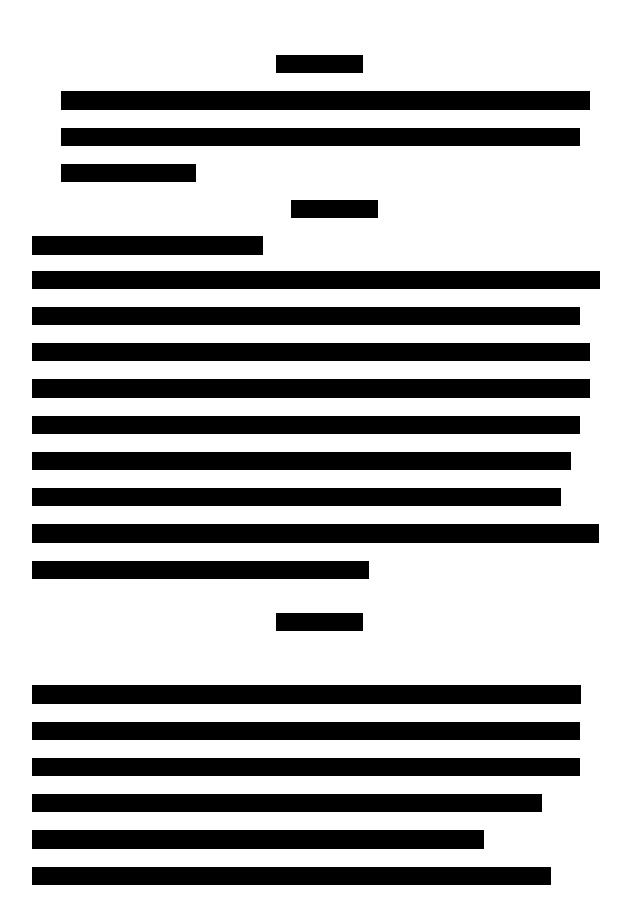


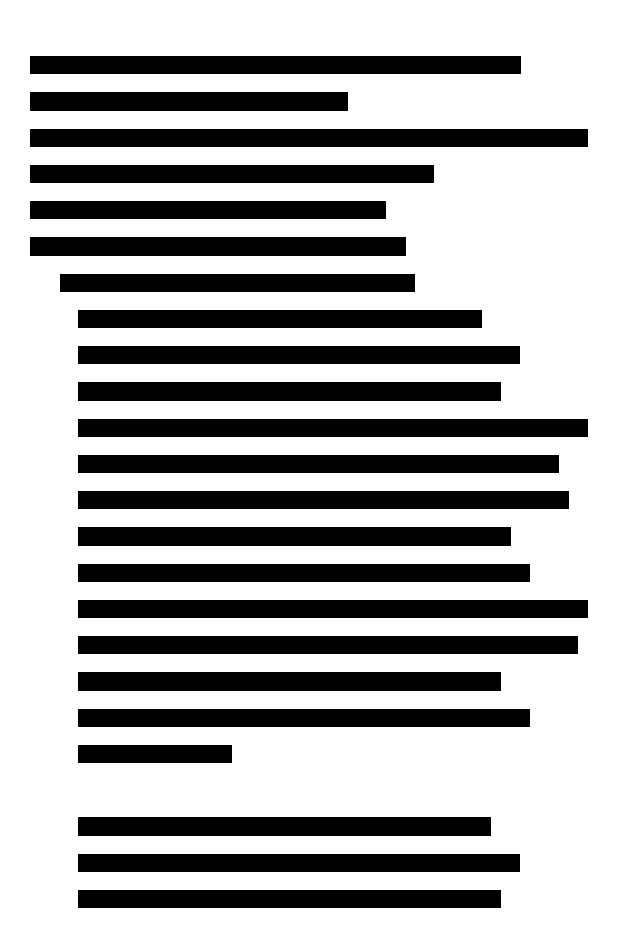
RETEST

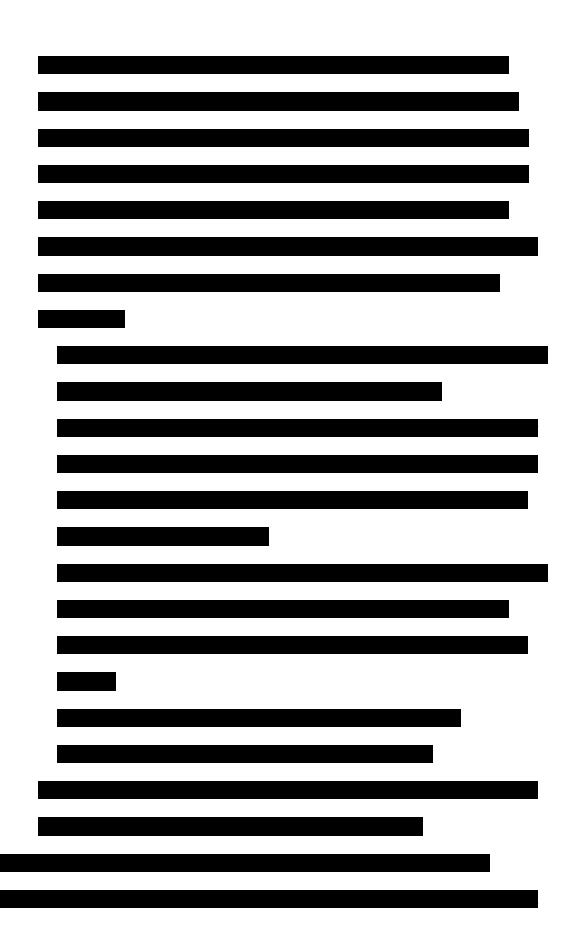
§ 177.271. Procedure.

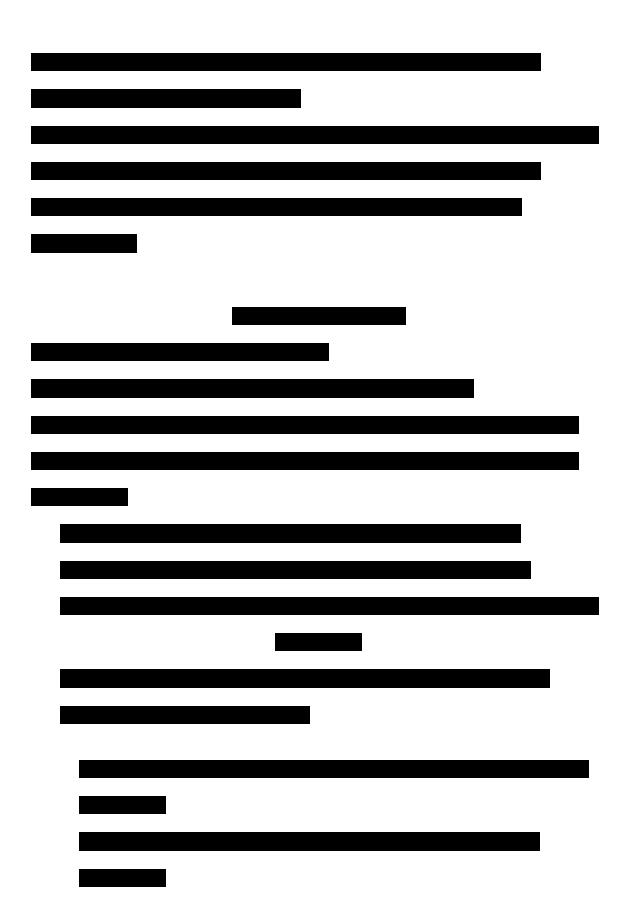
<u>I/M emission</u> test or a retest shall be retested after
repair[to determine if the repairs were effective for any
portion of the inspection that was failed on the previous
test. To the extent that repair to correct a previous
failure could lead to failure of another portion of the
test, that portion shall also be retested].

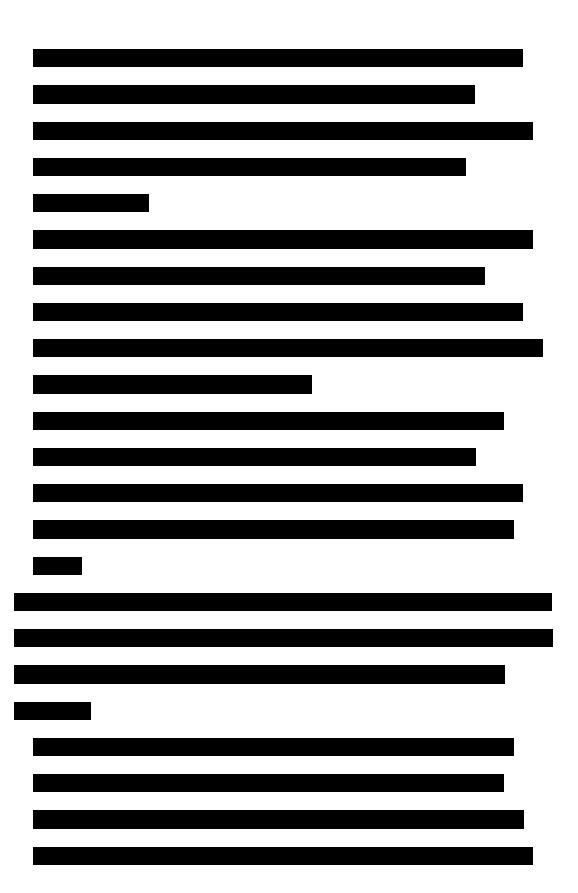
(a) I/M emission test. Vehicles that fail the initial

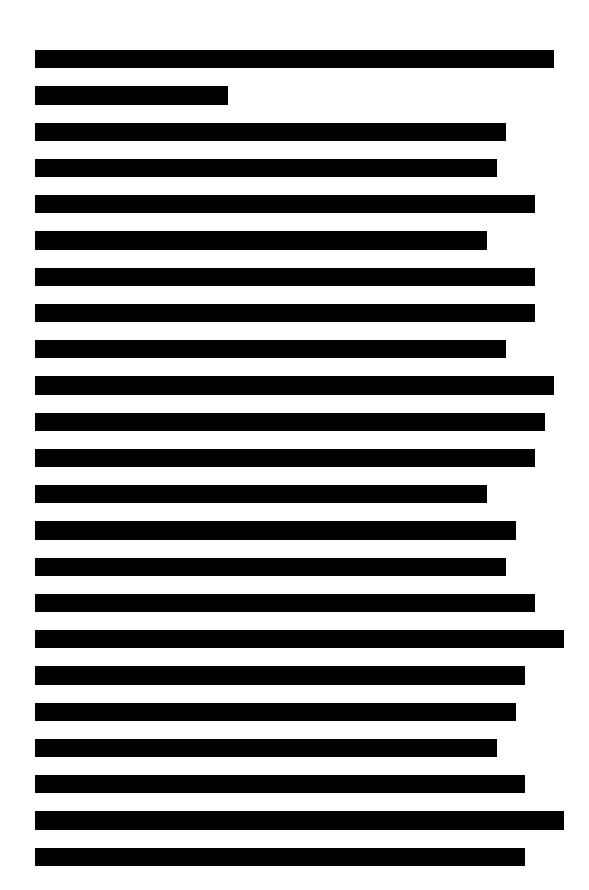


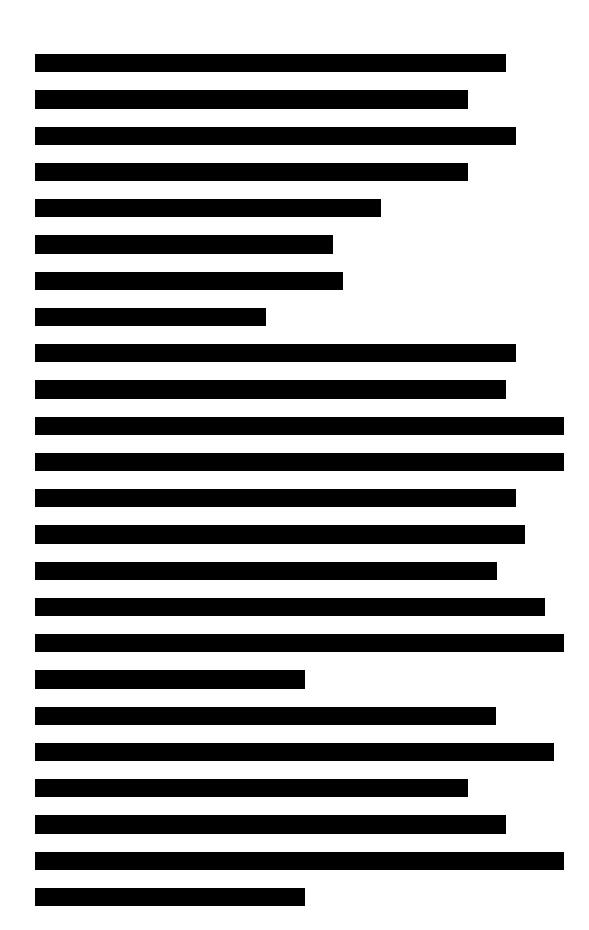


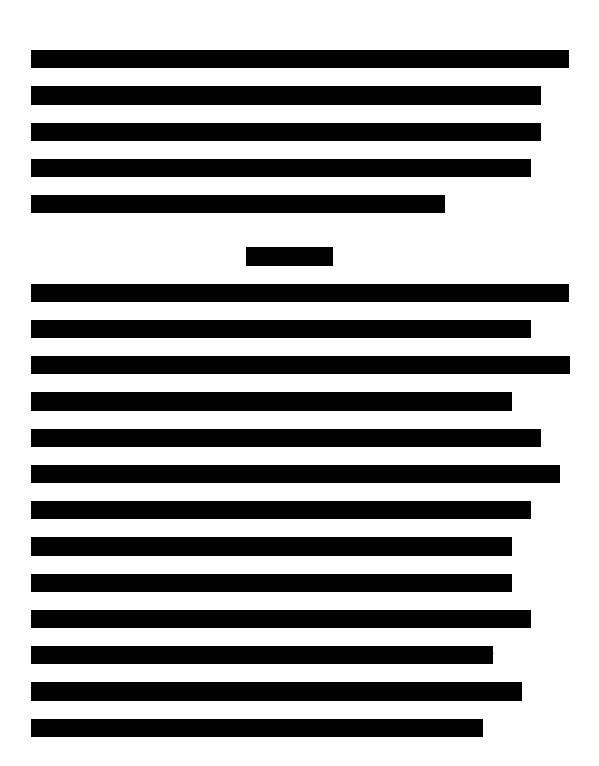


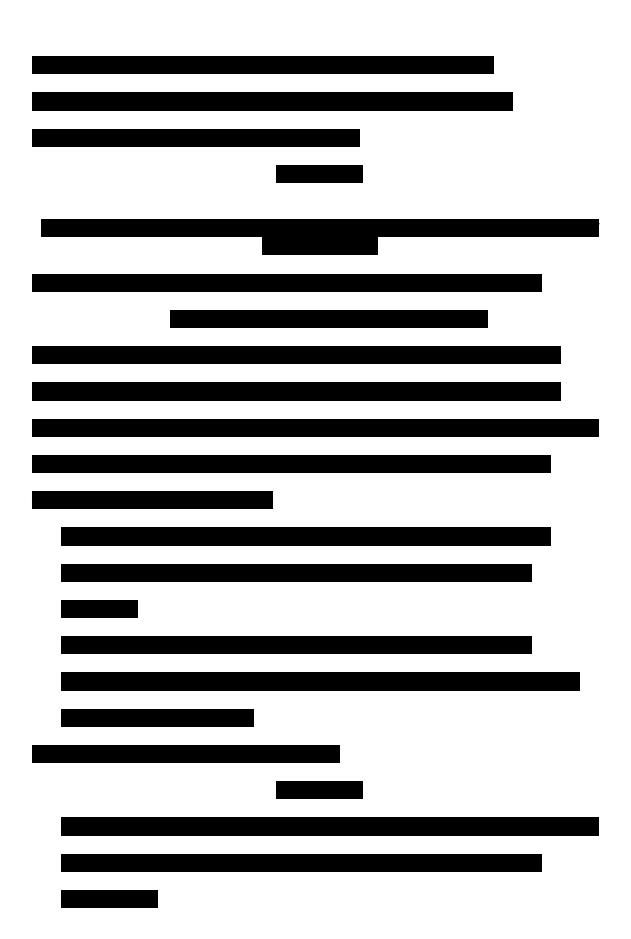


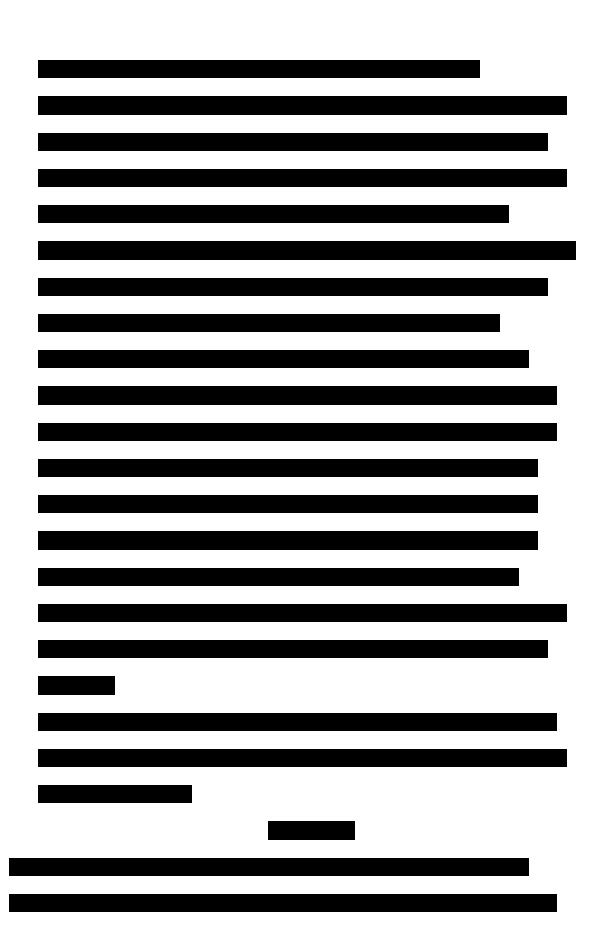


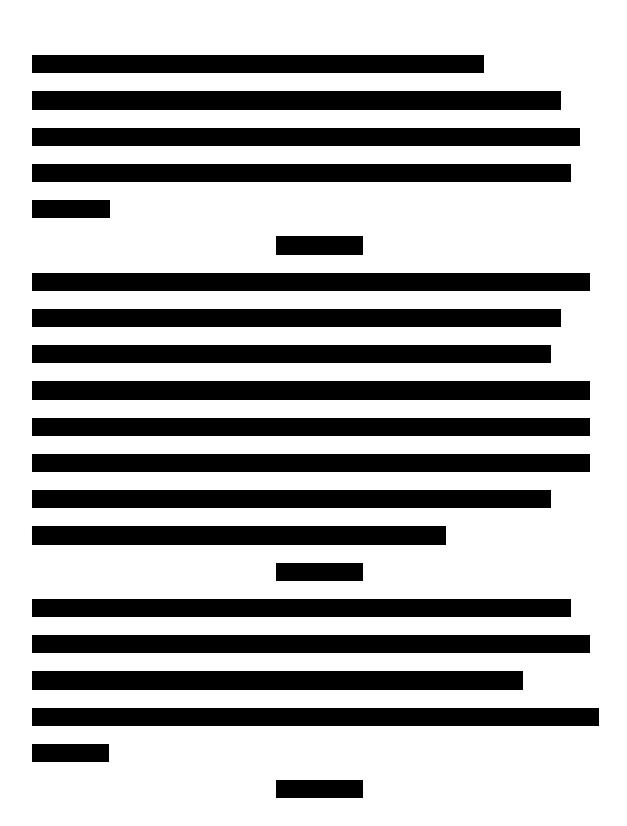


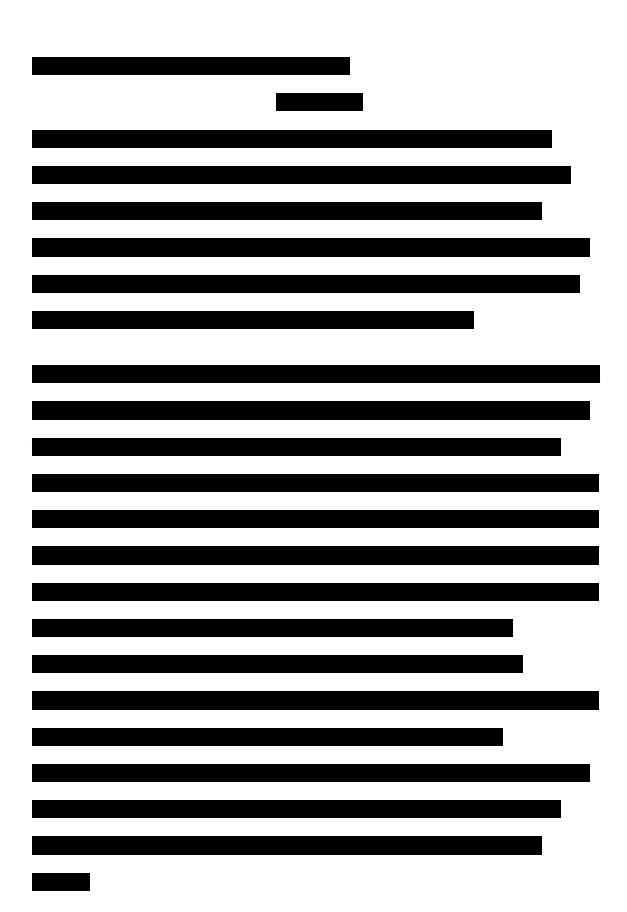


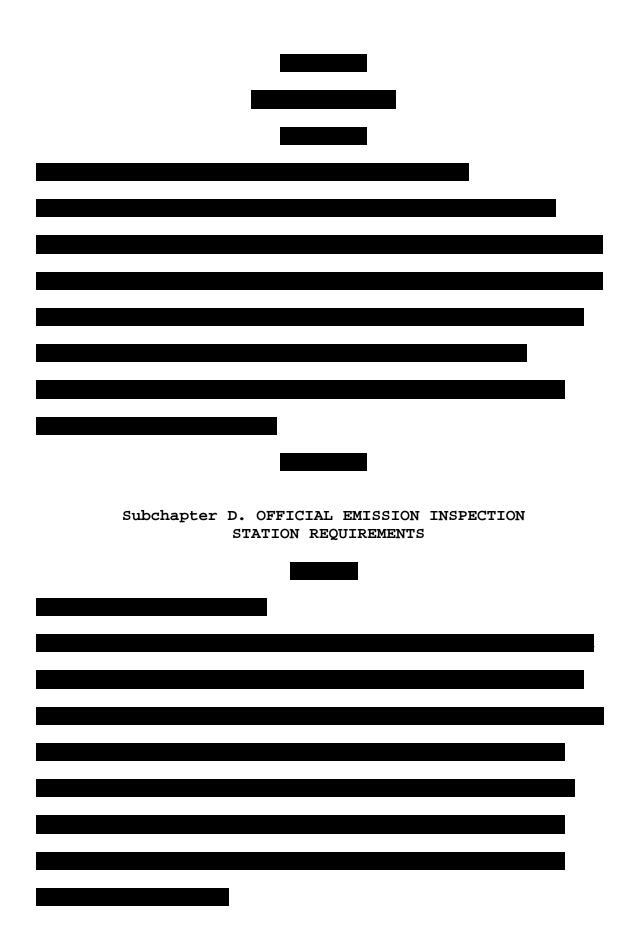


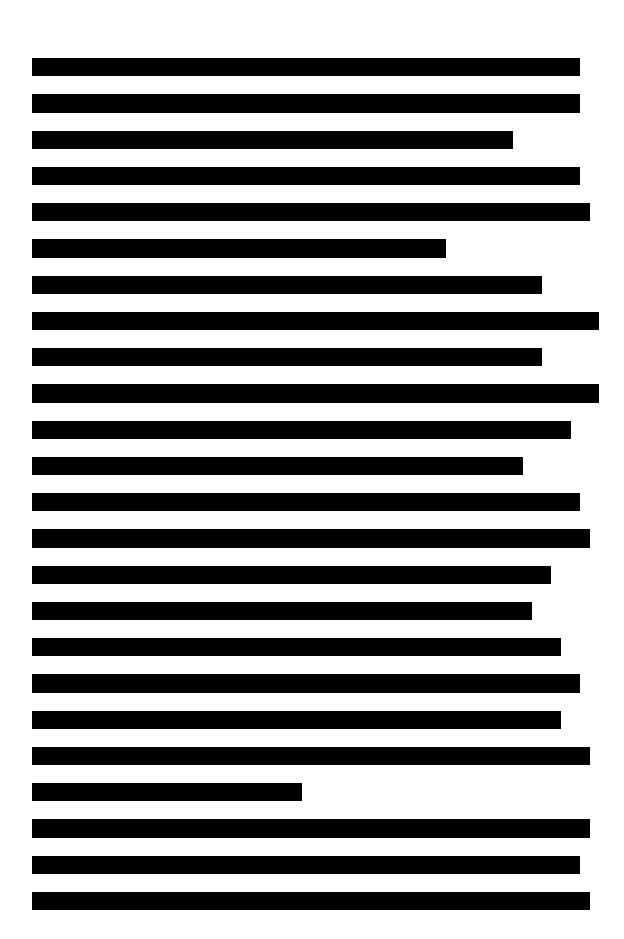


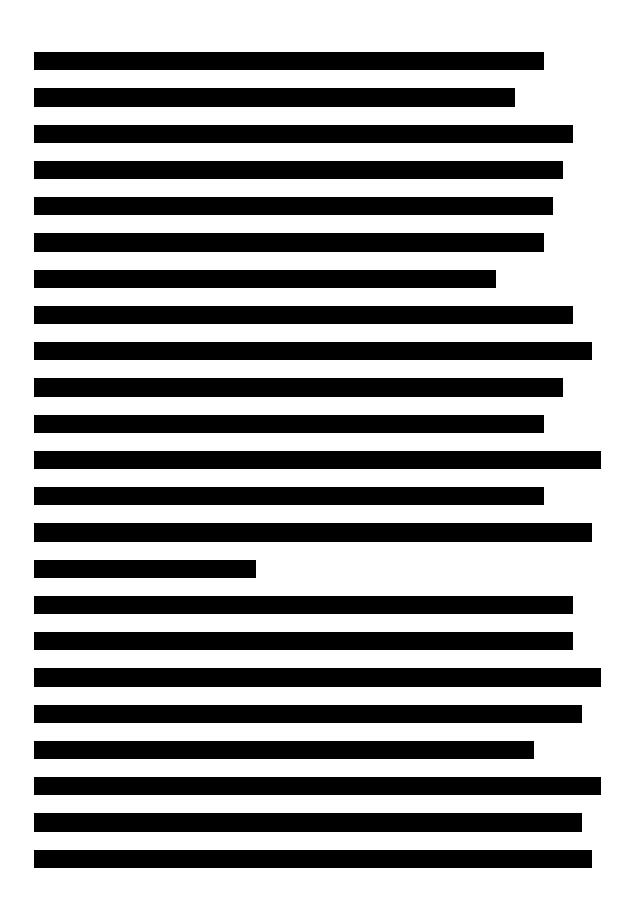


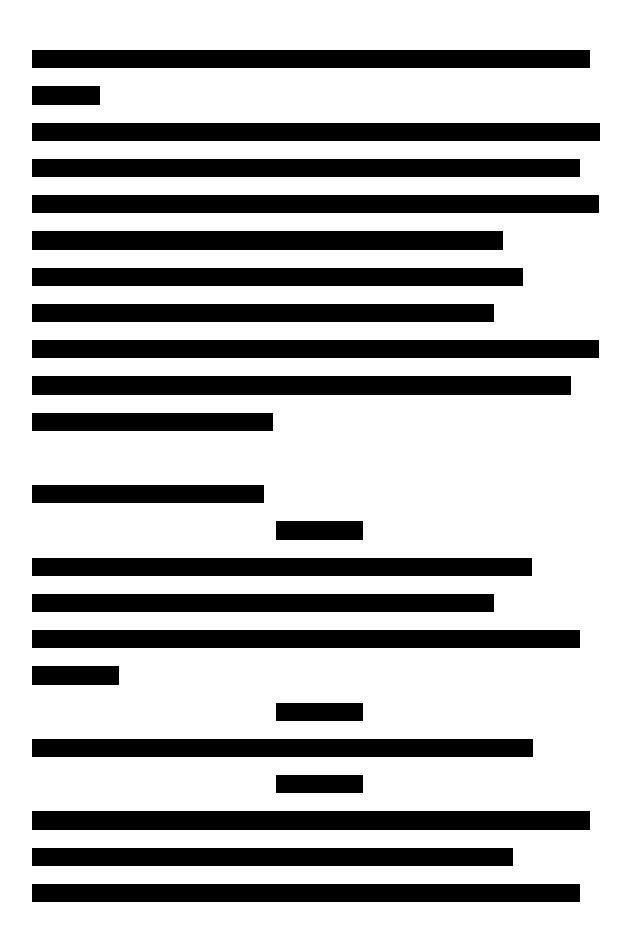


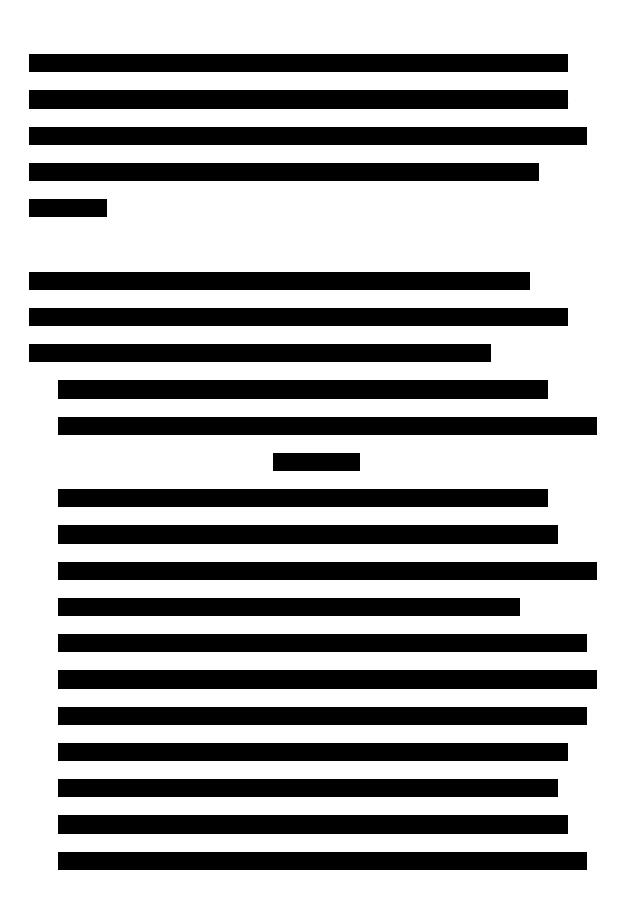


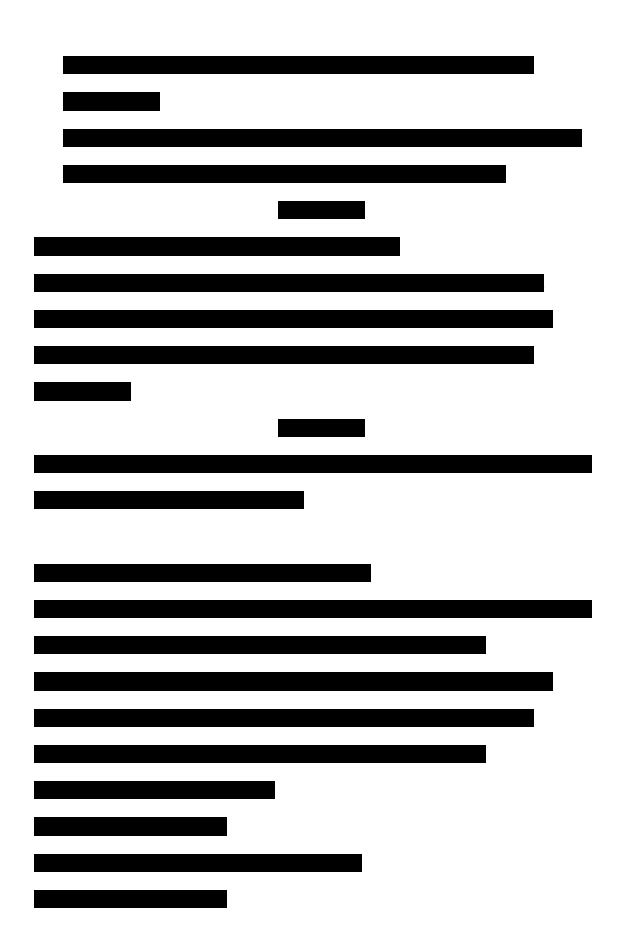


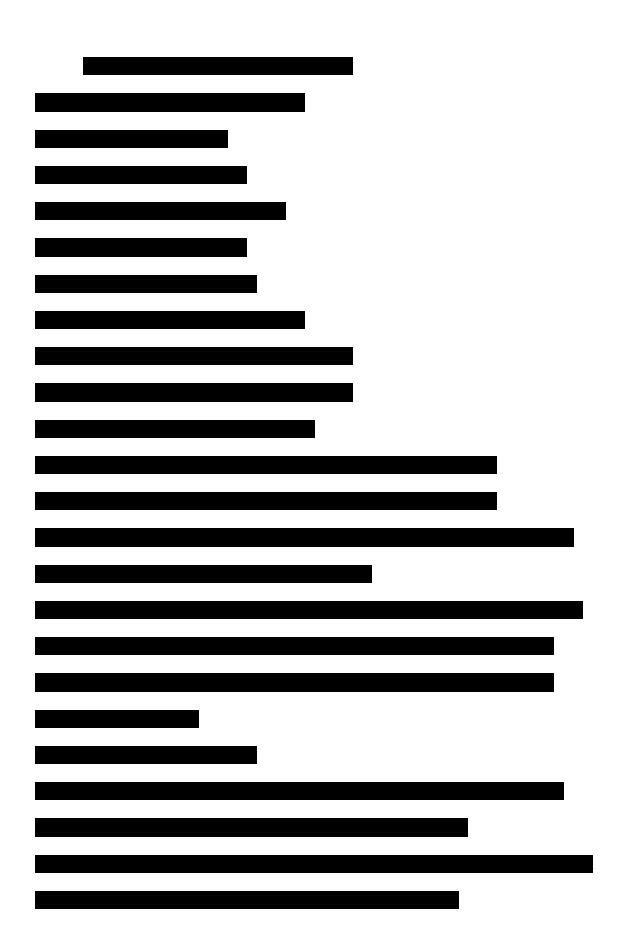


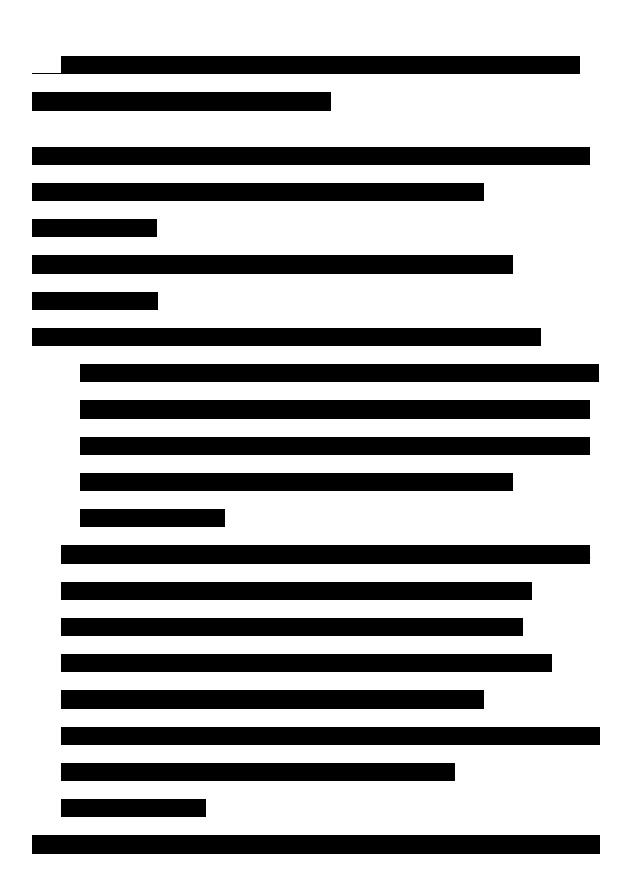


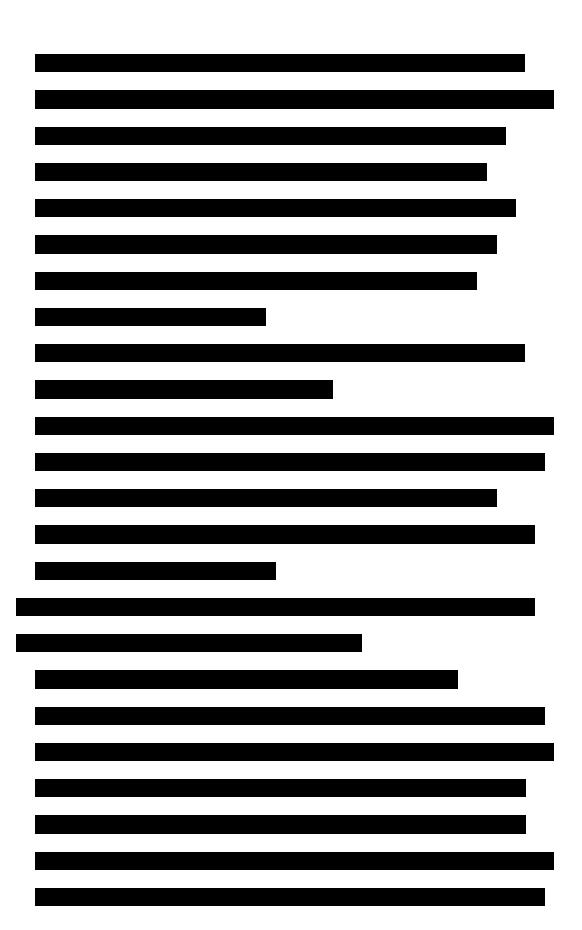


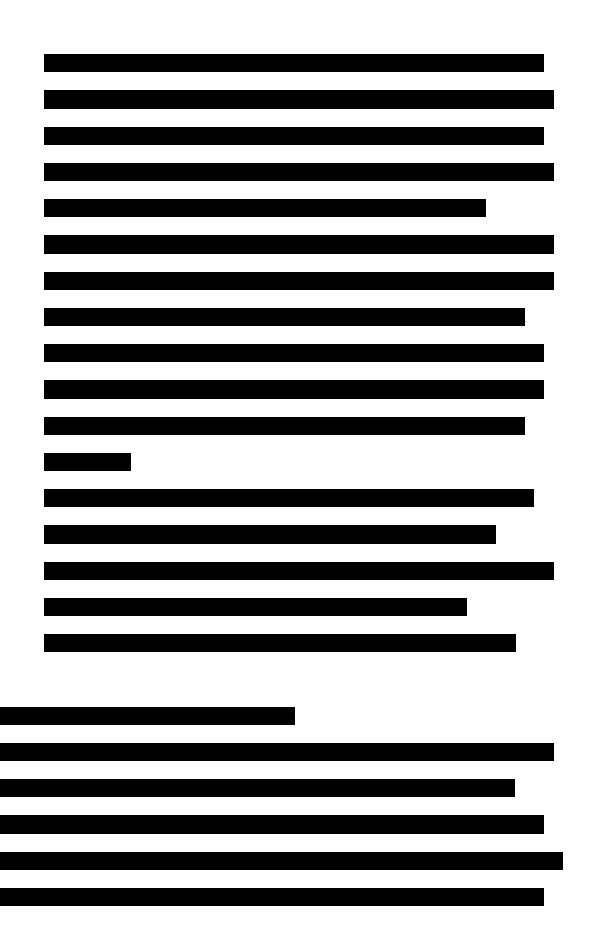


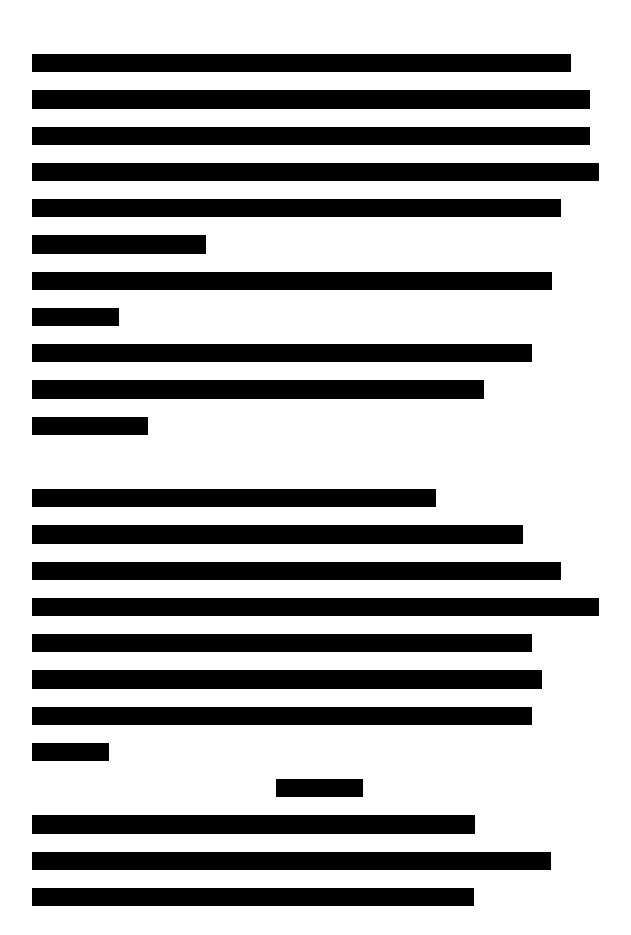


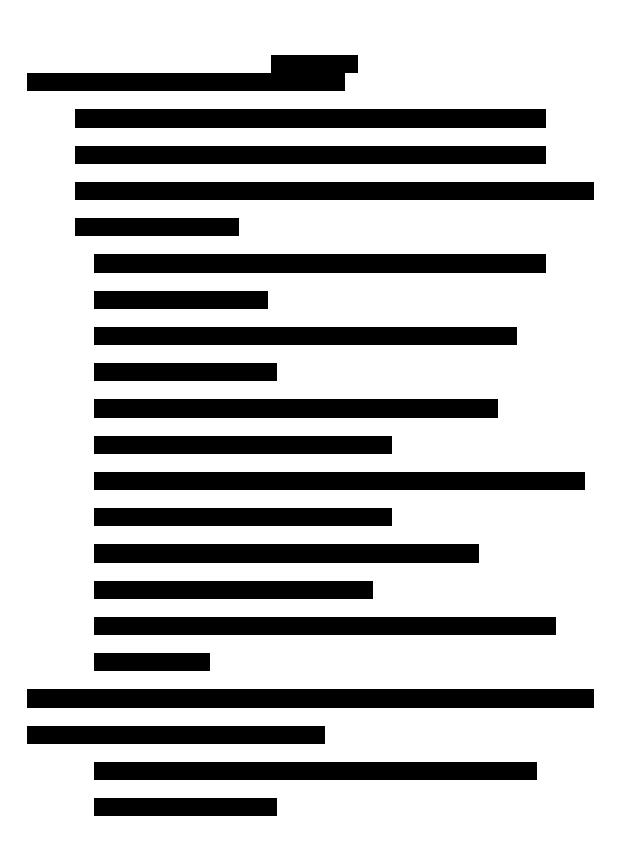


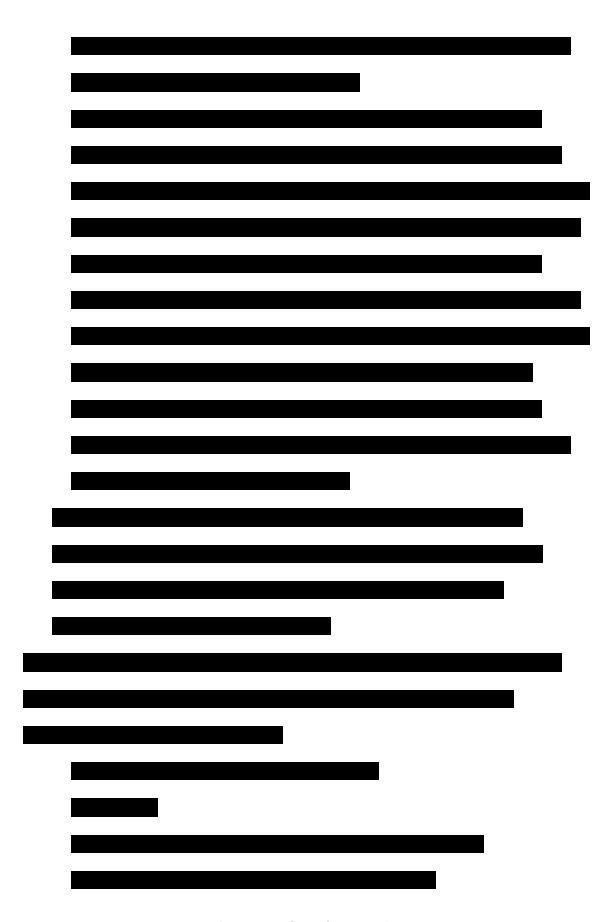


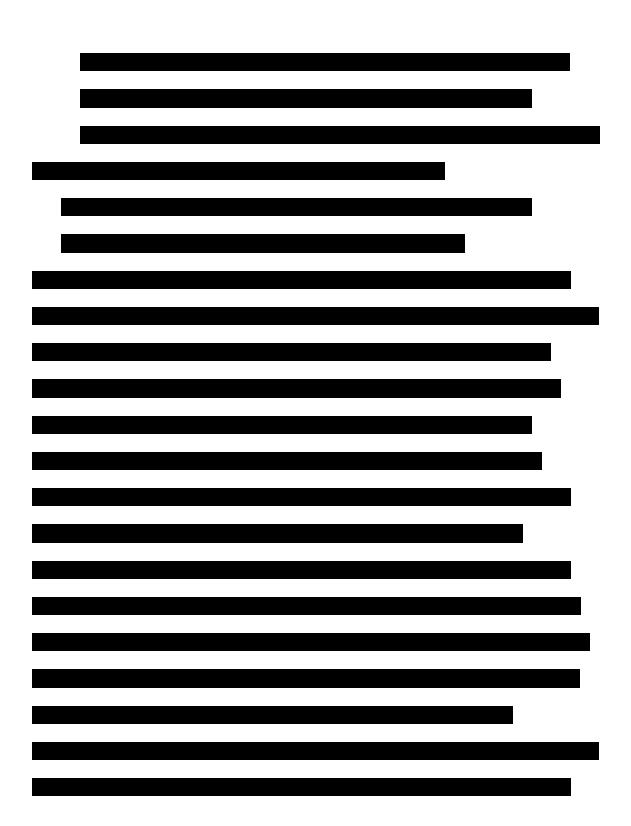


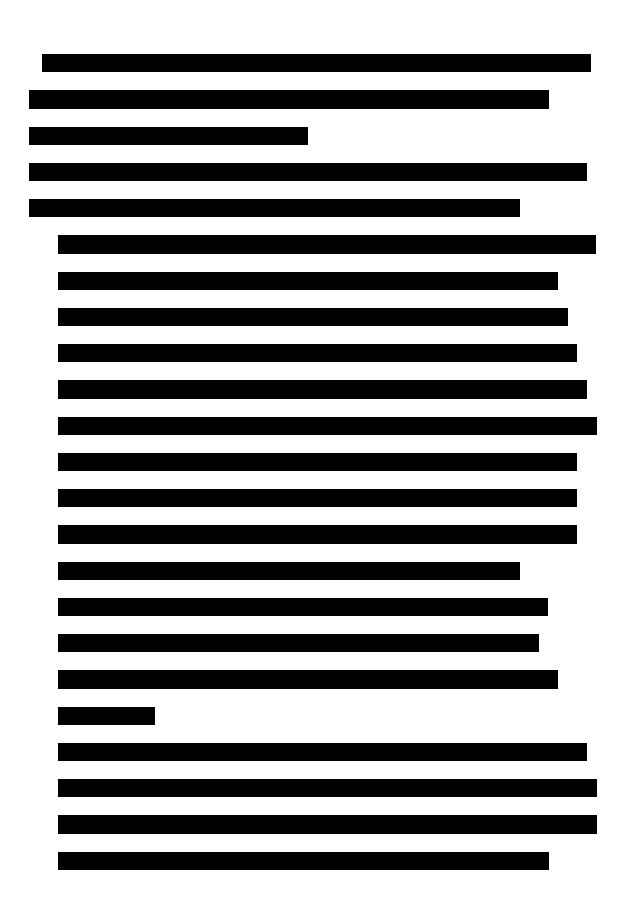


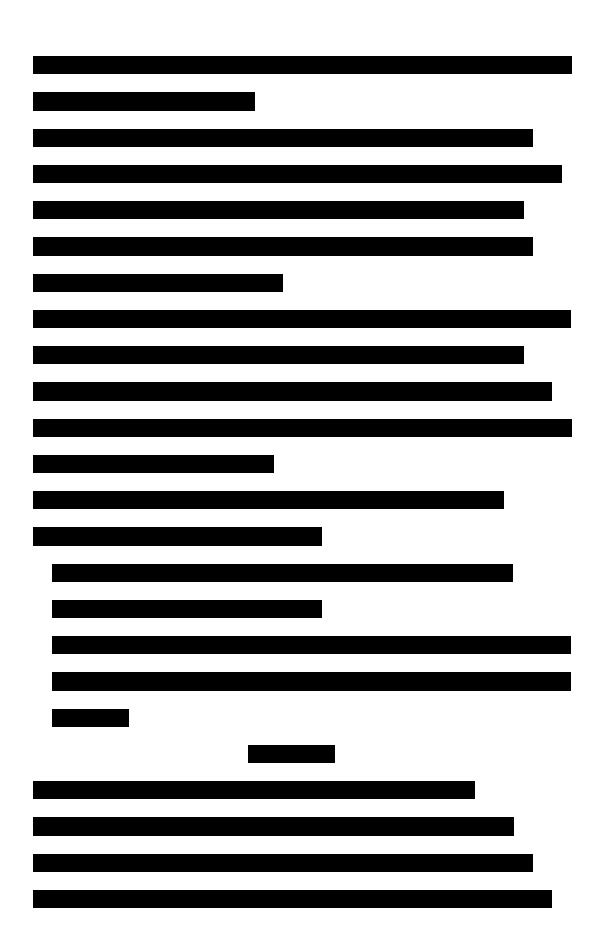


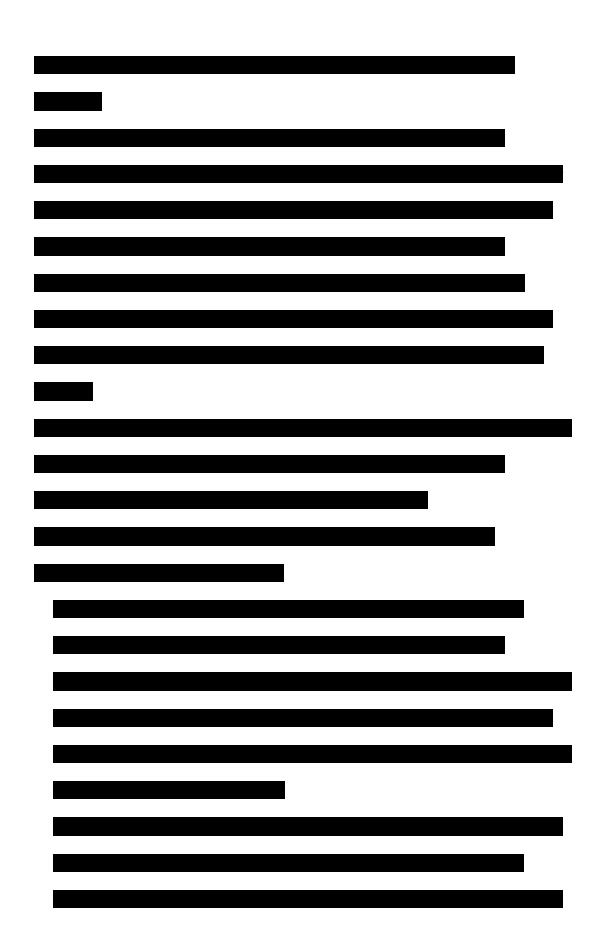


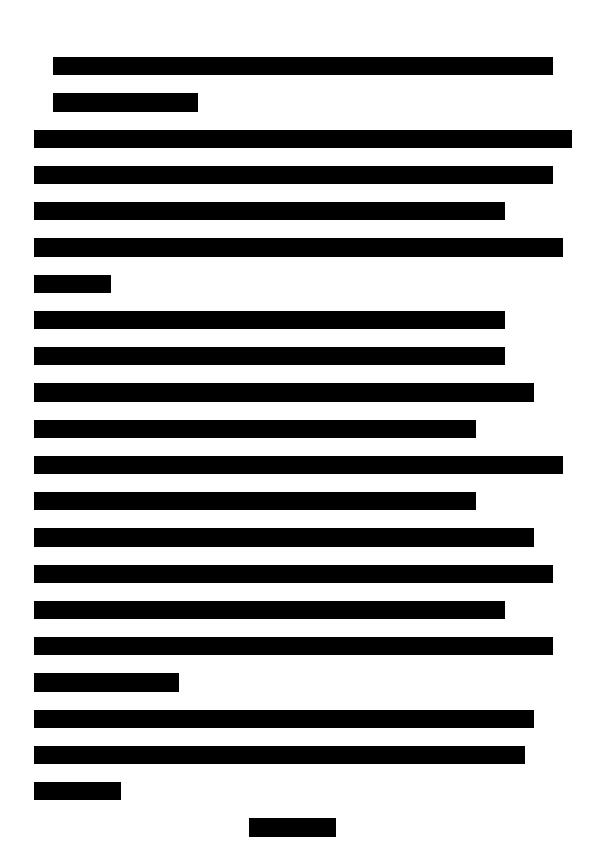


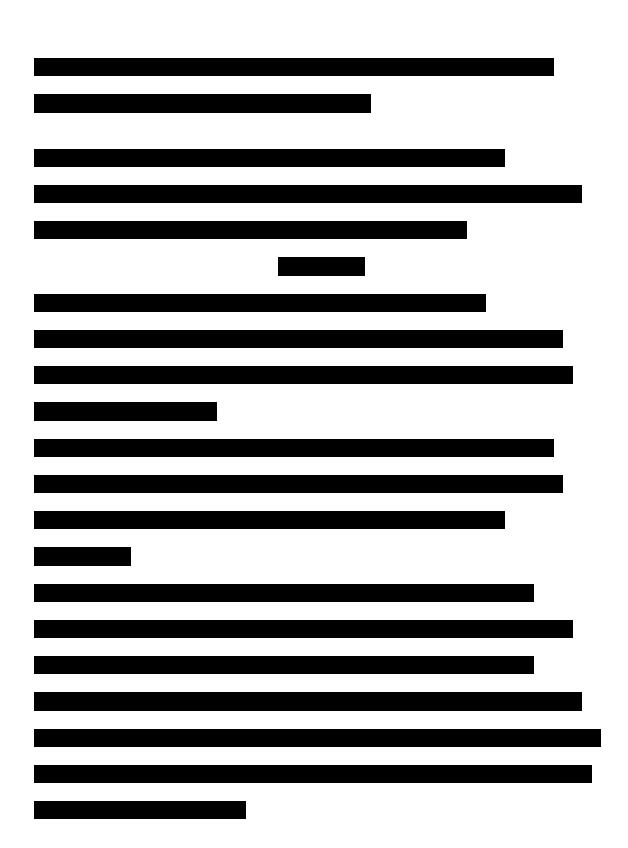


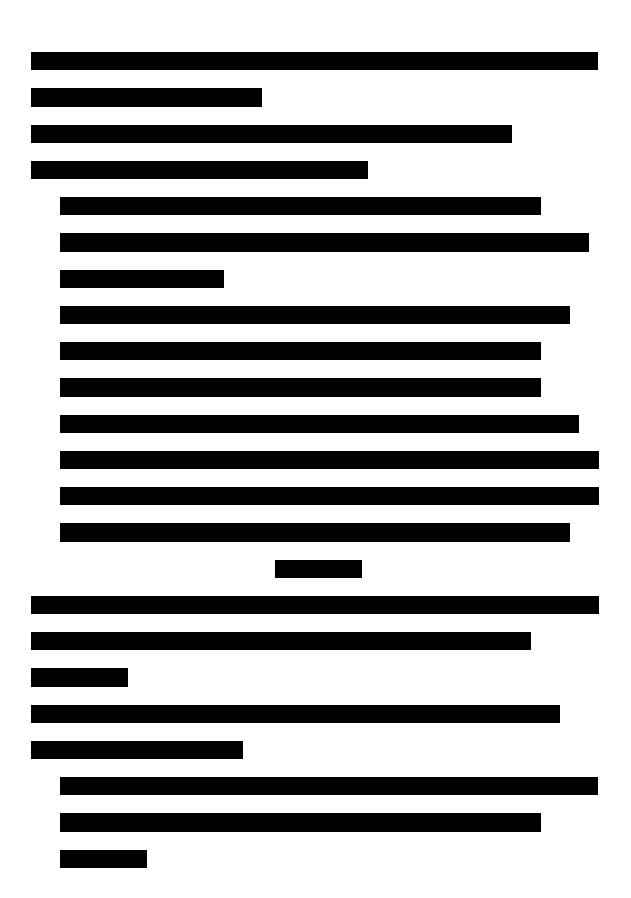


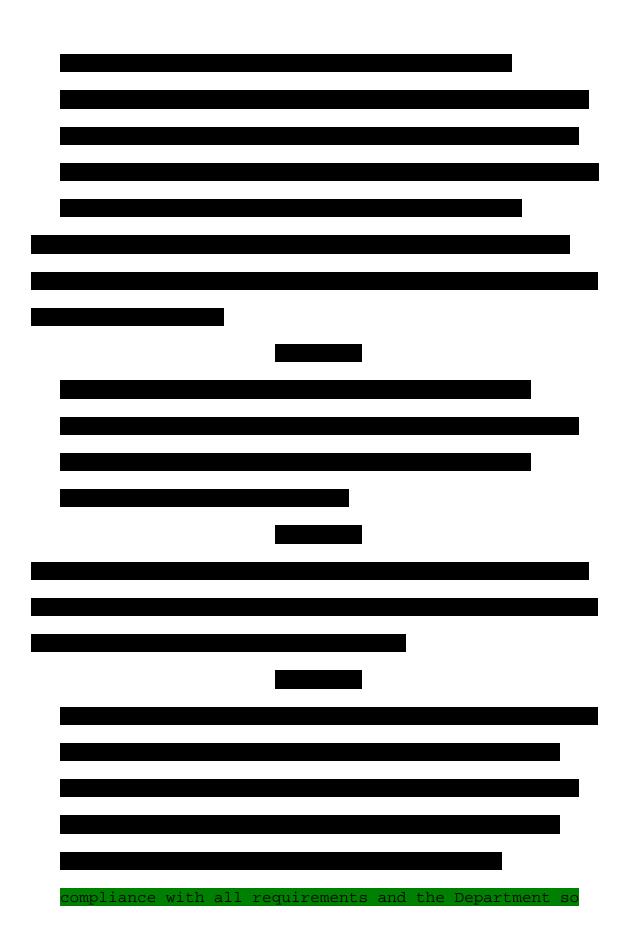




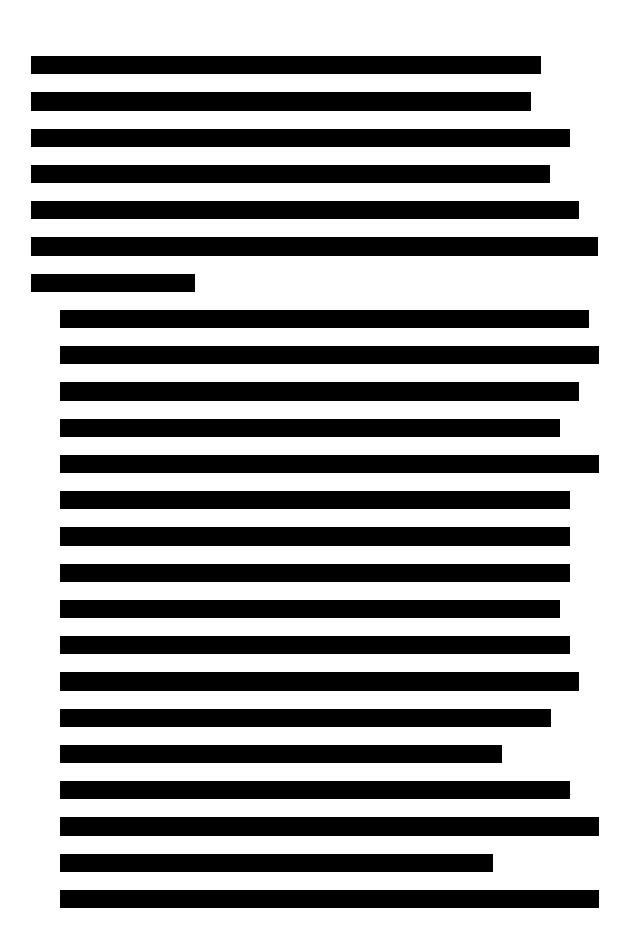






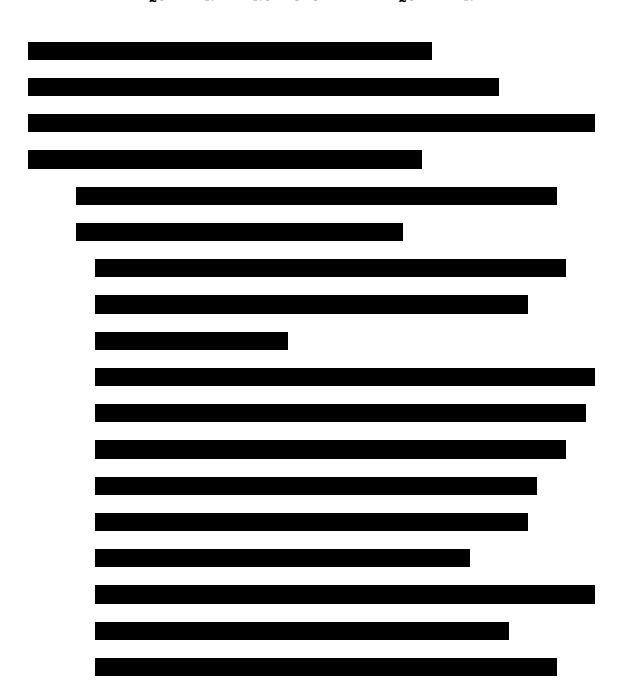


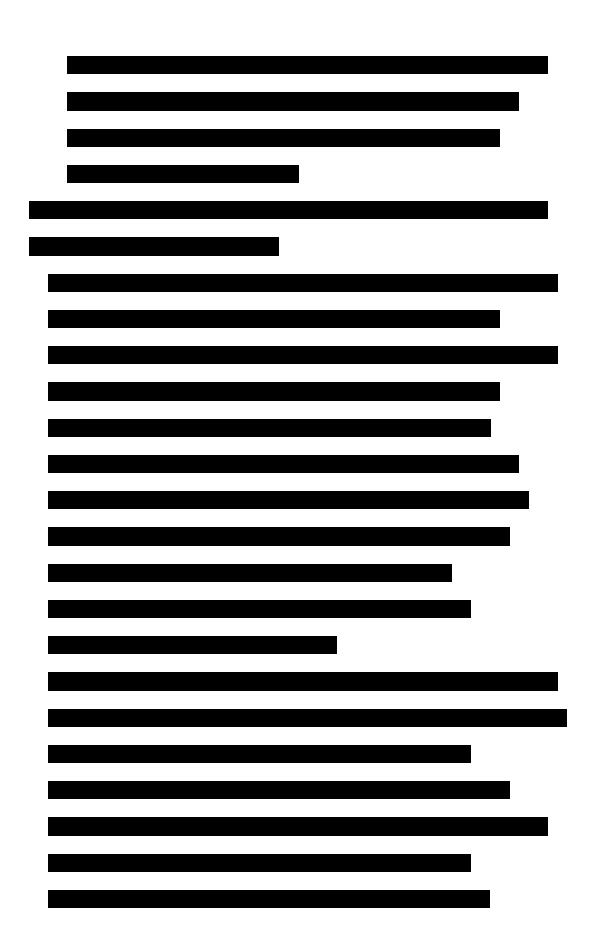


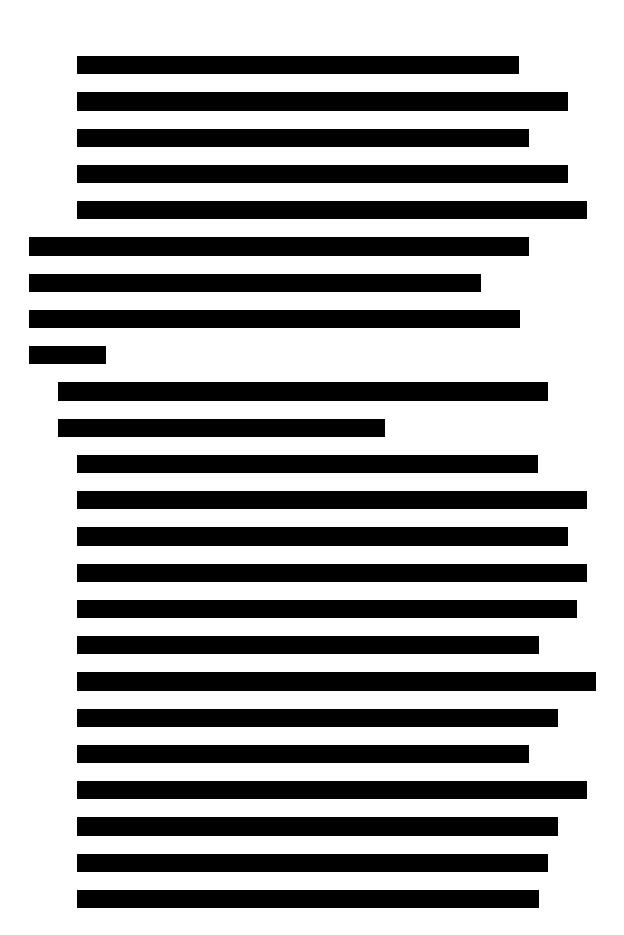


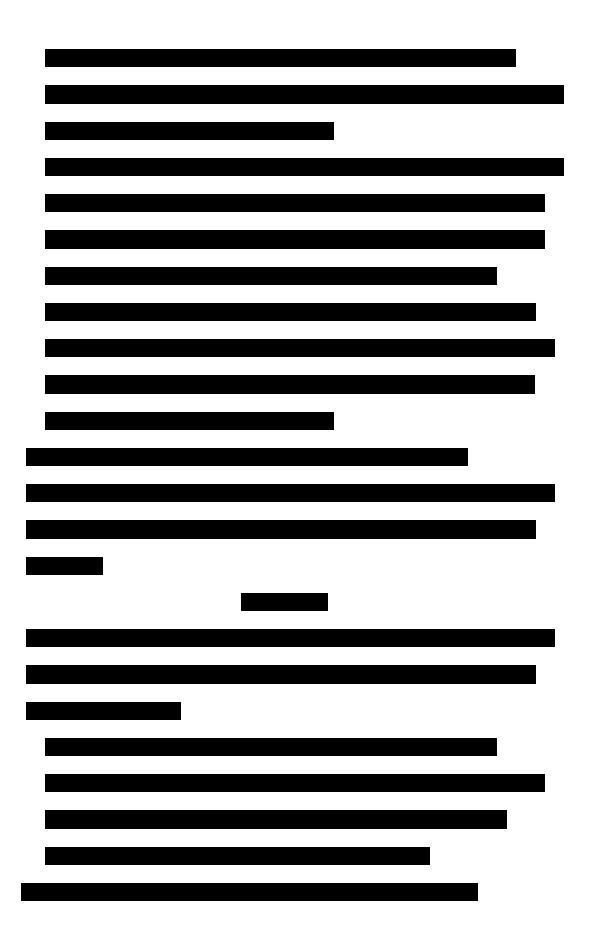


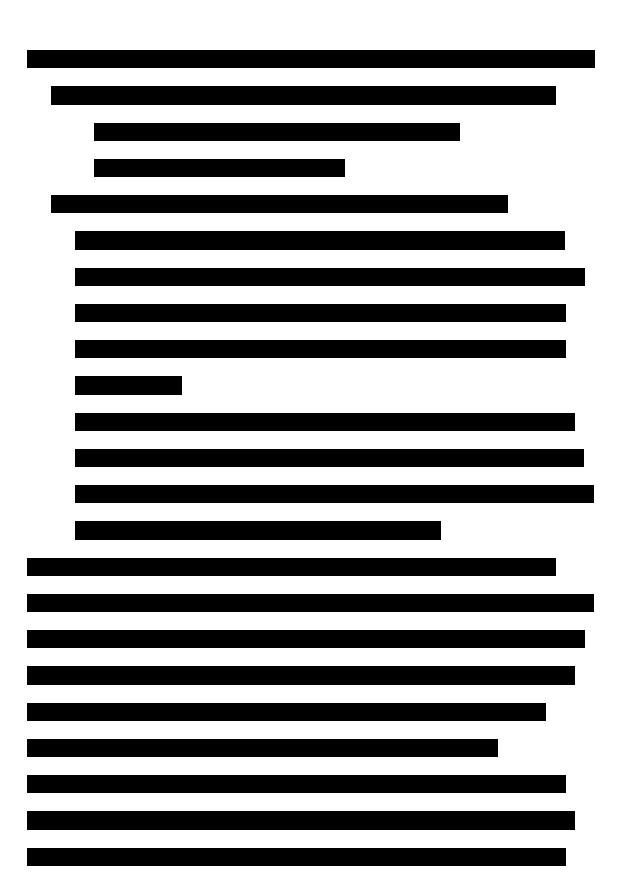
EQUIPMENT MANUFACTURERS' REQUIREMENTS

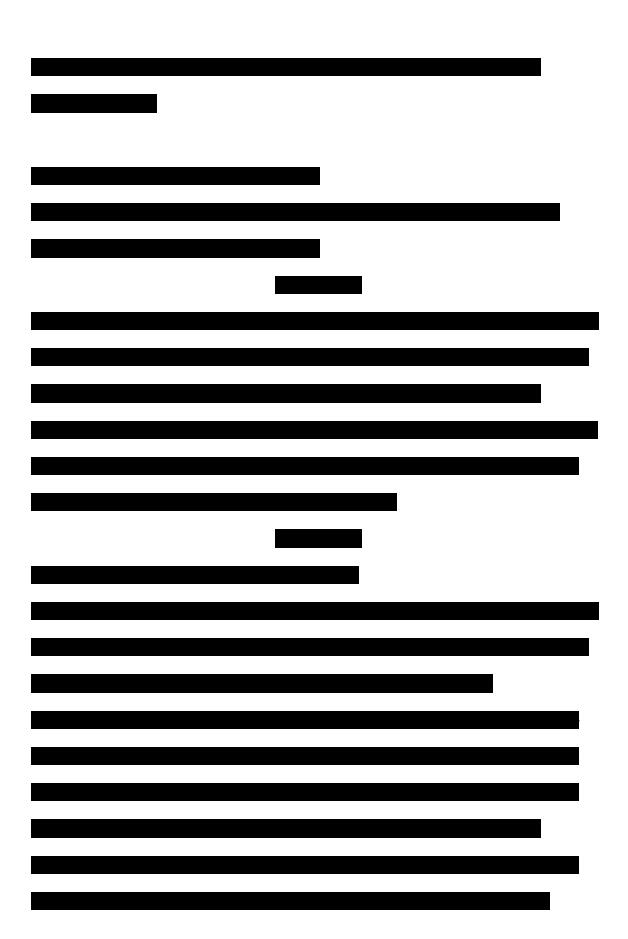


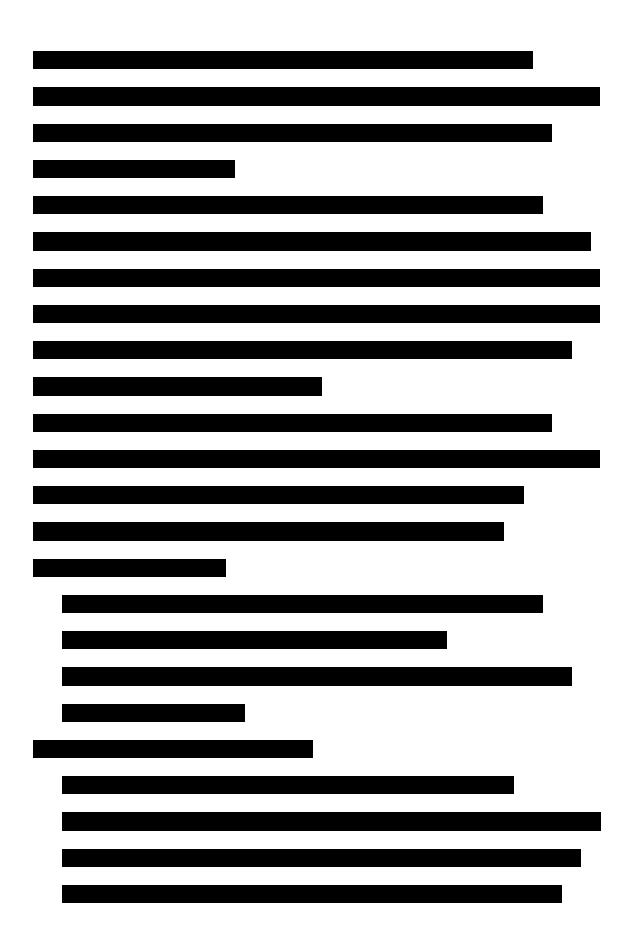


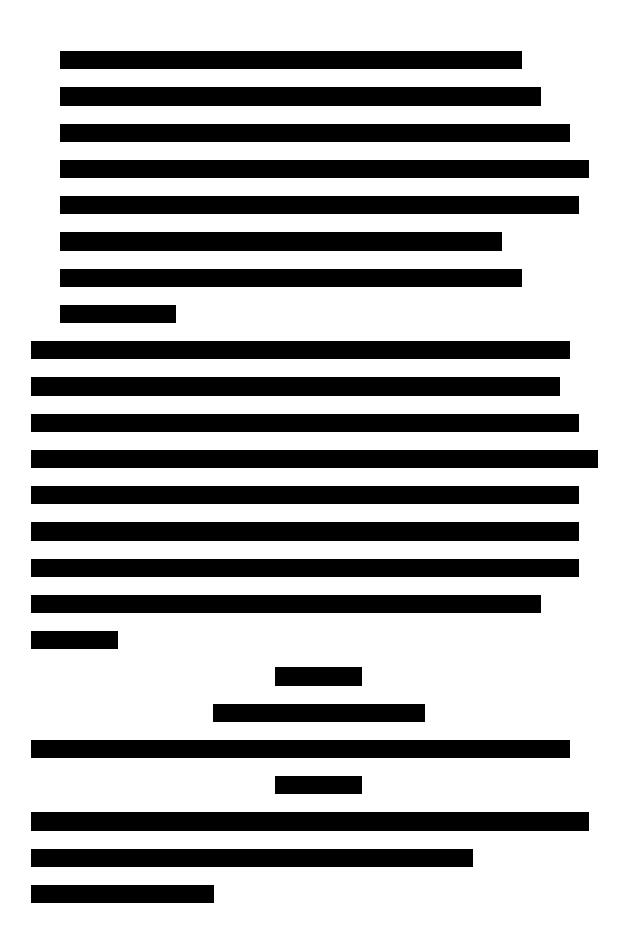


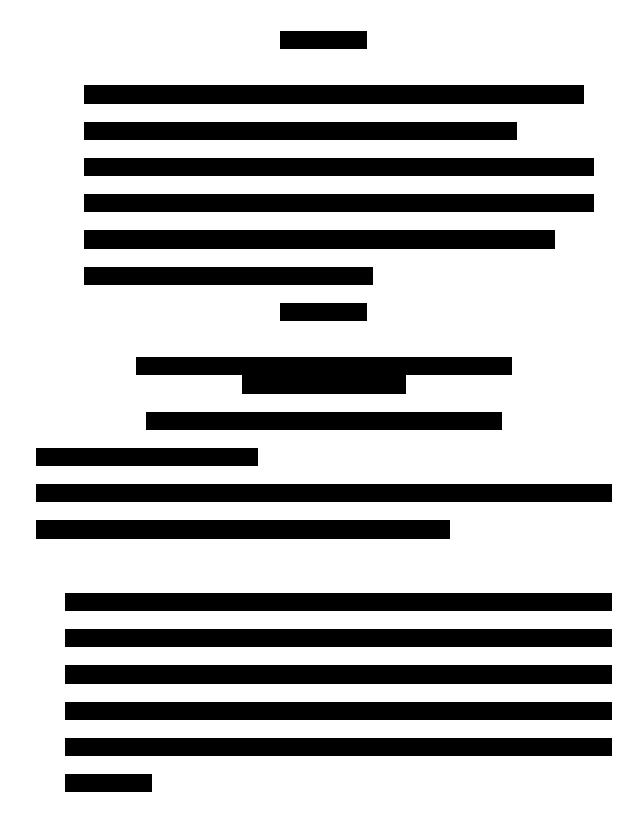


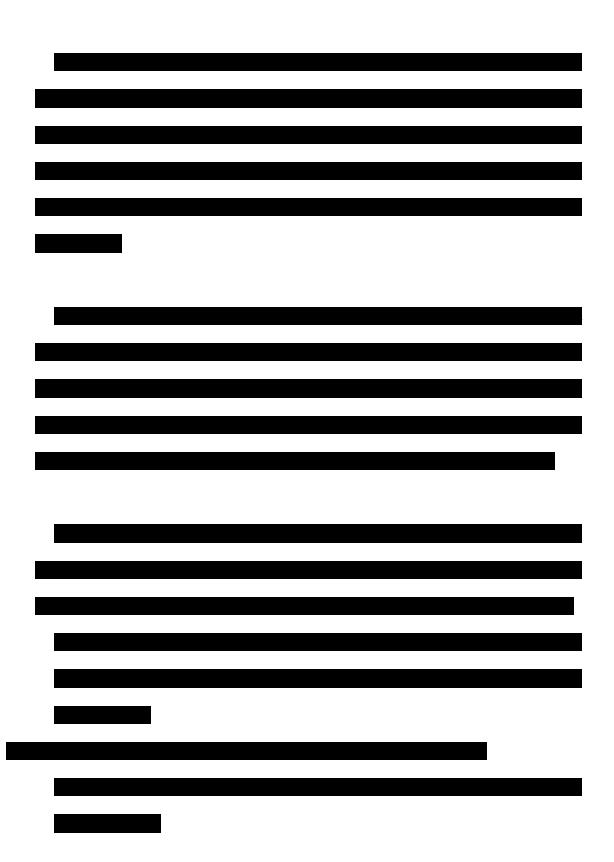










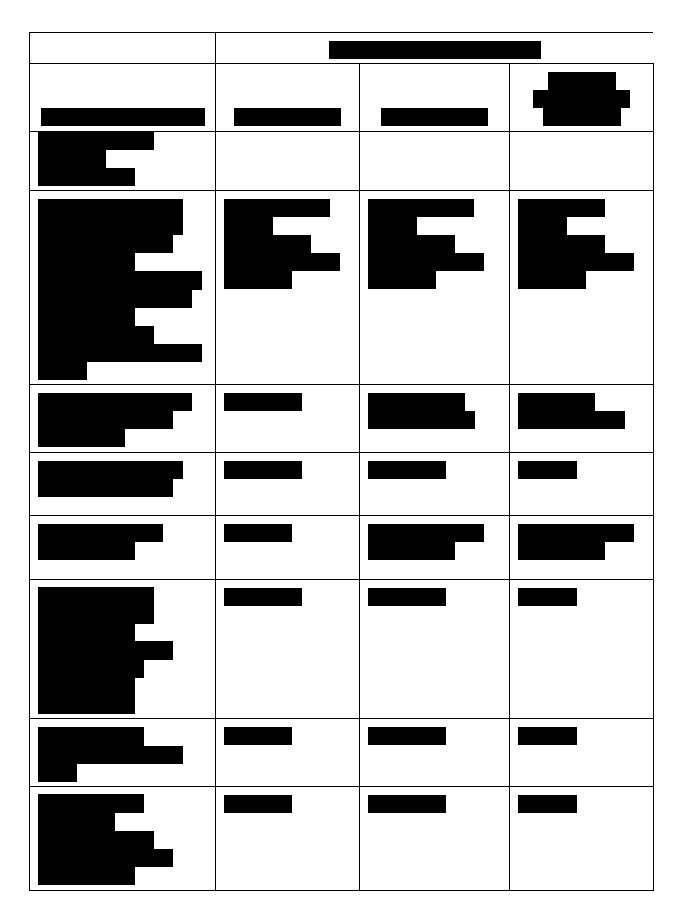


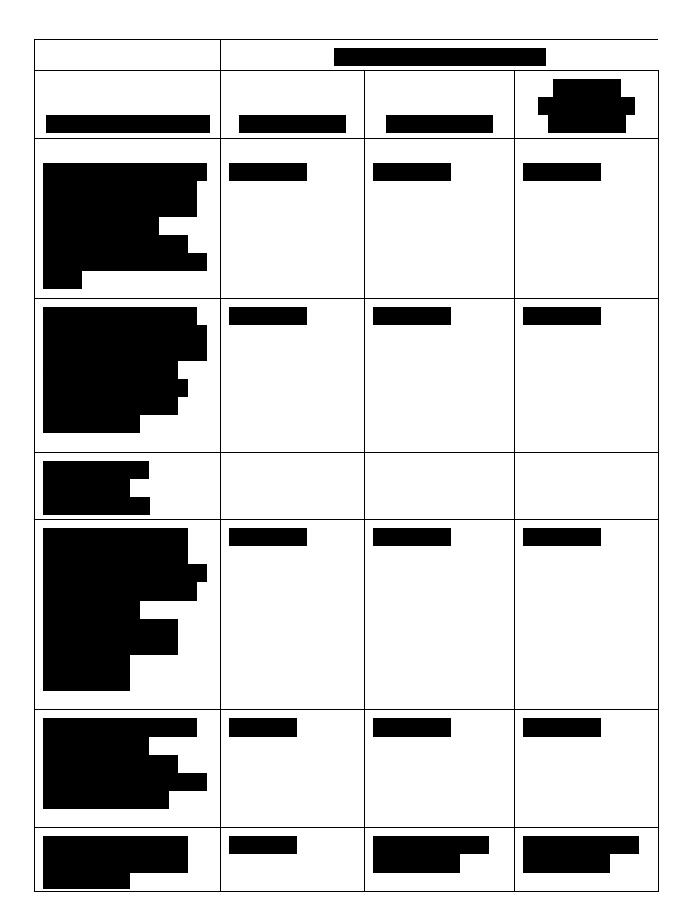
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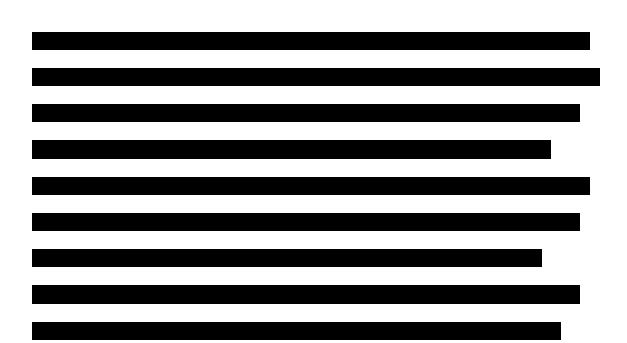


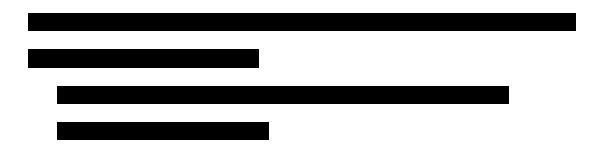






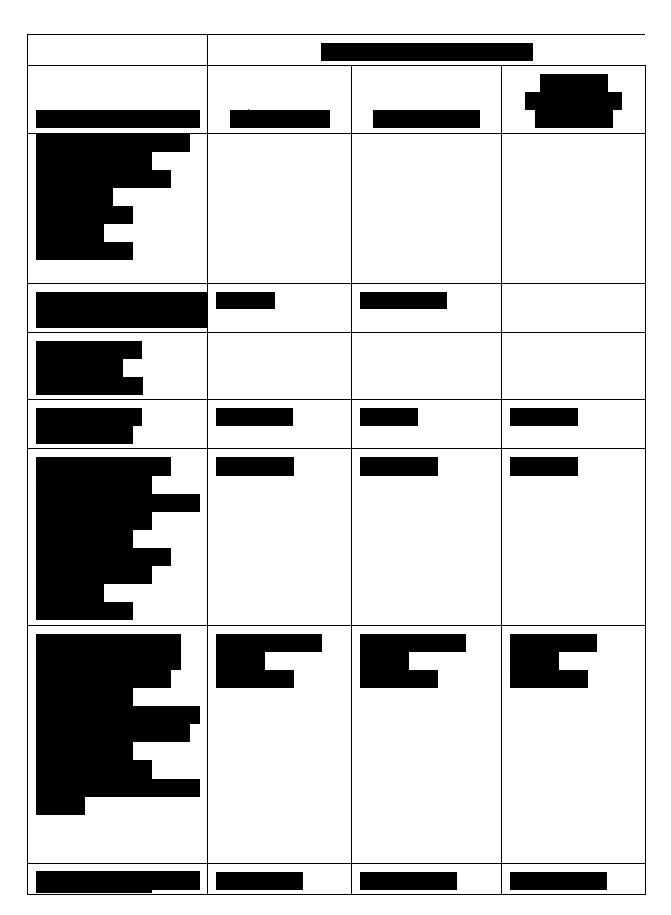




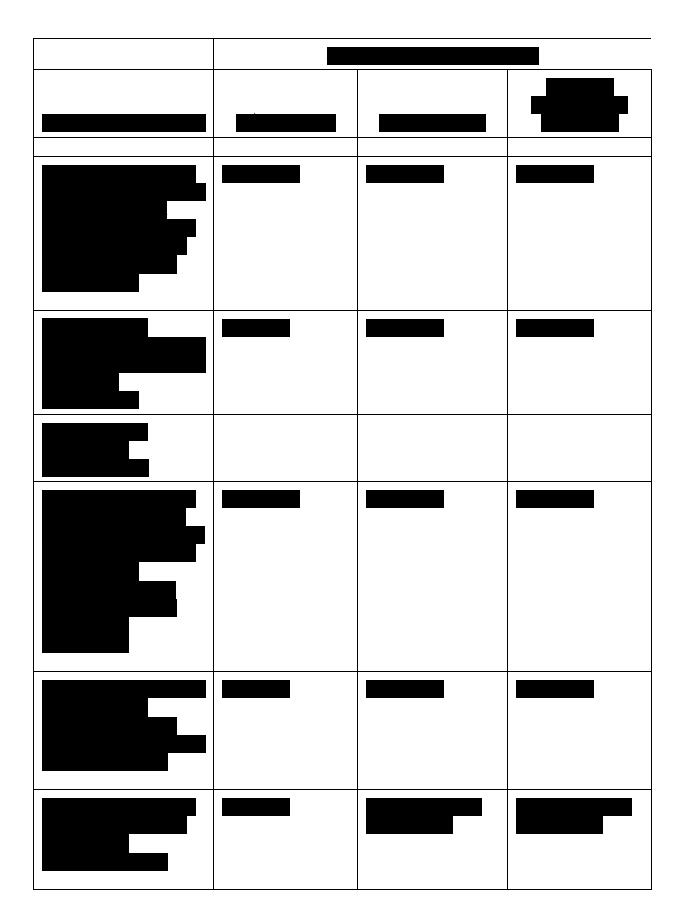


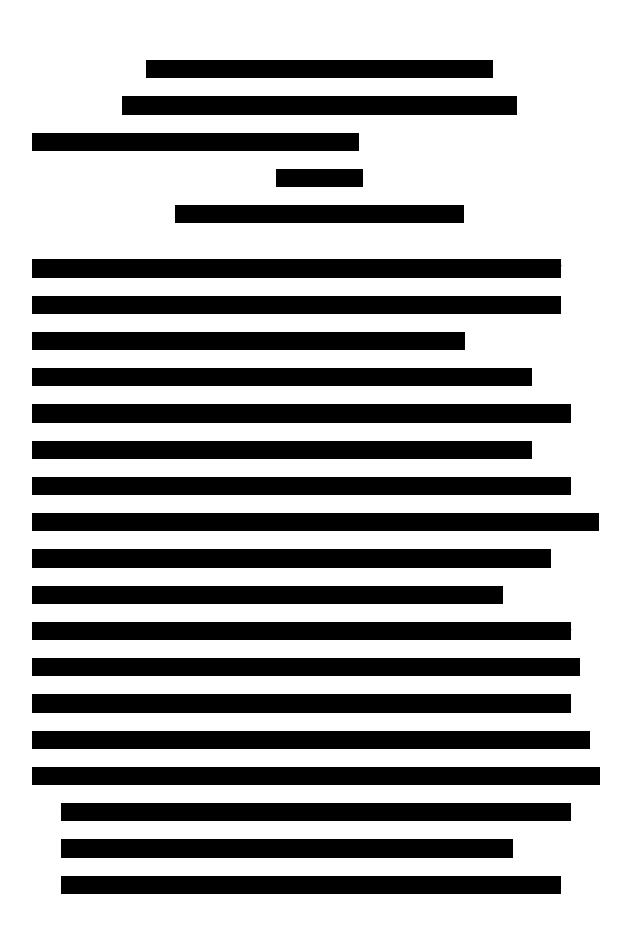


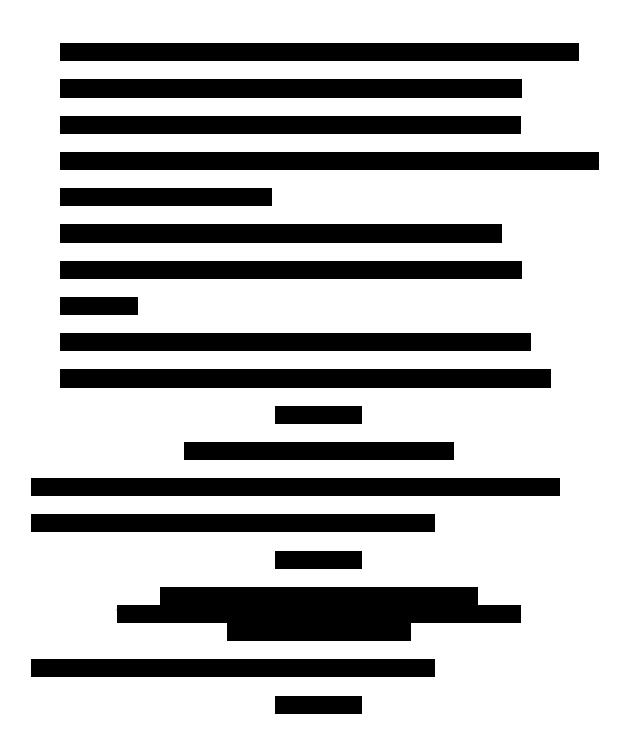












APPENDIX A

Acceleration Simulation Mode: Pennsylvania Procedures, Standards, Equipment Specifications and Quality Control Requirements

- § 1. ASM Exhaust Emission Standards and Calculations.
 - (a) ASM Emissions Standards
- (1) ASM Start-Up Standards. The following standards shall be used for ASM tests performed until notice by the Department that the standards in subsection (2)(i) or (2)(ii) shall apply. The exhaust emission standards for the following model years are cross referenced by the number in the column in (a)(3) below:

* * * * *

- (2) ASM final standards.
- (i) ASM equivalent test weight methodology. Upon notice by the Department in the Pennsylvania Bulletin, the following exhaust emission standards will be used for ASM tests performed. The exhaust emissions standards for the following model years are cross-referenced by the number in the column in (a)(3) below:
 - (A) Light Duty Vehicles.

* * * * *

(B) Light Duty Trucks 1 (less than 6000 pounds GVWR).

* * * * *

(C) Light Duty Trucks 2 (greater than 6000 pounds GVWR).

* * * * *

(ii) ASM vehicle engine displacement methodology.

Upon notice by the Department in the Pennsylvania

Bulletin, the exhaust emission standards used for ASM tests performed shall be in accordance with the following tables:

LDV Exhaust Emission Standards for the ASM 5015 test

	НС	СО	Nox
5015 LDV MY 1980 and newer	275 liters*		
5015 LDV MY 1980 to 1982		1.3 liters*%	
5015 LDV MY 1983 and newer		1.1 liters*%	
5015 LDV MY 1980 only			8,500 liters*

5015 LDV MY 1981 and newer			3,600 liters*
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LDT Exhaust Emission Standards for the ASM 5015 test

	нС	CO	Nox
5015 LDT MY 1980 to 1983	1,140 liters*		
5015 LDT MY 1984 to 1995	537 liters*		
5015 LDT MY 1996 [to 1998] <u>and</u> newer	275 liters*		
5015 LDT MY 1980 to 1983		9.7 liters*%	
5015 LDT MY 1984 to 1995		5.4 liters*%	
5015 LDT MY 1996 and newer		1.1 liters*%	
5015 LDT MY			14,145

1980 to 1987		liters*ppm
5015 LDT MY 1988 to 1995		7,380 liters*
5015 LDT MY 1996 and newer		6,150 liters*

All 5015 cut points are applied by the following method:

The vehicle's engine displacement in liters multiplied by the exhaust constituent (HC, CO, or Nox) levels in concentration (HC and Nox in ppm; CO in % ten second average values). This liter*concentration value is compared to the appropriate cut point and if the value is above the cut point the vehicle is considered having failed the test.

(3) ASM 2525 and 5015 concentration tables follow (although both 2525 and 5015 standards are shown, the Pennsylvania test consists only of the 5015 mode):

* * * * *

(b) ASM Test Score Calculation

* * * * *

