

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: AIR POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER k: EMISSION STANDARDS AND LIMITATIONS FOR MOBILE SOURCES

PART 240
MOBILE SOURCES

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240.APPENDIX A Rule into Section Table

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AUTHORITY: Implementing Sections 9 and 10 and authorized by Sections 27 and 28 of the Environmental Protection Act [415 ILCS 5/9, 10, 27, and 28] and Section 13C-20 of the Vehicle Emissions Inspection Law of 2005 [625 ILCS 5/13C-20].

SOURCE: Adopted as Chapter 2: Air Pollution, Part VII: Mobile Sources, filed and effective April 14, 1972; codified at 7 Ill. Reg. 13628; amended in R85-25, at 10 Ill. Reg. 11277, effective June 16, 1986; amended in R90-20 at 16 Ill. Reg. 6184, effective April 7, 1992; amended in R94-20 at 18 Ill. Reg. 18013, effective December 12, 1994; amended in R94-19 at 18 Ill. Reg. 18228, effective December 20, 1994; amended in R98-24 at 22 Ill. Reg. 13723, effective July 13, 1998; expedited correction at 22 Ill. Reg. 21120, effective July 13, 1998; amended in R01-12 at 24 Ill. Reg. 19188, effective December 18, 2000; amended in R01-8 at 25 Ill. Reg. 3680, effective February 26, 2001; amended in R02-8 at 25 Ill. Reg. 16379, effective December 18, 2001; amended in R11-19 at 35 Ill. Reg. 5552, effective March 18, 2011; amended in R12-12 at 36 Ill. Reg. 1066, effective February 1, 2012.

NOTE: Capitalization denotes statutory language.

SUBPART A: DEFINITIONS AND GENERAL PROVISIONS

Section 240.101 Preamble

As the state of knowledge and technology relating to the control of emissions from motor vehicles advances, and in furtherance of the purposes of the Environmental Protection Act [415 ILCS 5] (Act), the Pollution Control Board (Board) shall provide by rules and regulations for the control of emissions from motor vehicles. Such rules and regulations shall prescribe requirements for the installation and use of equipment designed to reduce or eliminate emissions and for the proper maintenance of such equipment and of vehicles. Any rules and regulations promulgated pursuant to this Section shall be consistent with provisions of federal law, if any, relating to control of emissions from the vehicles concerned.

(Source: Amended at 18 Ill. Reg. 18228, effective December 20, 1994)

Section 240.102 Definitions

All terms that appear in this Part have the definitions specified in this Section, the Vehicle Emissions Inspection Law of 2005 [625 ILCS 5/13C], and 35 Ill. Adm. Code 201 and 211. When conflicting definitions occur between this Section and 35 Ill. Adm. Code 201 or 211, the definitions of this Section apply in this Part.

“Agency” means the Illinois Environmental Protection Agency.

“Diesel engine” means all types of internal-combustion engines in which air is compressed to a temperature sufficiently high to ignite fuel injected directly into the cylinder area.

“Diesel locomotive” means a diesel engine vehicle designed to move cars on a railway.

“Evaporative system integrity test” means a test of a vehicle’s evaporative system. The test shall either consist of a leak check of a vehicle’s fuel cap with a fuel cap pressure decay tester (fuel cap pressure decay test), a fuel cap leak flow tester (fuel cap leak flow test), or a visual functional check, as applicable.

“Fuel cap” means a device used to seal a vehicle’s fuel inlet.

“Fuel cap leak flow test” means a test which may be performed in accordance with this Part on a vehicle’s fuel cap using a fuel cap leak flow tester to determine whether the vehicle complies with the evaporative system emission standards of this Part.

“Fuel cap leak flow tester” means a device used to determine the leak flow integrity of a vehicle’s fuel cap by comparing the measured leak flow of the fuel cap with an established fuel cap leak flow standard.

“Fuel cap pressure decay test” means the test performed in accordance with this Part on a vehicle’s fuel cap using a fuel cap pressure decay tester to determine whether the vehicle complies with the evaporative system emission standards of this Part.

“Fuel cap pressure decay tester” means a device used to determine the pressure decay integrity of a vehicle’s fuel cap by monitoring the pressure behind the fuel cap for a ten second period and comparing the measured pressure decay of the fuel cap to an established fuel cap pressure decay standard.

“Fuel cap visual functional test” means the test performed in accordance with this Part on a vehicle’s fuel cap using visual analysis to determine whether the vehicle complies with the evaporative system emission standards of this Part.

“Gross vehicle weight rating” or “GVWR” means the value specified by the manufacturer as the maximum design loaded weight of a single vehicle.

“Heavy duty vehicle” means any motor vehicle rated at more than 8500 pounds GVWR or that has a vehicle curb weight of more than 6000 pounds or that has a basic vehicle frontal area in excess of 45 square feet.

“High idle” means a vehicle operating condition with engine disconnected from an external load (placed in either neutral or park) and operating at speed of 2500 ± 300 RPM.

“Idle mode” means that portion of a vehicle emission test procedure conducted with the engine disconnected from an external load and operating at minimum throttle.

“Initial idle mode” means the first of up to two idle mode sampling periods during a steady-state idle mode test, during which exhaust emission measurements are made with the vehicle in “as-received” condition.

“Light duty truck 1” means a motor vehicle rated at 6000 pounds maximum GVWR or less and which has a vehicle frontal area of 45 square feet or less, and which is designed primarily for purposes of transportation of property or is a derivation of such a vehicle, or is designed primarily for transportation of persons and has a capacity of more than 12 persons, or is available with special features enabling off-street or off-highway operation and use.

“Light duty truck 2” means a motor vehicle rated between 6001 and 8500 pounds maximum GVWR and which has a vehicle frontal area of 45 square feet or less, and which is designed primarily for purposes of transportation of property or is a derivation of such a vehicle, or is designed primarily for transportation of persons and has a capacity of more than 12 persons, or is available with special features enabling off-street or off-highway operation and use.

“Light duty vehicle” means a passenger car or passenger car derivative capable of seating 12 passengers or fewer.

“Measured values” means five-second running averages of exhaust emission concentrations sampled at a minimum rate of twice per second.

“Model year” means the year of manufacture of a motor vehicle based upon the annual production period as designated by the manufacturer and indicated on the title and registration of the vehicle. If the manufacturer does not designate a production period for the vehicle, then “model year” means the calendar year of manufacture.

“Motor vehicle”², as used in this Part, shall have the same meaning as in Section 1-146 of the Illinois Vehicle Code [625 ILCS 5/1-146].

“Opacity” means the percentage of light transmitted from a source that is prevented from reaching a light detector.

“Preconditioning mode” means a period of steady-state high-idle operation conducted to ensure that the engine and emissions control system components are operating at normal operating temperatures, thus minimizing false failures caused by improper or insufficient warm-up.

“Second-chance idle mode” means the second of two idle mode sampling periods during a steady-state idle mode test, preceded by a preconditioning mode and utilized as a second chance to pass idle exhaust emission standards immediately following an initial idle mode failure.

“Snap-acceleration test” means a test to measure exhaust smoke opacity from heavy-duty diesel powered vehicles in accordance with the SAE J1667 procedure, incorporated by reference at Section 240.107 of this Subpart.

“Steady-state idle test” means a vehicle emission test procedure consisting of an initial idle mode measurement of exhaust emissions followed, if necessary, by a loaded or-high idle preconditioning mode and a second-chance idle mode.

“Vehicle curb weight” means the actual vehicle weight plus standard equipment and a full fuel tank.

“Visual inspection test” means a visual examination of a vehicle’s malfunction indicator lamp (MIL) consisting of verifying the status of the MIL in the key-on/engine off position followed by verifying the status of the MIL in the key-on/engine on position to determine the status of the MIL and existence of an emission related malfunction with the vehicle.

(Source: Amended at 36 Ill. Reg. 1066, effective February 1, 2012)

Section 240.103 Prohibitions

Except as permitted or authorized by law, no person shall fail to maintain in good working order or remove, dismantle or otherwise cause to be inoperative any equipment or feature constituting an operational element of the air pollution control systems or mechanisms of a motor vehicle as required by rules or regulations of the Board and the United States Environmental Protection Agency to be maintained in or on the vehicle.

Section 240.104 Inspection

- a) All motor vehicles subject to inspection pursuant to Section 13C-15 of the Vehicle Emissions Inspection Law of 2005 [625 ILCS 5/13C-15] shall comply with applicable vehicle emission standards contained in Sections 240.152, 240.172, 240.182, 40.192, and 240.202 of this Part.
- b) All diesel-powered vehicles subject to inspection pursuant to Section 13-109.1 of the Illinois Vehicle Code [625 ILCS 5/13-109.1] must comply with applicable smoke opacity standards set forth in Section 240.141(a) of this Part.

(Source: Amended at 36 Ill. Reg. 1066, effective February 1, 2012)

Section 240.105 Penalties

- a) Any violations of Sections 240.103, 240.121, 240.122, or 240.123 of this Part shall be subject to the penalties as set forth in Section 42 of the Act [415 ILCS 5/42].
- b) Any violations of Sections 240.104(b), 240.152, 240.172, 240.182, 240.192, or 240.202 of this Part, as applicable, shall be subject to the penalties as set forth in Sections 13C-55 and 13C-60 of the Vehicle Emissions Inspection Law [625 ILCS 5/13C-55 and 13C-60].

- c) Any violation of Section 240.141(a) of this Part will be subject to penalties as set forth in Section 13-109.1 of the Illinois Vehicle Code [625 ILCS 5/13-109.1].

(Source: Amended at 36 Ill. Reg. 1066, effective February 1, 2012)

Section 240.106 Determination of Violation

- a) Any violations of Sections 240.103, 240.121, 240.122, or 240.123 of this Part shall be determined by visual observation or by a test procedure employing an opacity measurement system as qualified by 35 Ill. Adm. Code 201, Subpart J.
- b) Any violations of Sections 240.152, 240.172, 240.182, 240.192, or 240.202 of this Part, as applicable, shall be determined in accordance with test procedures adopted by the Agency in 35 Ill. Adm. Code 276.
- c) Any violation of Section 240.141(a) of this Part will be determined in accordance with test procedures set forth in Section 240.141(b) of this Part.

(Source: Amended at 36 Ill. Reg. 1066, effective February 1, 2012)

Section 240.107 Incorporations by Reference

The following material is incorporated by reference and includes no later editions or amendments:

Society of Automotive Engineers (SAE), 400 Commonwealth Drive, Warrendale, PA 15096-0001, www.sae.org: Report J1667 Snap-Acceleration Smoke Test Procedure for Heavy-Duty Diesel Powered Vehicles (February 1996).

(Source: Amended at 35 Ill. Reg.5552, effective March 18, 2011)

SUBPART B: EMISSIONS

Section 240.121 Smoke Emissions

- a) There shall be no visible emissions of smoke from a motor vehicle, zero opacity.
- b) Motor vehicles traveling Illinois public highways from out of State must comply with subsection (a).
- c) No used motor vehicle shall be sold or transferred in Illinois unless that said vehicle meets subsection (a).

Section 240.122 Diesel Engine Emission Standards for Locomotives

- a) No person shall cause or allow the emission of smoke from any diesel locomotive in the State of Illinois to exceed thirty percent (30%) opacity.
- b) Subsection (a) shall not apply to:

- 1) Smoke resulting from starting a cold locomotive: for a period of time not to exceed 30 minutes.
- 2) Smoke emitted while accelerating under load from a throttle setting other than idle to a higher throttle setting: for a period of time not to exceed 40 seconds.
- 3) Smoke emitted upon locomotive loading following idle: for a period of time not to exceed 2 minutes.
- 4) Smoke emitted during locomotive testing, maintenance, adjustment, rebuilding, repairing or breaking in: for a period of time not to exceed 3 consecutive minutes and an aggregate of 10 minutes in any 60 minute period.
- 5) Smoke emitted by a locomotive which because of its age or design makes replacement or retrofit parts necessary to achieve smoke reduction unavailable. These locomotives shall be retired at the earliest possible time.

(Source: Amended in R90-20 at 16 Ill. Reg. 6184, effective April 7, 1992.)

Section 240.123 Liquid Petroleum Gas Fuel Systems

- a) Motor vehicles which are solely fueled with liquid petroleum gas shall have excess air injection systems made inoperative, where such systems are installed by the vehicle manufacturers.
- b)
 - 1) Motor vehicles which operate on liquid petroleum gas or gasoline fuels alternately, in dual fuel systems, shall have excess air injection systems inoperative when operating on liquid petroleum, gas where excess air injection systems are installed by the vehicle manufacturers.
 - 2) Motor vehicles which operate on liquid petroleum gas or gasoline fuels alternately in a dual fuel system, shall have excess air injection systems operational when operating on gasoline, where excess air injection systems are installed by the vehicle manufacturers.
 - 3) Motor vehicles which operate on liquid petroleum gas or gasoline fuels alternately in a dual fuel system, shall have the intake manifold heat riser system to the carburetor operational at all times when the motor vehicles are operating.

SUBPART C: HEAVY-DUTY DIESEL SMOKE OPACITY STANDARDS AND TEST PROCEDURES

Section 240.140 Applicability

This Subpart applies to all on-road, diesel-powered heavy duty operating in the State of Illinois.

(Source: Amended at 25 Ill. Reg.3680, effective February 26, 2001)

Section 240.141 Smoke Opacity Standards and Test Procedures for Diesel-Powered Heavy Duty Vehicles

- a) Diesel-powered heavy duty vehicles described in Section 240.140 of this Subpart are subject to the following smoke opacity standards:
- 1) Diesel-powered heavy duty vehicles that are model year ~~No~~ 1991 or newer must not exceed forty percent peak smoke opacity when tested in accordance with subsection (b) of this Section.
 - 2) Except as set forth in subsection (a)(3) of this Section, diesel-powered heavy duty vehicles that are model year 1990 or older must not exceed fifty-five percent peak smoke opacity when tested in accordance with subsection (b) of this Section.
 - 3) Until December 31, 2002, diesel-powered heavy duty vehicles that are model year 1973 or older must not exceed seventy percent peak smoke opacity when tested in accordance with subsection (b) of this Section. Beginning on January 1, 2003, diesel-powered heavy duty vehicles that are model year 1973 or older must not exceed fifty-five percent peak smoke opacity when tested in accordance with subsection (b) of this Section.
- b) Test procedures and equipment for measuring peak smoke opacity from diesel-powered heavy duty vehicles must be in accordance with the Society of Automotive Engineer's (SAE) Recommended Practice J1667, "Snap-Acceleration Smoke Test Procedure for Heavy-Duty Diesel Powered Vehicles," (February 1996), incorporated by reference in Section 240.107 of this Part.
- BOARD NOTE: The Illinois Department of Transportation also addresses the use of diesel smoke test procedures in 92 Ill. Adm. Code 460.

(Source: Amended at 25 Ill. Reg.3680, effective February 26, 2001)

SUBPART D: STEADY-STATE IDLE MODE TEST EMISSION STANDARDS

Section 240.151 Applicability

This Subpart is effective through January 31, 2012. The standards of this Subpart apply to those vehicles identified in subsection 13C-25(d) of the Vehicle Emissions Inspection Law of 2005.

(Source: Amended at 36 Ill. Reg. 1066, effective February 1, 2012)

Section 240.152 Steady-State Idle Mode Vehicle Exhaust Emission Standards

- a) Exhaust emissions from light duty vehicles shall not exceed the following limitations:
- | Model Year | Carbon Monoxide
(%) | Hydrocarbons as Hexane
(ppm) |
|------------|------------------------|---------------------------------|
|------------|------------------------|---------------------------------|

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	1996 and newer	1.2	220
b)	Exhaust emissions from light duty trucks 1 and light duty trucks 2 shall not exceed the following limitations:		
	Model Year	Carbon Monoxide	Hydrocarbons as Hexane
		(%)	(ppm)
	1996 and newer	1.2	220
c)	Exhaust emissions from heavy duty vehicles shall not exceed the following limitations:		
	Model Year	Carbon Monoxide	Hydrocarbons as Hexane
		(%)	(ppm)
	1996 and newer	3.0	300

(Source: Amended at 35 Ill. Reg.5552, effective March 18, 2011)

Section 240.153 Compliance Determination

Compliance shall be determined based upon the measurement of exhaust emissions using the steady-state idle test while the vehicle to be tested is operating in the idle mode. The vehicle shall pass exhaust emissions inspection if at any time during the initial idle mode or second-chance idle mode of the steady-state idle test the measured values are at or below the applicable limits of Section 240.152 of this Subpart. Vehicles failing the initial idle mode shall undergo a high idle preconditioning mode and receive a second-chance idle mode unless no measured values less than 1800 ppm HC are obtained within an elapsed time of 30 seconds.

(Source: Amended at 35 Ill. Reg.5552, effective March 18, 2011)

SUBPART F: EVAPORATIVE TEST STANDARDS

Section 240.171 Applicability

This Subpart is effective through January 31, 2012. The standards of this Subpart apply to those vehicles identified in subsection 13C-25(d) of the Vehicle Emissions Inspection Law of 2005.

(Source: Amended at 36 Ill. Reg. 1066, effective February 1, 2012)

Section 240.172 Evaporative System Integrity Test Standards

Vehicles subject to evaporative system integrity testing shall fail the evaporative system integrity test if one of the following occurs:

- a) Fuel Cap Pressure Decay Standards - While tested using the fuel cap pressure decay tester, the pressure decays by 6 inches of water or more during a 10 second period after being pressurized to 28±1 inches of water column;
- b) Fuel Cap Leak Flow Test Standards - While tested using the fuel cap leak flow tester, the fuel cap leak flow rate exceeds 60 cc/min at a pressure of 30±1 inches

of water column. Determination will be made by comparing the fuel cap's measured leak flow rate with the flow rate obtained from a calibrated master orifice with a National Institute of Standards and Technology traceable flow rate which will result in a pass/fail flow rate threshold of 60 cc/min of air at 30±1 inches of water column;

- c) Visual Functional Test Standards - While tested using the visual functional test, an inspection of the fuel cap reveals one or more of the following:
- 1) a missing fuel cap;
 - 2) a missing or damaged o-ring, gasket, or seal;
 - 3) missing or damaged threads, flanges, prongs, or other parts used to secure the fuel cap to the fuel tank filler neck; and/or
 - 4) cracks, holes, or other visible forms of tampering or damage.

(Source: Amended at 22 Ill. Reg. 13723, effective July 13, 1998)

SUBPART G: ON-ROAD REMOTE SENSING TEST EMISSION STANDARDS

Section 240.181 Applicability

The standards of this Subpart apply to those vehicles tested pursuant to subsection 13C-15(b)(11) of the Vehicle Emissions Inspection Law of 2005

(Source: Amended at 35 Ill. Reg.5552, effective March 18, 2011)

Section 240.182 On-Road Remote Sensing Emission Standards

Exhaust emissions shall not exceed the following limitations:

Model Year	Hydrocarbons (ppm)	Carbon Monoxide (%)
1996 and newer	400	2.0

(Source: Amended at 35 Ill. Reg.5552, effective March 18, 2011)

Section 240.183 Compliance Determination

Compliance shall be determined based upon the measurement of exhaust emissions using the on-road remote sensing test procedures adopted by the Agency. If, during the course of on-road inspections, a vehicle is found to exceed the on-road remote sensing emission standards specified in Section 240.182 for the model year and type of vehicle, the Agency shall send a notice to the vehicle owner of the violation, which notice will include the time and location of the reading. The notice of a second on-road remote sensing exceedence shall, in addition to the information

contained in the first notice, indicate that the vehicle has been reassigned and is subject to an out-of-cycle follow-up inspection at an official inspection station. In no case shall the Agency send a notice of an on-road exceedance to the owner of a vehicle that was found to exceed the on-road remote sensing emission standards if the vehicle is registered outside the affected counties.

(Source: Added at 22 Ill. Reg. 13723, effective July 13, 1998)

SUBPART H: ON-BOARD DIAGNOSTIC TEST STANDARDS

Section 240.191 Applicability

The standards of this Subpart apply to those vehicles tested pursuant to subsection 13C-25(c) of the Vehicle Emissions Inspection Law of 2005.

(Source: Amended at 35 Ill. Reg.5552, effective March 18, 2011)

Section 240.192 On-Board Diagnostic Test Standards

Vehicles subject to on-board diagnostic testing shall fail the on-board diagnostic test if one of the following occurs:

- a) the vehicle connector is missing, has been tampered with, or is otherwise inoperable; or
- b) the malfunction indicator light is commanded to be illuminated and it is not visually illuminated according to visual inspection; or
- c) the malfunction indicator light is commanded to be illuminated for any on-board diagnostic trouble codes; or
- d) the malfunction indicator light (MIL) does not illuminate at all when the vehicle is in the key-on/engine-off condition.

(Source: Amended at 25 Ill. Reg. 16379, effective December 18, 2001)

Section 240.193 Compliance Determination

Compliance shall be determined based upon the inspection of the on-board diagnostic vehicle connector, malfunction indicator light, and electronic retrieval of data stored in the vehicle's on-board diagnostic system using the on-board diagnostic test procedures adopted by the Agency in 35 Ill. Adm. Code 276.

(Source: Amended at 25 Ill. Reg. 16379, effective December 18, 2001)

SUBPART I: VISUAL INSPECTION TEST STANDARDS

Section 240.201 Applicability

This Subpart is applicable beginning February 1, 2012. The standards of this Subpart apply to those vehicles tested pursuant to Section 13C-25(h) of the Vehicle Emissions Inspection Law of 2005.

(Source: Added at 36 Ill. Reg. 1066, effective February 1, 2012)

Section 240.202 Visual Inspection Test Standards

Vehicles subject to visual inspection testing shall fail the visual inspection test if the MIL does not illuminate in the key-on/engine off position or continuously illuminates in the key-on/engine on position.

(Source: Added at 36 Ill. Reg. 1066, effective February 1, 2012)

Section 240.203 Compliance Determination

Compliance shall be determined based upon a visual examination of the MIL using the visual inspection test procedures adopted by the Agency in 35 Ill. Adm. Code 276.

(Source: Added at 36 Ill. Reg. 1066, effective February 1, 2012)

Appendix A Rule into Section Table

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Appendix B Section into Rule Table

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