

CITY OF PHILADELPHIA  
DEPARTMENT OF PUBLIC HEALTH  
AIR POLLUTION CONTROL BOARD

AMENDMENTS TO  
AIR MANAGEMENT REGULATION XII  
PERTAINING TO THE CONSTRUCTION, MODIFICATION, AND  
OPERATION OF AUTOMOTIVE FACILITIES EQUIPPED  
WITH MECHANICAL VENTILATION SYSTEMS

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Air Management Regulation XII Approved:

Air Pollution Control Board .....	June 13, 1978
Board of Health .....	June 21, 1978
Department of Law .....	June 28, 1978
Department of Records .....	August 1, 1978

Amendments Adopted:

Air Pollution Control Board .....	May 17, 2017
Law Department Approval.....	May 23, 2017
Department of Records .....	_____, _____

**AMENDMENTS TO**  
**AIR MANAGEMENT REGULATION XII**  
**PERTAINING TO THE CONSTRUCTION, MODIFICATION, AND**  
**OPERATION OF AUTOMOTIVE FACILITIES EQUIPPED**  
**WITH MECHANICAL VENTILATION SYSTEMS**

**Section I. Definitions**

In addition to definitions provided in the Air Management Code, the following definitions apply to this Regulation:

**Automotive Facility** – Any building or structure, or portion thereof, which is used as an enclosed parking garage, underground parking or loading facility or tunnel; excepting open parking lots, mechanical access parking garages, and garages of one-or two family dwellings.

**Carbon Monoxide** – A colorless, odorless gas at standard conditions which has the molecular formula CO.

**Emergency Action Procedure** – A description of the automotive facility management's policy concerning personnel responsibilities and physical actions to be initiated in the event of equipment breakdown or when ambient conditions within the automotive facility pose a threat to the health and safety of employees or patrons.

**Enclosed Parking Garage** – Any parking facility, building or structure used for the storage of more than ten (10) motor vehicles that is not an open parking garage as defined in Title 4 of The Philadelphia Code, Subcode “B” (The Philadelphia Building Code).

**Mechanical Ventilation System** – Fans, blowers or other air moving devices with associated power systems, controls and air distribution network used for air handling in an enclosed space.

**Modification** – Alteration, reconstruction or conversion of any existing automotive facility; excepting minor repairs and alterations which do not materially alter the design and operating characteristics of the facility or its mechanical ventilation system, or increase the quantity, duration or resultant concentrations of carbon monoxide (CO) emissions generated within or exhausted from the facility.

**Open Parking Garage** – Any above ground naturally ventilated parking facility, building or structure used for the storage of motor vehicles as defined in Title 4 of The Philadelphia Code, Subcode “B” (The Philadelphia Building Code).

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## Section II. Applicability and General Provisions

- A. On and after the effective date of this amended regulation, no person shall construct or modify any automotive facility, as defined in Section I, before obtaining from the Department a permit for such construction or modification; and no person shall operate any such automotive facility without obtaining a license from the Department.
- B. No person shall operate any automotive facility, enclosed parking garage, or open parking garage with a mechanical ventilation system or carbon monoxide detectors and constructed before the effective date of this amended regulation, without obtaining a license from the Department.
- C. Nothing contained in this Regulation shall be interpreted to excuse or relieve any person from complying with any applicable requirement of The Philadelphia Code or of any other regulation adopted thereunder.

## Section III. Installation Permit and License Requirements

- A. Installation Permit Application and Automotive Facility Guidelines

The Department shall promulgate guidelines establishing mechanical ventilation, air monitoring, and related safety requirements for automotive facilities. An application for a permit to construct or modify an automotive facility shall be accompanied by sufficient information to allow the Department to evaluate potential health hazards, both internal and external to the automotive facility, that may result directly or indirectly from its operation. Such information shall include:

- 1. The location and a general description of the automotive facility;
- 2. Information on the design, construction and operation of the automotive facility including plans;
- 3. Information on the design, construction and operation of any associated mechanical ventilation system, including plans;
- 4. Information on the design, installation, and operation of equipment to monitor carbon monoxide (CO) concentrations within the automotive facility, including plans related to detection and warning systems, where such equipment is required by the Department; and

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5. Any additional information, plans, specifications, evidence or documentation that the Department may require.

#### B. Issuance of Installation Permits and Licenses

The Department will issue a permit to construct or modify an automotive facility only upon a demonstration, to the satisfaction of the Department, that the facility as constructed or modified will have sufficient ventilation, and, where required, a CO monitoring system to protect the public.

Licenses required by Section II of this amended regulation must be renewed annually. The Department may only issue such licenses upon the completion of an annual inspection that determines that the requirements of this regulation, the applicable Automotive Facility Guidelines, and any permit for the facility issued pursuant to the Air Management Code, have been met.

#### Section IV. Enclosed Parking Garages

In addition to the above, the following requirements shall apply specifically to enclosed parking garages subject to this Regulation:

- A. *Mechanical Ventilation System* – All Enclosed parking garages shall be equipped with a mechanical ventilation system designed to limit internal ambient concentrations of CO to: a maximum average of fifty (50) parts per million (PPM) by volume during any eight (8) consecutive hours, and a maximum average of two hundred (200) parts per million (PPM) by volume during any fifteen (15) minute period.
- B. *Carbon Monoxide (CO) Detection and Warning System* – Enclosed parking garages containing thirty-five (35) or more parking spaces, the construction of which commenced after the effective date of this Regulation, and such other garages as may be required by the Department shall be equipped with an automatic CO detection and warning system, approved by the Department, with remote sensing or sampling points at each level of the parking garage. The owner or person responsible for the parking garage shall provide for periodic calibration and servicing of the CO monitoring system by trained personnel to ensure measurement accuracy and operational reliability. Where required by the Department, a continuous recording of ambient CO measurements within the enclosed parking garage shall be provided.
- C. The mechanical ventilation and CO detection and warning systems specified in Sections IV. A. and IV.B. of this Regulation shall be controlled and monitored from a

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central location accessible to operating, maintenance or security personnel at all times that the facility is in operation or available for use.

- D. *Emergency Action Procedure* – Subject to approval by the Department, the owner or person responsible for any enclosed parking garage equipped with a CO detection and warning system shall develop an Emergency Action Procedure to be followed in the event there is a failure of the mechanical ventilation system, a failure of the carbon monoxide monitoring system, or when the carbon monoxide concentration at any monitoring point in the enclosed parking garage exceeds design limits specified in Section IV.A. of this Regulation. Copies of the approved Emergency Action Procedure must be posted and maintained in the central control and monitoring location of the enclosed parking garage.

#### **Section V. Severability**

The provisions of this Regulation are severable and if any provision, sentence, clause, section or part thereof shall be held illegal, invalid, unconstitutional or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality or inapplicability shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of the ordinance or their application to him or to other persons and circumstances. It is hereby declared to be the legislative intent that this Regulation would have been adopted if such illegal, invalid, or unconstitutional provision, sentence, clause or part had not been included therein, and if the person or circumstances to which the ordinance or any part thereof is inapplicable had not specifically been exempted therefrom.

#### **Section VI. Effective Date**

This Regulation shall become effective upon adoption.

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CITY OF PHILADELPHIA  
DEPARTMENT OF PUBLIC HEALTH  
AIR POLLUTION CONTROL BOARD

AMENDMENTS TO  
AIR MANAGEMENT REGULATION XII  
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OPERATION OF AUTOMOTIVE FACILITIES EQUIPPED  
WITH MECHANICAL VENTILATION SYSTEMS

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Air Management Regulation XII *Approved:*

~~Pertaining to the Construction, Modification and Operation of Automotive  
Facilities Equipped with Mechanical Ventilation Systems~~

City of Philadelphia  
Department of Public Health  
Air Pollution Control Board

Approved By:  
~~Air Pollution Control Board~~.....  
..... June 13, 1978

Board of Health  
.....  
June 21, 1978

Department of Law.....  
..... June 28, 1978

Department of Records

..... August 1, 1978

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## Regulation XII

*Amendments Adopted:*

*Air Pollution Control Board* ..... \_\_\_\_\_, \_\_\_\_\_  
*Law Department Approval*... ..... \_\_\_\_\_, \_\_\_\_\_  
*Department of Records* ... ..... \_\_\_\_\_, \_\_\_\_\_

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**AMENDMENTS TO**  
**AIR MANAGEMENT REGULATION XII**  
**PERTAINING TO THE CONSTRUCTION, MODIFICATION, AND**  
**OPERATION OF AUTOMOTIVE FACILITIES EQUIPPED**  
**WITH MECHANICAL VENTILATION SYSTEMS**

**Section I.—— Definitions**

In addition to definitions provided in the Air Management Code, the following definitions apply to this Regulation:

**Automotive Facility** — Any building or structure, or portion thereof, which is used as ~~an~~ *an enclosed* parking garage, underground parking or loading facility or tunnel; excepting open parking lots, *mechanical access parking garages*, and garages of one-or- two family dwellings.

**Carbon Monoxide** — A colorless, odorless gas at standard conditions which has the molecular formula CO.

**Emergency Action Procedure** — A description of the automotive facility management's policy concerning personnel responsibilities and physical actions to be initiated in the event of equipment breakdown or when ambient conditions within the automotive facility pose a threat to the health and safety of employees or patrons.

**Enclosed Parking Garage** — *Any parking facility, building or structure used for the storage of more than ten (10) motor vehicles that is not an open parking garage as defined in Title 4 of The Philadelphia Code, Subcode "B" (The Philadelphia Building Code).*

**Mechanical Ventilation System** — Fans, blowers or other air moving devices with associated power systems, controls and air distribution network used for air handling in an enclosed space.

**Modification** — Alteration, reconstruction or conversion of any existing automotive facility; excepting minor repairs and alterations which do not materially alter the design and operating characteristics of the facility or its mechanical ventilation system, or increase the quantity, duration or resultant concentrations of carbon monoxide (CO) emissions generated within or exhausted from the facility.

**Open Parking Garage** — ~~Any~~ *Any above ground naturally ventilated parking facility, building or structure used for the storage of motor vehicles; excepting facilities having a capacity as defined in Title 4 of ten (10) vehicles or less, or facilities located entirely above grade having free openings to the atmosphere in excess of 50% of*

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~~the total vertical wall space on each parking level.~~ *The Philadelphia Code, Subcode "B"*  
*(The Philadelphia Building Code).*

## Section II.— *Applicability and General Provisions*

- A. ~~No~~ *On and after the effective date of this amended regulation, no person shall construct or modify any automotive facility, as defined in Section I and equipped with a mechanical ventilation system, before obtaining written approval from the Department a permit for such construction or modification; and no person shall operate any such automotive facility without annual certification by the Department that the facility is in compliance with all applicable provisions of this Regulation obtaining a license from the Department.*
- B. *No person shall operate any automotive facility, enclosed parking garage, or open parking garage with a mechanical ventilation system or carbon monoxide detectors, and constructed before the effective date of this amended regulation, without obtaining a license from the Department.*
- B.C. Nothing contained in this Regulation shall be ~~taken~~ *interpreted* to excuse or relieve any person from complying with any applicable requirement of ~~the~~ *The* Philadelphia Code or of any other regulation adopted thereunder.

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## Section III.— *Installation Permit and License Requirements*

- A. *Installation Permit Application and Automotive Facility Review, Approval And Certification Guidelines*  
*Request*

- A.—*The Department shall promulgate guidelines establishing mechanical ventilation, air monitoring, and related safety requirements for Approval Request automotive facilities. An application for approval a permit to construct or modify anyan automotive facility subject to this Regulation shall be made to the Department accompanied by the owner of such facility and shall include submission of sufficient information to allow evaluation of the Department to evaluate potential health hazards, both internal and external to the automotive facility, which that may result either directly or indirectly from theits operation of the automotive facility or its associated mechanical ventilation system.*

- B.—*Review Procedure and Guidelines*

~~The Department shall establish and publish procedures and guidelines related to the review and approval of automotive facilities and shall prescribe the information to be included with the request for approval. Such information shall include the following:~~

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**Location**

1. *The location and a general description of the automotive facility;*
2. *Information on the design, construction and operation of the automotive facility, including plans;*
3. *Information on the design, construction and operation of ~~the~~any associated mechanical ventilation system, including plans; and*
4. *Information on the design, installation, and operation of equipment to monitor carbon monoxide (CO) concentrations within the automotive facility, including plans related to detection and warning systems, where such equipment is required by this Regulation or by the Department as a condition of facility approval. Any additional information, plans, specification, evidence or documentation that the Department may require shall be furnished upon request, the Department; and*

**C. Approval and Certification**

**Approval**

5. *Any additional information, plans, specifications, evidence or documentation that the Department may require.*

**B. Issuance of Installation Permits and Licenses**

*The Department will issue a permit to construct or modify ~~any~~an automotive facility ~~subject to this Regulation shall be granted only upon a demonstration, to the satisfaction of the Department, that the facility is equipped with an adequate mechanical ventilation system, and, where required, a carbon monoxide (CO) monitoring system, and is capable of operation meeting the requirements of this Regulation to protect the public.~~*

*Further, approval to operate any automotive facility subject to this Regulation shall ~~be granted only upon a demonstration, to the satisfaction of the Department, that the facility is equipped with an adequate mechanical ventilation system, and, where required, a carbon monoxide (CO) monitoring system, and is capable of operation meeting the requirements of this Regulation to protect the public.~~*

*Licenses required by Section II of this amended regulation must be ~~obtained~~renewed annually and shall be made only upon certification by the. The Department, ~~through~~ may only issue such licenses upon the completion of an annual inspection at least once per year, that determines that the facility is in compliance with all applicable requirements of this Regulation and that regulation, the mechanical ventilation and carbon monoxide (CO) monitoring systems are properly installed, well maintained, in operation, and approved by applicable Automotive Facility Guidelines, and any permit for the Department facility issued pursuant to the Air Management Code, have been met.*

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**Section IV.— Enclosed Parking Garages**

In addition to the above, the following requirements shall apply ~~to~~specifically to enclosed parking garages subject to this Regulation:

A. ~~Mechanical ventilation systems of~~ Ventilation System – All Enclosed parking garages shall be equipped with a mechanical ventilation system designed and maintained to limit internal ambient concentrations of carbon monoxide (CO) to: a maximum average of fifty (50) parts per million (PPM) by volume during any eight (8) consecutive hours, and a maximum average of two hundred (200) parts per million (PPM) by volume during any fifteen (15) minute period.

B. ~~A#B.~~ Carbon Monoxide (CO) Detection and Warning System – Enclosed parking garages containing thirty-five (35) or more parking spaces, the construction of which commenced after the effective date of this Regulation, and such other garages as may be required by the Department, shall be equipped with an automatic carbon monoxide (CO) detection and warning system, approved by the Department, with remote sensing or sampling points at each level of the parking garage. The owner or person responsible for the parking garage shall provide for periodic calibration and servicing of the carbon monoxide (CO) CO monitoring system by trained personnel to ensure measurement accuracy and operational reliability. Where required by the Department, a continuous recording of ambient carbon monoxide (CO) measurements within the enclosed parking garage shall be provided.

C. The mechanical ventilation and carbon monoxide (CO) detection and warning systems specified in Sections IV. A. and IV.B. of the parking garage this Regulation shall be controlled and monitored from a central location accessible to operating, maintenance or security personnel at all times that the facility is in operation or available for use.

The  
D. Emergency Action Procedure – Subject to approval by the Department, the owner or person responsible for any enclosed parking garage equipped with a carbon monoxide (CO) detection and warning system shall submit to the Department for approval develop an Emergency Action Procedure and shall post and maintain a copy of the approved procedure to be followed in the central control and monitoring location of the parking garage. The Emergency Action Procedure shall be put into immediate effect by the responsible person on duty whenever there is a failure of the mechanical ventilation system or, a failure of the carbon monoxide monitoring system, or when the carbon monoxide concentration at any monitoring point in the parking garage exceeds 200 ppm during any fifteen enclosed parking garage exceeds design limits specified in Section IV.A. of this Regulation. Copies of the approved Emergency Action Procedure must be posted and maintained in the central control and monitoring location of the enclosed parking garage.

(15) minute period.

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## **Section V.— Severability**

The provisions of this Regulation are severable and if any provision, sentence, clause, section or part thereof shall be held illegal, invalid, unconstitutional or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality or inapplicability shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of the ordinance or their application to him or to other persons and circumstances. It is hereby declared to be the legislative intent that this Regulation would have been adopted if such illegal, invalid, or unconstitutional provision, sentence, clause or part had not been included therein, and if the person or circumstances to which the ordinance or any part thereof is inapplicable had not specifically been exempted therefrom.

## **Section VI.— Effective Date**

This Regulation shall become effective upon adoption.

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