

CITY OF PHILADELPHIA  
DEPARTMENT OF PUBLIC HEALTH  
AIR POLLUTION CONTROL BOARD

**AIR MANAGEMENT REGULATIONS I, II, III  
OF THE  
AIR POLLUTION CONTROL BOARD**

Adopted:

Air Pollution Control Board..... April 10, 1970

Approved:

Board of Health..... April 1, 1970

Department of Law.....April 15, 1970

Department of Records.....April 29, 1970

(Containing amendments and revisions through June 11, 2022)

**PREFACE TO AIR MANAGEMENT REGULATIONS<sup>1</sup>**  
**REGULATIONS I, II AND III**

(Containing amendments and revisions through June 11, 2022)

These Regulations have been developed to provide guidance for compliance with the Air Management Code. They specify limits and delineate procedures to be followed in improving the quality of the air for both the City of Philadelphia and the Delaware Valley Region.

In recognition of the concept that the atmosphere is a resource to be used by all, but which should not be abused by any, these Regulations are based on the principle that the use of the atmosphere for disposal of waste materials or for other purposes which tend to degrade the quality of the air for other users implies a responsibility to use every means available to limit bad effects resulting from such use.

To this end, the numbers set forth herein indicate levels which have been selected to represent limits possible under available technology and beyond which point justification for additional degradation can be properly required.

To enable public and technical examination of those instances for which technology might not yet be available to meet these desirable limits, a review mechanism has been provided with appropriate procedures set forth to make possible adjustments to specific needs. This relief is to be applied in cases where it is impossible to meet, by any known equipment, procedures, or changes in process, the proposed levels of control.

At such time as the maintenance and protection of the air resource has been established at the level representing the limits of today's technology, aerometric measurements and evaluation of air quality may properly be made. Then decisions can be planned to determine if unacceptable insults to the air resource still exist and what action is needed to get and maintain acceptable air quality for the Region.

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<sup>1</sup> This Preface is a brief explanatory statement describing the principle upon which the levels set by the Regulations are based. It is not to be construed as part of the Regulations; the provisions of the Regulations and the levels set therein are definite and should be consulted for any question of requirement.

**REGULATIONS OF THE AIR POLLUTION  
CONTROL BOARD  
CITY OF PHILADELPHIA, PENNSYLVANIA**

These Regulations are adopted pursuant to Section 5-302 of the Philadelphia Home Rule Charter, which reads as follows:

"The Air Pollution Control Board shall advise the Department of Public Health and the Board of Health on all matters pertaining to the control of air pollution and shall make reasonable regulations, not contrary to a statute or ordinance or to the regulations of the Board of Health."

These Regulations are also adopted pursuant to Title 3, Air Management Code, of the Philadelphia Code, specifically, Section 3-302, which reads in part as follows:

"The Air Pollution Control Board shall have the following powers and duties:

- (1) To promulgate regulations, implementing this Title, preventing degradation of air quality, preventing air pollution, eliminating air pollution nuisances and limiting, controlling, or prohibiting the emission of air contaminants to the atmosphere from any source..." and
- (2) To promulgate regulations to establish objectives for the quality of community air, to establish areas where objectives are applicable, and limiting, prohibiting, or otherwise controlling emissions to achieve this quality of air..."

## REGULATION I<sup>2 3 4</sup>

### GENERAL PROVISIONS

#### SECTION I. DEFINITIONS

- A. The following definitions are in the Air Management Code (§ 3-302) and apply to these Regulations:
1. *Aerosol* – A dispersion or suspension of small solid or liquid particles or any combination thereof in the air or other gaseous medium.
  2. *Ashes* – The residue from combustion, including cinders, flyash or any other solid material resulting from combustion, as well as partially combusted materials and unburned combustibles.
  3. *Air Contaminant* – Any smoke, soot, flyash, dust, cinders, dirt, noxious or obnoxious acids, fumes, oxides, gases, mists, aerosols, vapors, odors, toxic or radioactive substances, waste, particulate, solid, liquid or gaseous matter, or any other materials in the outdoor atmosphere.
  4. *Air Pollution* – The presence in the atmosphere of one or more air contaminants or combinations thereof in such quantities and of such duration that they are or may tend to be injurious to human, plant, or animal life, or property, or that interfere with the comfortable enjoyment of life or property or the conduct of business or other human activities.
  5. *Air Pollution Nuisance* – The emission or discharge of one or more air contaminants to the atmosphere meeting one or more of the following criteria:
    - a. In excess of emission standards promulgated by the Air Pollution Control Board;
    - b. In such quantity and of such duration that they do or may tend to:

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<sup>2</sup> Adopted April 1, 1970 by the Air Pollution Control Board. Approved April 1, 1970 by the Board of Health; April 15, 1970 by the Department of Law; April 29, 1970 by the Department of Records.

<sup>3</sup> Adopted June 2, 2016 by the Air Pollution Control Board. Approved June 8, 2016 by the Department of Law; August 11, 2016 by the Department of Records.

<sup>4</sup> Adopted July 26, 2018 by the Air Pollution Control Board. Approved August 7, 2018 by the Department of Law; Filed and made available to the public for comment on August 29, 2018 by the Department of Records.

- (1) interfere with health, repose, or safety;
- (2) cause severe annoyance or discomfort;
- (3) lessen food or water intake;
- (4) produce irritation of the upper respiratory tract;
- (5) produce symptoms of nausea;
- (6) be offensive, or objectionable, or both, to persons because of inherent chemical or physical properties;
- (7) be detrimental or harmful to health, comfort, recreation, living conditions, welfare, or safety;
- (8) cause injury or damage to real or personal property of any kind;
- (9) or interfere with the conduct of industry, commerce, or transportation.

6. *Board* – Means the Air Pollution Control Board.
7. *Cinders* – Particles consisting of fused ash or unburned matter.
8. *Carbon Dioxide (CO<sub>2</sub>)* – A colorless, odorless gas at standard conditions which has the molecular formula CO<sub>2</sub>.
9. *Commercial Fuel* – Liquid or gaseous fuel normally produced, manufactured, used, or sold for the purpose of creating useful heat.
10. *Condensed Fumes* – Minute solid particles generated by the condensation of vapors from solid matter after volatilization from the molten state, or generated by sublimation, distillation, calcination, or chemical reaction when these processes create airborne particles.
11. *Department* – The Department of Public Health, Health Commissioner or any authorized representative thereof.

12. *Dust* – Solid particles projected into the air and capable of temporary suspension therein.
13. *Facility* – The area, buildings and equipment used by any person at a single location in the conduct of business.
14. *Flyash* – Particulate matter capable of being gasborne or airborne and consisting essentially of fused ash and/or burned or unburned material.
15. *Fuel* – Any combustible matter.
16. *Fuel Burning Equipment* – Any device, machine, mechanism or structure used in the process of burning fuel for indirect heating.
17. *Fuel Merchant* – Any person who stores, offers for sale or sells commercial fuel in retail or wholesale trade, excluding agents, brokers, wholesalers, distributors or producers who sell commercial fuel for use in single steam and/or electric power generating facilities having rated hourly capacities that equal or exceed two hundred (200) million BTU gross heat input, or in a group of steam and/or electric power generating facilities at one location having a combined rated capacity which equals or exceeds four hundred and fifty (450) million BTU gross heat input.
18. *Fuel Oil* – A liquid or liquefiable petroleum product burned for lighting or for the generation of heat or power and derived directly or indirectly from crude oil.
19. *Household Appliances* – Any electric or gas operated device, commonly used in a dwelling, other than incinerators, heating systems, or hot water heating systems.
20. *Incinerators* – All devices, including but not limited to crematories, intended or used for the destruction of garbage or other combustible materials by means of burning, or for the salvage of materials by means of burning of extraneous materials.
21. *Installation, Equipment or Devices* – Any assembly or elements or components the operation of which does or may directly or indirectly affect the emission of air contaminants to the atmosphere.

22. *Minor Repairs and Alterations* – Repair or alteration of any part of any existing installation, equipment, or device which does not materially alter the quantity or character of discharge or emission into the atmosphere of air contaminants.
23. *Mist* – A suspension of any finely-divided liquid in any gas or atmosphere.
24. *Non-Commercial Fuel* – Liquid or gaseous fuel not normally produced, manufactured, used or sold for the purpose of creating useful heat.
25. *Odor* – Smells or aromas which are unpleasant to persons, or which tend to lessen human food and water intake, interfere with sleep, upset appetite, produce irritation of the upper respiratory tract, or create symptoms of nausea, or which by their inherent chemical or physical nature, or method of processing, are or may be detrimental or dangerous to health. Odors and smell are used herein interchangeably.
26. *Open Fires* – Any fire from which the products of combustion are emitted directly into the atmosphere without passing through a stack or chimney.
27. *Particulate Matter* – Any material, liquid or solid, except uncombined water, which exists in a finely divided form at standard conditions.
28. *Person* – Any individual, natural person, syndicate, association, partnership, firm, corporation, institution, agency, authority, department, bureau or instrumentality of federal, state or local government or other entity recognized by law as a subject of rights and duties.
29. *Smoke* – Small gas-borne particles resulting from combustion, consisting of carbon, ash, and other material.
30. *Soot* – Agglomerated particles consisting mainly of carbonaceous material.
31. *SSU Viscosity* – The number of seconds it takes 60 cubic centimeters of an oil to flow through the standard orifice of a Saybolt Universal Viscometer at 100° F.
32. *Stack or Chimney* – A flue, conduit or opening permitting particulate or gaseous emissions into the open air, or constructed or arranged for such purpose.

33. *Standard Conditions* – A gas temperature of 60 degrees Fahrenheit and a gas pressure of 14.7 pounds per square inch absolute.
34. *Sulfur Dioxide (SO<sub>2</sub>)* – A colorless gas at standard conditions which has the molecular formula SO<sub>2</sub>.
35. *Vapor* – The gaseous form of a substance which is in the liquid or solid state at customary atmospheric temperature or pressure.
36. *Viscosity* – The measure of a fluid's resistance to flow.
37. *Toxic Air Contaminant* – A chemical substance or material the discharge of which into the atmosphere, based upon relevant available scientific evidence establishing the toxic, mutagenic and/or carcinogenic effects of such substance or material, may pose a potential hazard to the community in terms of a significant increase in risk of acute or long-term health effects.

B. In addition to definitions provided in the Air Management Code, the following definitions apply to these Regulations.

1. *Abrasive Blasting* – The use of pressurized air or water to propel sand or other abrasive media in order to smooth, roughen, shape, and /or clean contaminants from a surface.
2. *Adequately Wetted* – The application of water or other liquid in sufficient quantity to prevent the emission of dust or other particulate matter.
3. *Anthracite Coal* – A hard, black, lustrous coal containing 85-95% carbon characterized by its small percentage of volatile matter, high specific gravity, hardness, nearly metallic luster, rich black color, and semi-conchoidal fracture. Volatile matter is usually less than seven (7) percent.
4. *Bituminous Coal* – A coal containing 70-85% carbon, leaving usually more than 7 percent volatile matter.
5. *Construction* – The erection, addition, conversion, improvement, modernization, rehabilitation, renovation, remodeling, repair or other alteration of any building, structure, real property or appurtenance thereto.



6. *Construction Material* – any material, regardless of composition, used in construction including but not limited to stone, masonry, concrete, cement, adhesive, caulk, gravel, brick, wood, vinyl, plastic, joint compound, sheetrock, dry wall, and asphalt.
7. *Construction Contractor* – Any person, corporation, partnership, sole proprietorship or other entity that performs or offers to perform construction, renovation, earthworks, or demolition activities.
8. *Demolition* – The dismantling, razing, wrecking, removal, or implosion of a structure or building in whole or in part.
9. *Dosage* – Is the summation of the hourly averages of the concentration of a pollutant in the atmosphere for the specified time in hours.
10. *Dust Collection or Dust Extraction System* – An engineering system designed to reduce exposure to airborne contaminants by capturing the emission at its source and transporting it to a safe emission point or to a filter/scrubber.
11. *Dust Impact Zone* – Area in and around a blasting site that will be impacted by implosion-generated dust settlement.
12. *Earthworks* - Clearing, grubbing, or earth disturbance of any land in excess of 5,000 square feet.
13. *Fugitive Dust* – Is any dust released or dispersed into the air by natural forces or mechanical processes which escapes from the premises where the dust originated.
14. *Owner or Operator of Earthworks, Construction, or Demolition Activity* – any person or entity who owns, leases, operates, controls, or supervises the property where earthworks, construction, and / or demolition occurs.
15. *PPM-Hrs (Parts per million-hours)* – Is the sum of the average ppm hourly dosages measured for the number of hours stated.
16. *Process Weight* – Is the total weight of all materials introduced into any specific process which process may cause any discharge into the atmosphere. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. "The Process Weight Per Hour" will

be derived by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle.

17. *Process* – Is any method, reaction, or operation whereby materials introduced into the process undergo physical change (i.e. the size, shape, appearance, state or other physical properties of the material are altered without changing chemical composition) or chemical change (i.e. a substance or substances with different chemical composition or properties are formed or created). A specific process, independent or production unit, is one which includes all of the equipment and facilities necessary for the completion of the transformation of the materials to produce a physical or chemical change. There may be several specific processes in series necessary to the manufacture of a product. However, where there are parallel series of specific processes, the similar parallel specific processes shall be considered as a single specific process for emission regulation.
18. *RUD-Hrs/1,000 ft. (Reflectance units of dirt shade-hours per 1,000 linear feet of air)* – Is the sum of the hourly RUDs/1000 ft. measured for the number of hours stated. RUDs/1,000 ft. are the measured percentage reflectance of the filter tape reduced by dividing by the number of thousands of feet of air actually drawn through the tape in the test.
19. *Soiling Index* – Is an expression of the measurement of the light reflectance of a stain produced on paper tape through which a set rate of air volume has passed for a period of time. The standard for this expression in these Regulations is RUD-hrs/1,000 ft.

## **SECTION II. SOURCE REGISTRATION AND EMISSION REPORTING**

### **A. Registration of Emission Sources**

#### **1. Installation Permits**

- a. No person shall build, erect, install, alter, or replace any article, machine, equipment, device, or other contrivance or appurtenance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants until an Air Management Permit, as specified by the Air Management Code, has been obtained for such installation and

construction. The permit shall remain in effect as specified by the Air Management Code.

- b. Within 60 days of receipt of an application for an installation permit, the Department shall act to approve or disapprove the application or notify the applicant that additional information is required.

## 2. Operating Licenses

- a. The person responsible for each source of emission of air contaminants must have a current operating license as specified by the Air Management Code.
- b. The application for a license to operate a new installation shall be filed at least two weeks in advance of the date of initial operation. Prior to the operation of the installation, the Department shall approve or disapprove the application, or notify the applicant that the installation is incomplete with approval withheld pending completion or that a period of demonstration or test operation is required before approval may be granted.

## 3. Submission of Source Information

- a. The Department shall establish procedures and forms for use in the review of applicants for permits and licenses. These procedures shall prescribe the information to be supplied in order to determine if the proposed installation will conform to these regulations.
- b. Information to be given in the permit or license application shall include, but not be limited to, the following:
  - (1) Description of the proposed installation.
  - (2) Design capacity of the process equipment including process weight and process weight per hour.
  - (3) Expected physical and chemical composition of the emissions and pertinent design criteria such as discharge rate, concentration, volume and temperature.

- (4) Type and general characteristics of the air pollution control equipment.
- (5) Description and evaluation of the location of the discharge point of emissions of air contaminants and other factors relating to the dispersion and diffusion of air contaminants in the atmosphere.
- (6) The relation of the discharge point to nearby structures and topography if necessary to appraise the possible effects of the emissions.
- (7) Type and general characteristics of any equipment for monitoring emissions and related alarm and recording systems.

Any additional information, plans, specifications, evidence or documentation that the Department may require shall be furnished upon request.

#### 4. Conditions of Source Approval

- a. Approval to construct, install, alter, replace, or operate any source of emission shall be granted only upon demonstration to the satisfaction of the Department that the source will not violate any provision of the Air Management Code or Regulations of the Air Pollution Control Board or prevent or interfere with attainment or maintenance of any national ambient air quality standard.
- b. Issuance of a permit or license shall not exempt any person from prosecution for violation of the Air Management Code, Regulations of the Air Pollution Control Board or any applicable laws of the Commonwealth of Pennsylvania or the United States Government. Where regulations are amended or new regulations adopted, the holders of permits and licenses issued prior to the effective date thereof shall comply with any new requirements within the period of time provided therein.

#### 5. Reporting Changes to Existing Installations

- a. Where it is planned to take any approved installation, equipment, or device out of service for any reason, except for normal plant

shutdowns, the Department shall be notified at least three days in advance. Where the reason for being out of service is breakdown, malfunction or similar emergency which may increase emissions, the Department shall be notified by telephone immediately with a written confirmation in 24 hours.

- b. No person shall change any installation such that the registered information concerning it is no longer accurate without first notifying the Department.
- c. Where a change of ownership occurs at any approved installation, the new owner shall notify the Department within 30 days of the change of ownership.

## B. Emission Reporting

### 1. Recording and Submission of Emission Information

- a. In addition to the provisions and requirements of Section II.A., the person responsible for any source of emission shall, upon notification from the Department, maintain such records as will disclose the nature, effects, extent, quantity or degree of air contaminants which are or may be discharged from such source or any other information as may be deemed necessary by the Department to determine compliance with applicable emission limitations or other control measures as well as the relative contribution of such source to air quality.
- b. The required information shall be summarized on source reporting forms supplied by or in a source reporting format as may be prescribed by the Department and shall be complete. The required information shall be submitted within 30 days after the receipt of a source reporting form or notification, unless a time extension has been granted by the Department. When notified by the Department of the necessity to submit an annual source report, the person responsible shall submit by March 1 of each year a source report for the preceding calendar year and, subsequent to the initial source report provided, each annual report shall include information for all previously reported sources, as well as for all new sources which began operation or sources which

were modified during the reporting period and not previously reported.

- c. Information recorded and copies of the source reporting forms submitted to the Department shall be retained by the person responsible for each source of emission for two years after the date on which the pertinent report was submitted. The person responsible shall also maintain and make available upon request by the Department records, including computerized records, that may be necessary to verify the information submitted in source reports and emission statements. These may include records of production, fuel usage, maintenance records for production or air pollution control equipment, or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions. If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed information by indirect means.

## 2. Emission Statements

- a. The person responsible for any source of emission that emits 25 or more tons of nitrogen oxides or volatile organic compounds per calendar year shall provide the Department with an emission statement showing the actual emissions of nitrogen oxides and volatile organic compounds from each such source during the prior calendar year. The emission statement shall be provided in a format as the Department may prescribe and that is acceptable to the U.S. Environmental Protection Agency (EPA), and shall include a detailed description of the method used to calculate or derive the emissions and the time period over which the calculation is based. The statement shall also include a certification by the individual owner, company officer, or plant manager that the information contained in the statement is accurate and complete.
- b. Annual emission statements shall be submitted to the Department by March 1 of each year for the preceding calendar year. The Department may require more frequent submittals if the Department determines that more frequent submissions are required by the EPA or that analysis of the data on a more frequent basis is necessary to implement

the requirements of the Air Management Code or Regulations of the Air Pollution Control Board.

3. Availability of Emission Data

Emission data obtained from source reporting forms and emission statements submitted to and verified by the Department will be correlated with applicable emission limitations and other control measures. All such emission data, or summaries thereof, will be available for public inspection at the Department during normal business hours.

C. Confidential Information

Any records, reports, information, or particular part thereof, other than emission data, relating to secret processes, methods of manufacture or production, or otherwise entitled to protection as trade secrets, provided to, required or obtained by the Department shall be kept confidential.

### **SECTION III. TESTING AND TEST METHODS**

A. The Department shall establish standard methods for the sampling and analysis of emissions to determine compliance with these Regulations.

These standards shall be published and made available upon request at the office of the Department.

B. Requirements for testing.

The Department may require any person to conduct, or have conducted, testing to determine compliance with these regulations. The Department may at its option witness or conduct such tests. Such testing will be done at a reasonable time, and all information gathered during a testing operation will be provided to both parties.

When the Department conducts or has such tests conducted, the person shall provide such sampling facilities, exclusive of instruments and sensing devices, as may be necessary to determine the quantity and character of emissions.

#### **SECTION IV. AVAILABILITY OF TECHNOLOGY**

Any person who believes that there does not exist technology adequate for an existing installation to meet the requirements of these regulations may request, within six months of the effective date, the Commissioner of Health or his designated representative to appoint an advisory committee of technical experts. The Commissioner of Health shall appoint the committee within two weeks of the receipt of such a request. The committee shall review the process and make a recommendation to the Department within 90 days, from the date of their appointment. This recommendation may be any of the following:

- A. Compliance with these regulations.
- B. Adoption of a regulation proposed by the committee governing the process, or processes, in question which provides for the application of known technology to control emissions.
- C. Approval of a compliance schedule which considers any unusual problems in adapting known technology to the process in question, but not to exceed two years.

If the committee fails to make a report and recommendation, this regulation shall apply.

The committee report shall be forwarded to the Air Pollution Control Board by the Department within two weeks of its receipt from the committee, together with its own recommendations, for consideration and action. For a period of 150 days from the appointment of the committee, the Health Commissioner may withhold prosecution.

#### **SECTION V. IMPROVEMENT AND PLAN**

Where an improvement plan and compliance schedule has been approved, as provided in the Air Management Code (Section 3-301(17)), the compliance schedule in the approved plan shall govern.

#### **SECTION VI. PRE-EXISTING REGULATIONS**

All existing regulations of the Air Pollution Control Board not in conflict with these Regulations shall remain in force.



## **SECTION VII. CIRCUMVENTION**

No person shall build, erect, install or use any article, machine, equipment or other contrivance, the sole purpose of which is to dilute or conceal an emission without resulting in a reduction in the total release of air contaminants to the atmosphere.

## **SECTION VIII. SEVERABILITY**

The provisions of these Regulations 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 or circumstances. It is hereby declared to be the legislative intent that these Regulations 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 IX. EFFECTIVE DATE**

Except as otherwise provided, these Regulations shall become effective upon adoption. The owner of any source of emission, in existence or under construction at the time of adoption, shall notify the Department, within six months from the effective date, of his intent to discontinue any operations or activities which cause any emission that result in an emission in violation of these Regulations or to control such emission to the extent required by these Regulations, or that the emission is in compliance. Within a period of twelve months from the effective date, compliance shall be obtained at all sources of emission within the scope of these Regulations.

## **SECTION X. COMPLIANCE WITH REGULATIONS OF THE ENVIRONMENTAL QUALITY BOARD OF PENNSYLVANIA**

No person shall discharge into the atmosphere any air contaminants in excess of the limits established in the regulations of the Environmental Quality Board of Pennsylvania, or shall utilize air contaminant control of less efficiency than required by the regulation of the Environmental Quality Board of Pennsylvania.

## **SECTION XI. COMPLIANCE WITH FEDERAL REGULATIONS**

The provisions of this Section shall apply to all existing, new, and modified stationary emission sources for which regulations have been promulgated by the Administrator of the Environmental Protection Agency pursuant to the following sections of the Federal Clean Air Act (42 USC Sect. 7401 et seq.) and Code of Federal Regulations, including future additions and amendments thereto, which are hereby incorporated by reference into these Regulations.

- A. Standards of Performance for New Stationary Sources (40 CFR, Part 60)
- B. National Emission Standards for Hazardous Air Pollutants (40 CFR, Part 61; 40 CFR, Part 63; and Section 112 of the Clean Air Act)
- C. Prevention of Significant Deterioration of Air Quality (40 CFR, Part 52, Section 52.21)

The Department, at any time, may request from the EPA Administrator delegation of authority to enforce specific portions of the referenced Federal regulations. Subsequent to published notice by the EPA Administrator approving such request, the Department shall act to enforce all limits, requirements and procedures for which authority has been delegated, and the owner of any affected source of emission shall comply with all applicable requirements within such time and manner as the Department may prescribe.

Nothing in this Section shall prohibit the Department from enforcing any applicable provision of the Air Management Code or any Regulation adopted thereunder.

## **SECTION XII. ALTERNATIVE EMISSION REDUCTION OPTIONS**

Any person responsible for a facility which discharges a given air contaminant from multiple emission points, each of which is subject to a specific emission limitation under these Regulations, may propose, for approval by the Department, an alternative emission control approach for a specified group of existing emission points, subject to the following conditions:

- A. It must be demonstrated by the person responsible for such facility that, at a minimum, the alternative mix of emission controls will achieve a total emission reduction for the specified emission points and result in an air quality impact equivalent to or better than that which would be achieved through application of the specific emission limits under these Regulations.

Emission characteristics for the points specified in the alternative control plan shall be based on actual operating conditions averaged over the three (3) calendar years immediately preceding the date of proposal submission. Whenever the Department determines that such period is not representative or applicable, the Department may specify a different baseline for determining actual emission characteristics.

- B. Air contaminants to be included under an alternative control approach must be comparable in nature, emissions must be quantifiable and trade-offs among emission points must be at least equal.
- C. Each alternative emission reduction proposal taken under consideration for approval by the Department shall be made available for public inspection and shall be subject to public notice and a hearing. Each alternative emission reduction plan approved by the Department shall be subject to submission as a revision to the Pennsylvania State Implementation Plan (SIP).
- D. Approval of any alternative emission reduction proposal for any facility shall be subject to a determination of consistency with the provisions and requirements of the U.S. EPA Policy Statement on Alternative Emission Reduction Options of December 11, 1979 (44FR71780), and any subsequent additions or revisions thereto.

## REGULATION II<sup>5 6 7</sup>

### AIR CONTAMINANT AND PARTICULATE MATTER EMISSIONS

#### SECTION I.

A. In addition to the previous citations, these Regulations are adopted pursuant to Title 3, Air Management Code, which provides in part as follows:

1. Section 3-202. Open Fires.

No person shall ignite, burn or permit the continuation of the burning of garbage, refuse, or other waste material, demolition materials, leaves, grass, weeds, trees, batteries, wire, tires, cars, vehicles, or parts thereof, or any other combustible material in an open fire. Any open burning for salvage purposes is prohibited. This requirement shall not apply to outdoor home cooking. A special exception may be made by order of the Commissioner of Health where the Fire Commissioner certifies an emergency exists which endangers the public safety, and the Health Commissioner finds that no practical alternative method of disposal of hazardous or flammable material exists. The conditions for allowing open fires shall be approved by both the Health and Fire Commissioners.

2. Section 3-302. Powers and Duties of the Air Pollution Control Board.

The Air Pollution Control Board shall have the following powers and duties:

- (1) To promulgate regulations, implementing this Title, preventing degradation of air quality, preventing air pollution nuisances, and limiting, controlling, or prohibiting the emission of air contaminants to the atmosphere from any sources. Such regulations may include, but are not limited to, the following:
  - (a) The concentration, volume, weight, and other characteristics of emissions of air contaminants to the atmosphere, the circumstances under which such emissions are permitted, and the degree of control of emissions of air contaminants required;

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<sup>6</sup> Adopted June 2, 2016 by the Air Pollution Control Board. Approved June 8, 2016 by the Law Department; August 11, 2016 by the Department of Records.

<sup>7</sup> Adopted July 26, 2018 by the Air Pollution Control Board. Approved August 7, 2018 by the Department of Law; Filed and made available to the public for comment on August 29, 2018 by the Department of Records.

- (b) the emissions of air contaminants to the atmosphere and related actions which are prohibited;
  - (c) the types and kinds of control measures and actions, equipment, storage and handling facilities, processes and systems, including specifications and/or performance requirements, which may be required to control or eliminate emissions of air contaminants to the atmosphere;
  - (d) the characteristics of fuels and wastes which may be combusted in the city, insofar as such characteristics may affect the emissions of air contaminants to the atmosphere;
  - (e) the density, opacity and duration of discharges and emissions of air contaminants to the atmosphere which obscure and reflect light, and the establishment of methods for evaluating density, opacity, equivalent opacity or density.
- B. These Regulations control, and/or prohibit, the discharge or escape of certain air contaminants and particulate matter in the atmosphere.

## **SECTION II. OPEN FIRES**

- A. No person shall ignite, burn or permit the continuation of the burning of garbage, refuse, or other waste material, demolition materials, leaves, grass, weeds, trees, batteries, wire, tires, cars, vehicles, or parts thereof, or any other combustible material in an open fire. Any open burning for salvage purposes is prohibited. Any person who operates, owns or controls premises where junk cars, demolition materials, refuse or other salvaged or waste materials are stored, processed or deposited, shall take all necessary measures to prevent fires and to extinguish any fires which may occur. Fire prevention measures shall include, among others, security measures to exclude unauthorized persons from entering upon the premises.

If a fire occurs when the premises are unattended, the Department may order fencing and/or a watchman to be employed by the owner, operator, or other person who controls the premises, for periods when there are no other attendants.

- B. It shall be *prima facie* evidence that the person who owns or controls property on which open burning occurs has caused or permitted said open burning.

### **SECTION III. TOXIC OR RADIOACTIVE AIR CONTAMINANTS**

The discharge of toxic or radioactive air contaminants is regulated under the provisions of Air Management Regulation VI, Control of Emissions of Toxic Air Contaminants.

### **SECTION IV. VISIBLE EMISSIONS**

1. No person shall discharge into the atmosphere from any single source of emission whatsoever any air contaminant, except uncombined water,
  - a. for a period or periods aggregating more than three minutes in any one hour which
    - (1) is equal to or darker in shade than that designated as No. 1 on the Ringelmann Chart, as published by the U. S. Bureau of Mines, or
    - (2) is equal to or darker than a comparable standard using such other charts or devices as the Department determines to be equivalent thereto; or
  - b. for any period, which is equal to or darker than No. 3 on the Ringelmann Chart, or its equivalent; or
  - c. of such opacity as to obscure an observer's view to an equal or greater degree than either (a) or (b) above;
  - d. The provisions of (a) above, do not apply to incinerators. Incinerators are regulated under the provisions of Air Management Regulation XI, Control of Emissions from Incinerators.
2. The provisions of (1) above shall apply to visible emissions of air contaminants that are white, black, shades of grey or colored.
3. Trained employees certified by the Department may make observations to determine compliance with the provisions of (1) and (2) above without direct reference to standards.

## **SECTION V. PARTICULATE MATTER EMISSIONS FROM THE BURNING OF FUELS**

No person shall cause, suffer, allow or permit to escape or to be discharged into the atmosphere any particulate matter resulting from the combustion of fuels in excess of the following rates:

1. From existing units legally constructed or installed under provisions in effect prior to the adoption of these Regulations, particulate matter emissions shall not exceed 0.20 pounds per million BTU gross heat input, except as provided below.
2. From units constructed or installed after the effective date of this Regulation, and any units not covered by (1) above, particulate matter emissions shall not exceed 0.10 pounds per million BTU gross heat input.
3. From existing units burning anthracite coal for space heating purposes subject to Section III(A)(2)(c) of Regulation III, particulate matter emissions shall not exceed the applicable limits set forth in Chapter 123, Standards for Contaminants, Section 123.11, Particulate Matter Emissions-Combustion Units, of the Pennsylvania Air Pollution Control Regulations.
4. From existing industrial units approved by the Department pursuant to Section III(A.3) of Regulation III for conversion to coal as an alternative or supplemental fuel, particulate matter emissions shall not exceed 0.12 pounds per million BTU gross heat input after July 1, 1980, and 0.06 pounds per million BTU gross heat input after July 1, 1984.
5. This section does not apply to motorized vehicles nor to incinerators.

## **SECTION VI. SELECTION OF FUEL FOR PARTICULATE MATTER EMISSION CONTROL**

The fuel used shall be compatible with the burning equipment and the furnace or boiler. Where there occur repeated violations of Sections IV or V, above, the Department may order the use of a specific alternate fuel.

## **SECTION VII. PARTICULATE MATTER EMISSIONS FROM CHEMICAL, METALLURGICAL, MECHANICAL AND OTHER PROCESSES**

No person shall cause, suffer, allow or permit the discharge, emission or escape of particulate matter into the atmosphere from chemical, metallurgical, mechanical or other processes for any one hour period in excess of the amount shown in Table I.

## **SECTION VIII. FUGITIVE DUST**

No person shall cause or permit the handling, transporting, storing or disposing of any substance or material which is likely to be scattered by the wind, or is susceptible to being wind-borne, without taking effective precautions or measures to prevent air contamination. No person shall operate or maintain, or allow or cause to be operated or maintained, any premises, open area, right of way, storage piles, or vehicle; or any construction, alterations, demolition, or wrecking operation; or any other enterprise which involves any material or substance likely to be scattered by the wind, or susceptible to being wind-borne, without effective precautions or measures to prevent air contamination. No person shall maintain, conduct, or use, or cause to be maintained, conducted, or used, any parking lot or similar area, unless the lot, area, or roadway is maintained in such manner as to prevent air contamination.

## **SECTION IX. CONTROL OF DUST FROM CONSTRUCTION AND DEMOLITION ACTIVITIES**

Notwithstanding Sections IV., VII., and VIII., of this Regulation governing visible, particulate, and fugitive dust emissions, the following requirements apply specifically to construction and demolition.

- A. Public Notification of Construction and Demolition Activities to Occupants of Nearby Properties
  - 1. The owner or operator of construction or demolition activity where the structure being constructed or demolished is less than two (2) stories in height shall:
    - a. No less than ten (10) days before commencing construction, or demolition activities, distribute written notification that: (1) identifies the owner and operator of the construction or demolition activity; (2) identifies the construction contractors working on the site; (3) states the date(s) and duration of the construction or demolition activity (4) identifies dust control measures that will be used on the worksite; (5) advises recipients to take precautionary measures to minimize dust exposure; and (6) includes contact



information for the Department. The written notification must be made on a form prescribed by the Department and must be distributed to the occupants of properties that are immediately adjacent to the worksite.

2. The owner or operator of any earthworks activity, or any construction or demolition activity where the structure being constructed or demolished is greater than or equal to two (2) stories in height shall:
  - a. No less than ten (10) days before commencing earthworks, construction, or demolition activities, distribute written notice that: (1) identifies the owner and operator of the construction or demolition activity; (2) identifies the construction contractors working on the site; (3) states the date(s) and duration of the construction or demolition activity; (4) identifies dust control measures that will be used on the worksite; (5) advises recipients to take precautionary measures to minimize dust exposure ; and (6) includes contact information for the Department. The written notification must be made on a form prescribed by the Department and, at a minimum, must be distributed to the occupants of the three (3) nearest properties on either side of the worksite, the seven (7) nearest properties across the street from the worksite, and the seven (7) nearest properties to the rear of the worksite.
3. If construction or complete demolition is to be performed to correct unsafe or imminently dangerous conditions as determined by the Department of Licenses and Inspections, the public notice requirements of Section IX.A.1.-2. of this Regulation must be completed as early as possible before commencement of such construction or demolition activities.
4. Copies of any written notification required by this Section must be retained at the worksite by the owner and operator, and otherwise be available for inspection by the Department. For any demolition, implosions, or earthworks performed pursuant to a Dust Control Permit issued under Section IX.B. of this Regulation, a copy of the written notification must be submitted to the Department no less than ten (10) days before such work begins.
5. The public notification requirements of Section IX.A. of this Regulation do not apply to the following activities:

- a. Construction, installation, or repair of structural beams, load bearing supports, walls, ceilings, floors, mechanical systems, electrical systems, plumbing, fixtures, cabinets, shelves, countertops, appliances, and other interior finishing work when such construction, installation, or repair will occur in a completely enclosed space or structure that is not open to the outside air.
- b. Demolition or removal of structural beams, load bearing supports, walls, ceilings, floors, mechanical systems, electrical systems, plumbing, fixtures, cabinets, shelves, countertops, and other interior finishing work when such demolition or removal will occur in a completely enclosed space or structure that is not open to the outside air.
- c. Installation or removal of portable units including: ventilation equipment, heating appliances, cooling units, evaporative coolers, clothes drying appliances, and fuel cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.
- d. Installation or removal of steam, hot or chilled water piping within any heating or cooling equipment regulated by Title 4 of The Philadelphia Code, known as the “Philadelphia Building Construction and Occupancy Code.”
- e. Construction or demolition of water tanks supported directly on grade where the tank capacity does not exceed five thousand (5,000) gallons and the ratio of height to diameter or width does not exceed 2-to-1.
- f. Construction, demolition, or repair of utility infrastructure (sewer, electrical, water, telecommunications), street furniture, sidewalks, surface streets, tunnels, bridges, and other similar structures within the public right-of-way.
- g. Replacement of exterior stairs, ramps, platform lifts, steps and landings accessory to a one- or two-family dwelling provided that the replacement does not exceed 6 feet in vertical height and does not encroach upon the public right-of-way; and the landing does not have a surface area greater than 36 square feet, with no individual

dimension greater than 6 feet. This exclusion does not provide for vertical enclosure of the covered element(s) except guards required by the Philadelphia Building Construction and Occupancy Code.

- h. Construction or demolition of sidewalks, driveways, patios, and similar concrete or other hard surface materials constructed on grade where they are not part of an accessible route. This exception includes decks of any material that are accessory to Group R-3 occupancies where the deck is located not more than twelve (12) inches above the ground surface below and is not over a story or basement.
- i. Installation or removal of non-masonry fences that do not exceed six feet in height.
- j. Construction or demolition of masonry fence walls that do not exceed two feet in height.
- k. Construction or demolition of retaining walls that do not exceed two feet in height measured from the lowest level of grade to the top of the wall. This exemption does not apply to retaining walls that support surcharges or impound Class I, II or III-A liquids.
- l. Installation of window awnings that are supported solely by, and do not project more than fifty four (54) inches from, the exterior wall of buildings containing Group R-3 or Group U occupancies.
- m. Replacement of non-fire-resistant rated windows and doors in one- and two-family dwellings without structural change (no change in shape or size of existing openings).
- n. Installation or removal of prefabricated swimming pools accessory to Group R-3 occupancies where the pool is less than twenty four (24) inches deep, does not exceed five thousand (5,000) gallons and is installed entirely above ground.
- o. Installation or removal of shade cloth structures constructed for nursery or agricultural purposes that do not include service systems.

- p. Installation or removal of swings, playground equipment, and structures limited to the use of a household pet, accessory to Group R-3 occupancies.
- q. Construction or demolition of temporary motion picture, television, or theater stage sets and scenery.
- r. Demolition of a structure or building to be performed at the worksite via implosion in compliance with the blasting operation guidelines promulgated by the Office of Emergency Management.
- s. Any other construction or demolition activity that the Department determines to be unlikely to release dust into the outside environment.

B. Dust Control Permits

1. Notwithstanding the public notification requirements set forth in Section IX.A. of this Regulation, no person shall -
  - a. completely demolish any building or structure that is more than three (3) stories, greater than forty (40) feet tall or encompasses more than ten thousand (10,000) square feet;
  - b. completely or partially demolish any building or structure by implosion; or
  - c. engage in earthworks as defined in Air Management Regulation I;

without first obtaining a permit from the Department.

2. The Department will not issue a permit pursuant to Section IX.B. of this Regulation unless and until the applicant has met all of the following requirements:
  - a. For demolitions and earthworks specified in Sections IX.B.1.a. and 1.c. of this Regulation, applicant must submit to the Department a permit application accompanied by the fee required pursuant to Section 3-307(f) of the Air Management Code. The permit application shall include:

- (1) the name, address, and telephone number of the construction contractor or other person responsible for the demolition;
  - (2) the name, address, and telephone number of the building or structure owner;
  - (3) the address and function (e.g. hospital, office, school, etc.) of the building or structure;
  - (4) a description of the anticipated demolition or earthworks activity, and the various procedures and related equipment that will be used to comply with work practices and requirements established by Section IX.C. of this Regulation, and any Alternative Methods Requests made pursuant to Section IX.E of this Regulation
  - (5) scheduled starting and completion dates for the project; and
  - (6) any other information which the Department may require.
- b. For implosions specified in Section IX.B.1.b. of this Regulation, applicant must submit to the Department a permit application accompanied by the fee pursuant to Section 3-307(f) of the Air Management Code at least ninety (90) calendar days prior to the scheduled starting date of the implosion. The permit application must include:
- (1) the name, address, and telephone number of the construction contractor or other person responsible for the implosion;
  - (2) the name, address, and telephone number of the building or structure owner;
  - (3) the address and function (e.g. hospital, office, school, etc.) of the building or structure;
  - (4) a description of the anticipated implosion activity, and the various procedures and related equipment that will be used to comply with work practices and requirements established by

Section IX.C. of this Regulation, and any Alternative Methods Requests made pursuant to Section IX.E of this Regulation;

- (5) plans for conducting air sampling, dust sampling, and post-implosion dust cleanup that comply with the requirements set forth in Section IX.D. of this Regulation;
  - (6) scheduled starting and completion dates for the implosion activity; and
  - (7) any other information which the Department may require.
3. A copy of any Dust Control Permit issued pursuant to Section IX.B. of this Regulation must be retained at the worksite and be available for inspection by the Department.

C. General Work Practice Standards

1. Emission of dust into the outdoor atmosphere from construction, demolition, and earthworks worksites, where such dust is visible at the point that it passes beyond the property line of said worksites, is prohibited.
2. No person shall engage in any cutting, sawing, grinding, wrecking, smashing, or mechanical breaking of construction materials on a worksite open to the outdoor air, absent use of one or more of the following dust control methods:
  - a. use of grinders, saws, or other power tools equipped with Dust Collection / Extraction Systems. All such tools and Dust Collection / Extraction Systems must be used in accordance with manufacturer recommendations.
  - b. Ensuring that construction materials or structure surfaces are adequately wetted, weather permitting (e.g. > thirty two (32) Degrees Fahrenheit at source of dust emission).
3. The requirements of Section IX.C.2.a. of this Regulation notwithstanding, dry abrasive blasting of exterior surfaces, building facades, and other surfaces open to the outdoor air is prohibited when the temperature at point of abrasive blasting is > thirty two (32) Degrees Fahrenheit. When the temperature at point of abrasive blasting is  $\leq$  thirty two (32) Degrees Fahrenheit, dry abrasive

blasting of exterior surfaces, building facades, and other surfaces open to the outdoor air will only be permitted if a temporary enclosure, maintained under negative air pressure and equipped with a Dust Collection / Extraction System, is erected around the immediate work area.

4. No construction material or debris shall be dropped more than twenty (20) feet to any point lying outside of the exterior walls of a building or outside of a structure, except through the use of a materials chute. All materials chutes, or sections thereof, shall be entirely enclosed, except for openings equipped with closures at or about floor level for the insertion of materials. At all stories below the top floor, such openings shall be kept closed when not in use. Chutes shall be designed and constructed of such strength as to eliminate failure due to impact of materials or debris loaded therein. To prevent dust emissions at the exit of the materials chute, all construction material or debris dropped through a materials chute must be adequately wetted to prevent dust emissions. Alternatively, the material chute exit must be sealed against the top of an appropriate container to prevent dust emissions.
5. Water, or other dust suppressants approved by the Department, must be applied to all worksites with ongoing filling, grading, excavation, land clearing, grubbing, or earthworks activities open to the outdoor air to prevent dust emissions. Application of water as the sole dust suppression agent is prohibited when the temperature drops below thirty two (32) Degrees Fahrenheit at source of dust emission.
6. Dust control fabric must be securely attached to any temporary worksite perimeter fencing. The dust control fabric material shall be a minimum of five feet in height as measured from the bottom of the perimeter fence, and have a minimum blockage of 50%.
7. Debris generated from earthworks, construction, and demolition activities must be adequately wetted and covered before being transported from the worksite.
8. Any soil, sand, aggregate, or other similar construction materials that are stored on a worksite open to the outdoor air must be adequately wetted and covered when possible to prevent dust emissions.
9. Sufficient drainage must be provided to prevent the uncontrolled discharge of water or other liquid applied to the site for dust control.

10. A 10-mph speed limit shall be observed by all equipment and trucks traveling within the worksite.
11. All roadways on the worksite, and all vehicle access points to the site, must be adequately wetted and swept of materials that will give rise to dust emissions. Vehicle access points must be equipped with dust track out prevention measures (e.g. wheel wash systems, rumble grates, and / or gravel pads).
12. The Department may promulgate Guidelines to establish new work practice requirements, or to clarify existing work practice requirements outlined in this Regulation.

D. Implosion Demolition Requirements

1. Air and Dust Sampling – No person shall demolish any building or structure via implosion without conducting sampling that demonstrates the impact of implosion generated dust in the Dust Impact Zone for the blasting site. Factors including, but not limited to, the location of the blasting site, the condition and use of the various properties around the blasting site, the structure or building to be demolished (e.g. area, height, construction, and age) via implosion, and the prevailing wind direction at the blasting site must be accounted for when designating the Dust Impact Zone, and the sampling locations within.
  - a. At minimum, eight (8) sampling locations spread out within the Dust Impact Zone must be identified. Air and dust wipe samples must be taken at each of the location as follows:
    - (1) Twenty Four – Forty Eight (24-48) Hours Before Implosion – airborne respirable dust sampling, airborne asbestos sampling, and dust wipe samples.
    - (2) Immediately Before Implosion – airborne respirable dust and airborne asbestos sampling only.
    - (3) Fifteen (15) Minutes After Implosion – airborne respirable dust and airborne asbestos sampling only.



- (4) Fifteen – One Hundred Twenty (120) Minutes After Implosion – airborne respirable dust sampling, airborne asbestos sampling, and dust wipe samples.
- b. All airborne asbestos samples required by Section IX.D.1.a. of this Regulation must be taken and analyzed in accordance with National Institute for Occupational Safety and Health (NIOSH) Method 7402 or Environmental Protection Agency (EPA) Interim Electron Transmission Microscopy Analytical Method, 40 C.F.R. § 763, Subpart E, Appendix A. Analysis of these samples must be completed by an analytical testing laboratory certified pursuant to § 6-604(3) of The Philadelphia Code.
  - c. All dust wipe samples required by Section IX.D.1.a. of this Regulation must be taken from window ledges in the vicinity of previously identified sampling locations and analyzed for lead content pursuant to EPA Method SW846/7420 by an accredited laboratory that participates in the Environmental Lead Proficiency Analytical Testing Program or the National Lead Laboratory Accreditation Program.
  - d. All airborne respirable dust samples must be taken and analyzed in accordance with an applicable NIOSH, EPA, Occupational Safety and Health Administration (OSHA) method, or other equivalent method approved by the Department.
  - e. Analysis of all airborne respirable dust, airborne asbestos, and dust wipe sample results must be submitted to the Department as promptly as possible, but no later than forty eight (48) hours following the implosion event.

2. Post Implosion Demolition Dust Clean Up

- a. Debris piles on the implosion site shall be adequately wetted as soon as practicable after the implosion event to suppress dust formation.
- b. All properties, buildings, and sidewalks around the worksite that are impacted by implosion generated dust shall be cleaned with water applied via hand sprayers.

- c. All streets around the worksite impacted by implosion generated dust must be cleaned with water and swept as necessary.
- d. Discharge of water applied for dust control or post implosion dust clean up pursuant to this Section into the City sewer system is prohibited.

E. Alternative Method Requests

The Department may approve alternative methods for dust control during construction and demolition activities. Any request for approval of alternative dust control measures shall include the reasons for not using the methods prescribed by Section IX.C.-D. of this Regulation, and descriptions of the proposed alternative methods.

F. Air Monitoring and Dust Sampling

The Department may require air monitoring and/or dust sampling during the performance of any filling, grading, excavation, land clearing, grubbing, earthworks, construction, or demolition activities at a worksite to verify that soil and other contaminants at the worksite will not have adverse impacts beyond the property line.

**TABLE 1**

<b>Process Wt. /hr. (lbs.)</b>	<b>Maximum Weight Disch. /hr. (lbs.)</b>	<b>Process Wt. /hr. (lbs.)</b>	<b>Maximum Weight Disch. /hr. (lbs.)</b>
50	.24	3300	5.36
100	.46	3400	5.44
150	.66	3500	5.52
200	.85	3600	5.61
250	1.03	3700	5.69
300	1.20	3800	5.77
350	1.35	3900	5.85
400	1.50	4000	5.93
450	1.63	4100	6.01
500	1.77	4200	6.08
550	1.89	4300	6.15
600	2.01	4400	6.22
650	2.12	4500	6.30
700	2.24	4600	6.37
750	2.34	4700	6.45
800	2.43	4800	6.52
850	2.53	4900	6.60
900	2.62	5000	6.67
950	2.72	5500	7.03
1000	2.80	6000	7.37
1100	2.97	6500	7.71
1200	3.12	7000	8.05
1300	3.26	7500	8.39
1400	3.40	8000	8.71
1500	3.54	8500	9.03
1600	3.66	9000	9.67
1700	3.79	10000	10.00
1800	3.91	11000	10.63
1900	4.03	12000	11.28
2000	4.14	13000	11.89
2100	4.24	14000	12.50
2200	4.34	15000	13.13
2300	4.44	16000	13.74
2400	4.55	17000	14.36
2500	4.64	18000	14.97
2600	4.74	19000	15.58
2700	4.84	20000	16.19
2800	4.92	30000	22.22
2900	5.02	40000	28.3
3000	5.10	50000	34.3
3100	5.18	60000	40.0
3200	5.27	or more	

## REGULATION III<sup>8 9 10</sup>

### CONTROL OF SULFUR COMPOUND EMISSIONS

#### SECTION I.

- A. This regulation is adopted pursuant to Title 3 of the Philadelphia Code, also known as the Air Management Code, which reads in part as follows:

“SECTION 3-207, SALE OF FUEL OIL

(1) Commercial Fuel Oil

- (a) No person may use or burn No. 2 or lighter grade of commercial fuel oil (SSU Viscosity at 100° F  $\leq$  45) containing sulfur by weight in excess of .0015% (15 ppm). No person, including any fuel merchant, may deliver, exchange in trade, or sell No. 2 or lighter grade of commercial fuel oil containing sulfur by weight in excess of .0015% (15 ppm) to be burned or used in Philadelphia.
- (b) No person may use or burn No. 4 or heavier grade of commercial fuel oil (SSU Viscosity at 100° F  $>$  45). No person, including any fuel merchant, may deliver, exchange in trade, or sell No. 4 or heavier grade of commercial fuel oil to be burned or used in Philadelphia.
- (c) Notwithstanding the requirements of subsections (a) and (b) above, No. 2 grade commercial fuel oil that was stored by the ultimate consumer at its Facility prior to July 1, 2015, and that has a sulfur content by weight not in excess of .2000% (2000 ppm); No. 4 grade commercial fuel oil (SSU Viscosity at 100° F  $>$ 45, but  $<$ 145) that was stored by the ultimate consumer at its Facility prior to April 1, 2020, and that has a sulfur content by weight not in excess of .2500% (2500 ppm); and No. 5 grade or heavier commercial fuel oil (SSU Viscosity at 100° F  $\geq$  145) that was stored by the ultimate consumer at its Facility prior to April 1, 2020, and that has a sulfur content by weight not in excess of .5000% (5000 ppm), may be used by the ultimate consumer at its Facility, provided that all of the following shall apply:

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<sup>8</sup> Adopted March 19, 2015 by the Air Pollution Control Board. Approved March 30, 2015 by the Department of Law; June 15, 2015 by the Department of Records.

<sup>9</sup> Adopted October 14, 2015 by the Air Pollution Control Board. Approved October 15, 2015 by the Department of Law; November 25, 2015 by the Department of Records.

<sup>10</sup> Adopted October 21, 2021 by the Air Pollution Control Board. Approved May 9, 2022 by the Department of Law; June 11, 2022 by the Department of Records.

- (.1) Any such ultimate consumer demonstrates to the Department, by means of written records (including but not limited to documentation from fuel suppliers), that any No. 2 grade commercial fuel oil delivered to the Facility after April 1, 2015 met the sulfur content standard set forth at subsection (a), above, and that no No. 4 grade or heavier commercial fuel oil has been delivered to the Facility after March 31, 2020, which records shall be maintained for as long as the user relies on this exemption;
  - (.2) Any such fuel oil may only be used at the Facility where such fuel oil was delivered and stored on or before June 30, 2015 (for No. 2 grade commercial fuel oil) or March 31, 2020 (for No. 4 or heavier grade commercial fuel oil); and
  - (.3) Any such fuel oil shall be consumed, brought into compliance, or otherwise eliminated from use no later than July 1, 2020 (for No. 2 grade commercial fuel oil) and no later than July 1, 2024 (for No. 4 or heavier grade commercial fuel oil).
- (d) Notwithstanding subsections (b) and (c) above, any public utility, as defined by Section 102 of the Pennsylvania Public Utility Code, 66 Pa.C.S. §102, and certificated by the Pennsylvania Public Utility Commission pursuant to 66 Pa. C.S. § 1101, et seq., authorizing it to offer, render, furnish, or supply steam to or for the public for compensation, shall be permitted to take delivery to a Facility owned by such public utility (and a vendor shall be permitted to sell or deliver), for use only at a Facility owned by the same public utility, of No. 4 or heavier grade of commercial fuel oil (SSU viscosity at 100° F > 45) through December 31, 2022.
- (e)
- (.1) Notwithstanding subsection (c)(.3), above, the Department shall have the authority to extend the exemption provided for in subsection (c) on a case by case basis through December 31, 2025 (for No. 2 grade commercial fuel oil) and through December 31, 2029 (for No. 4 or heavier grade commercial fuel oil), or such later time as the Department deems appropriate. The Department

shall grant or deny an extension request within sixty (60) days and shall base any decision on such a request on the following factors:

- (.a) The quantity and sulfur content of such fuel oil at the time of the request for the extension;
  - (.b) The quantity and sulfur content of such stored fuel as of July 1, 2015, unless the user demonstrates to the satisfaction of the department that the user could not reasonably obtain such information;
  - (.c) The expected impact to the public health and the environment of granting or denying the extension;
  - (.d) The economic impact to the user of granting or denying the extension (excluding the incremental cost of new fuel meeting the standard set forth in Section 3-207); and
  - (.e) Such other information as may be relevant.
- (.2) The Department's decision to deny an extension shall be reviewed in the same manner as any order, requirement, decision or determination rendered pursuant to the air pollution control program established pursuant to Section 3-401, including the denial or revocation of any license or permit.
- (.3) In addition to its authority under subsection 3-207(1)(e)(.1), the Department may establish by regulation standards for continued use of fuel oil subject to the exemption in subsection 3-207(c) after June 30, 2015.
- (f) The exemption in subsection 3-207(c) shall not apply to fuel oil merchants or distributors.
  - (g) The reselling of fuel oil subject to the exemption in subsection 3-207(c) for use in the City shall be prohibited.
  - (h) Notwithstanding the requirements of subsection (b) above, No. 4 or heavier grade commercial fuel oil (SSU Viscosity at 100° F > 45) may be produced and stored in Philadelphia so long as it is not burned or used in Philadelphia. The sale of No. 4 or heavier grade commercial fuel oil (SSU Viscosity at 100° F > 45) for use outside of Philadelphia is allowed.

(2) Non-Commercial Fuel

- (a) No person shall cause, suffer, allow or permit sulfur dioxide, caused by the combustion of non-commercial fuel or the combustion of non-commercial and commercial fuel mixtures, to be discharged from any stack or chimney into the outdoor atmosphere in excess of the following limits, expressed as ppm by volume adjusted to twelve (12) percent carbon dioxide by volume, or equivalent method approved by the Department:

Annual Average 250 ppm

Maximum Monthly Average 310 ppm

- (b) Where a single manufacturing facility contains multiple stacks or chimneys for discharge of flue gases from burning non-commercial fuels or non-commercial and commercial fuel mixtures, the emissions from any single stack may exceed the SO<sub>2</sub> concentration limits given in (2)(a) provided that it can be satisfactorily demonstrated to the Department that:

(.1) The emission rate of sulfur dioxide from non-commercial fuel combustion on a total weight basis for the facility will not exceed that allowed by (2)(a); and

(.2) The ground level concentrations of sulfur dioxide at any point in the neighborhood, area, or region caused by the combustion of all non-commercial fuel at the facility shall not exceed those concentrations that would result from compliance with (2)(a); and

(.3) The concentration of SO<sub>2</sub> emitted from any such stack does not exceed any limit imposed by regulations of the State of Pennsylvania or the U.S. Environmental Protection Agency, and

(.4) Compliance with (2)(b) shall not prevent the achievement or maintenance of any national air quality standard for SO<sub>2</sub> established by the Environmental Protection Agency.

- (c) Any person responsible for the discharge of SO<sub>2</sub> caused by the combustion of non-commercial fuel or the combustion of non-commercial and commercial fuel mixtures from any stack or chimney as

provided for in (2)(a) and (2)(b) shall submit a detailed report to the Department at least once every month, providing fuel usage and emissions information sufficiently adequate to determine compliance with this Section.”

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“SECTION 3-302, POWER AND DUTIES OF THE AIR POLLUTION CONTROL BOARD

The Air Pollution Control Board shall have the following powers and duties:

- (1) To promulgate regulations implementing this Title, preventing degradation of air quality, preventing air pollution, eliminating air pollution nuisances and, limiting, controlling, or prohibiting the emission of air contaminants to the atmosphere from any source. Such regulations may include, but are not limited to, the following:
  - (a) the concentration, volume, weight, and other characteristics of emissions of air contaminants to the atmosphere, the circumstances under which such emissions are permitted and the degree of control of emissions of air contaminants required;
  - (b) the emission of air contaminants to the atmosphere and related actions which are prohibited;
  - (c) the types and kinds of control measures and actions, equipment, storage and handling facilities, process and systems, including specifications and/or performance requirements, which may be required to control emissions of air contaminants to the atmosphere;
  - (d) the characteristics of fuels and wastes which may be combusted in the city, insofar as such characteristics may affect the emissions of air contaminants to the atmosphere.”

This Regulation controls, and/or prohibits, the discharge or escape of oxides of sulfur compounds to the atmosphere and controls and/or prohibits, the sulfur content of fuels burned in the City of Philadelphia. All available measures shall be taken to prevent the emission of oxides of sulfur to the atmosphere, but in no event shall the measures employed be less effective than those in the following sections.



## SECTION II. CONTROL OF SULFUR COMPOUND EMISSIONS

- A. No person shall cause or permit a specific source or process to emit sulfur oxides, calculated as sulfur dioxide (SO<sub>2</sub>), in excess of an average 0.4 ppm (volume) for any 5 minute period when measured at ground level.
  
- B. Except as provided in Section III, no person shall cause or permit a specific source or process to emit sulfur oxides in excess of 0.05 percent by volume. This requirement may not be met by diluting or diffusing exhaust gases.
  
- C. Compliance with this Regulation shall be determined by standard methods established by the Department which may include, but are not limited to, sampling, analysis, and stoichiometric calculations.

In addition, the Department will establish continuous emission monitoring and minimum data availability requirements for sulfur oxide sources. After the Department provides notice of these requirements, the person responsible for a specific sulfur oxide emission shall install, operate, and maintain an approved continuous emission monitoring system and shall submit monitoring result reports as required by the Department.

### SECTION III. CONTROL OF SULFUR IN FUELS

A. No person may store, offer for sale, sell, deliver for use, or trade exchange for use in Philadelphia, and no person may burn any fuels in Philadelphia where the sulfur content exceeds the following:

1. Fuel Oil shall not exceed the content limits of Section 3-207 of the Air Management Code except as provided in Air Management Code Sections 3-207(1)(c) – 3-207(1)(f) and Subsections III.D. and III.E. of this Regulation.
2. Coal shall not exceed 0.3 percent by weight.
3. Subject to compliance with Subsection III.B. hereof, any person responsible for any existing oil-fired or gas-fired industrial boiler installation containing combustion units with individual rated capacities of less than 250 million BTU per hour gross heat input, originally designed for and capable of burning coal, may petition the Department for approval to convert to coal as an alternate or supplemental fuel. The application must meet the following limitations, in place of the Subsection III.A.2. limitations:

The sulfur oxides emission, calculated as sulfur dioxide (SO<sub>2</sub>), shall not exceed a maximum daily average of 0.5 pounds per million BTU gross heat input from any combustion unit at any time.

In this Subsection, the term "industrial boiler installation" means any stationary steam-generating installation, consisting of one or more fuel combustion units, located within a manufacturing or chemical processing facility and operated to supply heat, process steam and/or power to the facility.

B. At installations where, pursuant to the Subsection III.A.1. and A.3. provisions hereof, equipment or methods, including the use of supplemental low-sulfur fuels, are used to reduce emissions from burning fuels with a higher sulfur content than that specified in Subsection A hereof, the equipment or method must be approved by the Department and the person responsible for the installation shall install, operate, and maintain an approved continuous emission monitoring system, provide adequate fuel-use record-keeping, and submit reports as the Department requires. In addition, the person responsible for the installation shall maintain an alternate fuel supply that complies with the sulfur content limits in Subsection III.A. hereof, as determined by the Department to be adequate for standby in case of equipment breakdown or other emergency condition.

- C. When low sulfur fuel delivery is, or is about to be, interrupted because of unavailability, accident, or other emergency conditions, the Department may authorize an alternative fuel supply use, involving the least adverse air quality impact, for no more than 30 days. The Department may authorize longer use periods, of up to 120 days, only after review and recommendation by the Air Pollution Control Board for each extended time period. Factors to be considered shall include: alternate complying fuels' availability, sulfur dioxide (SO<sub>2</sub>) stack gas removal equipment availability, and the anticipated effect on air quality in the neighborhood, area, and region. The Air Pollution Control Board, after a hearing, shall have the right to adjust, revoke, rescind, and make any changes or modifications to any authorizations if a change in low sulfur fuel availability or other factors discussed in this Subsection occurs.
- D. Extension of usage exemption for No. 2 grade commercial fuel oil beyond July 1, 2020:
1. Pursuant to Air Management Code Sections 3-207(1)(e)(.1) – 3-207(1)(e)(.3), users of No. 2 grade commercial fuel may apply, in writing, to the Department for permission to continue to burn existing stocks of non-compliant No. 2 grade fuel oil at a particular Facility beyond July 1, 2020. Such application shall be made on a form prescribed by the Department and shall include:
    - a. The identity of the tanks at the Facility storing the non-compliant No. 2 grade commercial fuel oil, the capacity of each tank, the quantity of the non-compliant No. 2 grade commercial fuel oil stored in each tank, and its sulfur content as of July 1, 2015;
    - b. For each tank with a total capacity greater than two thousand (2000) US gallons identified in Subsection III.D.1.a., the quantity, and sulfur content, of the stored non-compliant No. 2 grade commercial fuel oil in each tank for every 12 month period between July 1, 2015, and March 3, 2020;
    - c. Certification that No. 2 fuel oil that was purchased and subsequently stored at the Facility after July 1, 2015 complied, when purchased, with sulfur standards set forth in Air Management Code Section 3-207(1)(a);
    - d. Discussion of the impact of burning non-compliant No. 2 grade commercial fuel oil at the Facility beyond July 1, 2020 on public health

and the environment, and the anticipated economic impact on the applicant in the event the extension is not granted; and

- e. Any such other information deemed relevant by the Department.
2. Applications for the usage exemption provided in Subsection III.D. of this Regulation will be accepted by the Department starting on November 1, 2019. No such applications will be accepted after May 1, 2020. Consistent with Air Management Code Sections 3-207(1)(e)(.1) – (1)(e)(.3), the Department may revisit and extend these deadlines as it deems appropriate on a case by case basis.
  3. The sixty (60) day period provided by Air Management Code Section 3-207(1)(e)(.1) to review an application submitted pursuant to Subsection III.D. of this Regulation will begin to run only after such application is deemed complete by the Department.
  4. The time period of the usage exemption extension granted pursuant to Air Management Code Sections 3-207 (1)(e)(.1) – (1)(e)(.3) and Subsection III.D. of this Regulation will be set by the Department but may not extend beyond December 31, 2025. Consistent with Air Management Code Sections 3-207(1)(e)(.1) - (1)(e)(.3), the Department may revisit and extend this deadline as it deems appropriate on a case by case basis.
  5. Any usage exemption extension granted by the Department will terminate on: a) a date set by the Department pursuant to Subsection III.D.4. of this Regulation, or b) the date the No. 2 grade commercial fuel oil at a Facility is found in compliance with the Air Management Code Section 3-207(1)(a) standard, whichever occurs earlier.
- E. Extension of usage exemption for No.4 or heavier grade commercial fuel oil beyond July 1, 2024:
1. Pursuant to Air Management Code Sections 3-207(1)(e)(.1) – 3-207(1)(e)(.3), users of No. 4 or heavier grade commercial fuel may apply, in writing, to the Department for permission to continue to burn existing stocks of No. 4 or heavier grade fuel oil at a particular Facility beyond July 1, 2024. Such application shall be made on a form prescribed by the Department and shall include:

- a. The identity of the tanks at the Facility storing the No. 4 or heavier grade commercial fuel oil, the capacity of each tank, the quantity of the No. 4 or heavier grade commercial fuel oil stored in each tank, and its sulfur content as of July 1, 2024;
  - b. Discussion of the impact of burning the No. 4 or heavier grade commercial fuel oil at the Facility beyond July 1, 2024 on public health and the environment, and the anticipated economic impact on the applicant in the event the extension is not granted; and
  - c. Any such other information deemed relevant by the Department.
2. Applications for the usage exemption provided in Subsection III.E. of this Regulation will be accepted by the Department starting on November 1, 2023. No such applications will be accepted after December 31, 2024. Consistent with Air Management Code Sections 3-207(1)(e)(.1) - (1)(e)(.3), the Department may revisit and extend these deadlines as it deems appropriate on a case by case basis.
3. The sixty (60) day period provided by Air Management Code Section 3-207(1)(e)(.1) to review an application submitted pursuant to Subsection III.E. of this Regulation will begin to run only after such application is deemed complete by the Department.
4. The time period of the usage exemption extension granted pursuant to Air Management Code Sections 3-207(1)(e)(.1) – (1)(e)(.3) and Subsection III.E. of this Regulation will be set by the Department but may not extend beyond December 31, 2029. Consistent with Air Management Code Sections 3-207(1)(e)(.1) - (1)(e)(.3), the Department may revisit and extend this deadline as it deems appropriate on a case by case basis.