

**CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC HEALTH
AIR POLLUTION CONTROL BOARD**

**AIR MANAGEMENT REGULATION III
OF THE
AIR POLLUTION CONTROL BOARD**

THE CONTROL OF EMISSIONS OF OXIDES OF SULFUR COMPOUNDS

SECTION I.

- A. In addition to the above citations, these regulations are adopted pursuant to Title 3, the Air Management Code, which reads in part as follows:

"SECTION 3-207, SALE OF FUEL OIL

(1) Commercial Fuel Oil

- (a) On and after the effective dates listed herein no fuel merchant shall store, offer for sale, sell, deliver for use or exchange in trade, for use in Philadelphia, and no person shall use commercial fuel oils which contain sulfur in excess of the percentages by weight set forth in the following table:

Grades of Commercial Fuel Oil	Classification by SSU Viscosity at 100° F	Percent Sulfur by Weight		
		Effective 05-01-70	Effective 10-01-72	Effective 04-01-78
No. 2 and lighter	Less than or equal to 45.....	0.3%	0.3%	0.2%
No. 4	Greater than 45, but less than 145.....	0.7%	0.4%	0.3%
No. 5, No. 6 and heavier	Equal to or greater than 145.....	1.0%	0.5%	0.5%

- (b) The provisions of (a) above shall not apply in any case in which it is demonstrated to the Department that sulfur dioxide emissions, caused by the combustion of commercial fuel oils, from any stack or chimney into the outdoor atmosphere, can be controlled to levels that, on and after the effective dates listed herein, do not exceed at any time those quantities of sulfur dioxide, expressed in pounds per one (1) million BTU gross heat input, set forth in the following table:

Grades of	Classification by SSU	Permissible SO ₂ Emissions
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Commercial Fuel Oil	Viscosity at 100° F	(Pounds of SO ₂ per Million BTU Gross Heat Input)		
		Effective 05-01-70	Effective 10-01-72	Effective 04-01-78
No. 4	Greater than 45, but less than 145.....	0.74 lbs.	0.42 lbs.	0.30 lbs.
No. 5, No. 6 and heavier	Equal to or greater than 145.....	1.1 lbs.	0.52 lbs.	0.52 lbs.

(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 SO₂ 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 concentration 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 SO₂ 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 SO₂ established by the Environmental Protection Agency.

- (c) Any person responsible for the discharge of SO₂, 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."

"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 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."

These Regulations control, and/or prohibit, the discharge or escape of oxides of sulfur compounds to the atmosphere and control and/or prohibit, 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 EMISSION OF SULFUR COMPOUNDS

- A. No person shall cause or permit an emission from a specific source of oxides of sulfur calculated as sulfur dioxide (SO₂) which results in ground level

concentrations at any point in excess of 3.0 ppm (volume) at any time, an average 0.5 ppm (volume) for a 15 minute period, or an average of 0.1 ppm (volume) in any 8 hour period.

- B. Except as provided in Section III, no person shall cause or permit the emission of oxides of sulfur from a specific source or process in excess of 0.05 per cent by volume. Dilution or diffusion of exhaust gases is not an acceptable means of meeting this requirement.
- C. Compliance with the provisions and limitations set forth in this Regulation shall be determined by standard methods established by the Department which may include procedures for sampling and analysis or for stoichiometric calculations.

In addition, the Department may establish requirements for continuous emission monitoring and minimum data availability related thereto for sources of oxides of sulfur. When notified of such requirements by the Department the person responsible for a specific source of emission of oxides of sulfur shall install, operate and maintain an approved continuous emission monitoring system and shall submit reports of the results of such monitoring as prescribed by the Department.

SECTION III. CONTROL OF SULFUR IN FUELS

- A. No person shall store, offer for sale, sell, deliver for use, or exchange in trade for use in Philadelphia, and no person shall burn any fuels in the City of Philadelphia, except as provided below, the sulfur content of which exceeds the following:
 - 1. Fuel Oil shall not exceed the content limits of Section 3-207 of Title 3 (see above)
 - 2. Coal shall not exceed the following content limits:
 - a. Bituminous Coal shall not exceed two per cent by weight after May 1, 1970, one per cent by weight after July 1, 1971, and 0.3 per cent by weight after October 1, 1972.
 - b. Anthracite Coal except as provided in Subsection 2.c. below, shall not exceed 0.7 per cent by weight after May 1, 1970, and 0.3 per cent by weight after October 1, 1972.
 - c. Anthracite Coal used for space heating purposes shall not exceed 0.7 per cent after May 1, 1970, and 0.6 per cent by weight for existing space heating installations continuing to burn anthracite coal after October 1, 1980. No new coal burning facilities shall be

installed after the adoption of this Regulation that do not comply with Subsection 2.b. above.

3. Subject to compliance with the provisions of (B) below, any person responsible for any existing oil-fired and/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 the supplemental fuel with application of the following limitations in lieu of the limitations set forth in (2a) or (2b) above:

- a. Effective July 1, 1980, the emissions of oxides of sulfur, calculated as sulfur dioxide (SO₂), shall not exceed:

- (.1) an annual average for the installation of 0.6 pounds per million BTU gross heat input;
- (.2) a daily average of 1.0 pounds per million BTU gross heat input more than two (2) days in any running 30-day period from any combustion unit; and
- (.3) a daily average maximum of 1.2 pounds per million BTU gross heat input from any combustion unit at any time.

- b. Effective July 1, 1984, the emission of oxides of sulfur, calculated as sulfur dioxide (SO₂), shall not exceed a daily average maximum of 0.5 pounds per pounds per million BTU gross heat input from any combustion unit at any time.

For the purpose of this Subsection the term "industrial boiler installation" shall mean any stationary steam-generating installation, comprised 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 such facility.

4. As of the date of adoption of these amendments, the following companies have petitioned the Department, pursuant to (3) above, for approval to

convert their respective boiler installations to coal as a supplemental fuel:

Container Corporation of America 5000 Flat Rock Road
Publicker Industries Inc. Delaware Ave. & Bigler St.

Although the petitions have not been fully acted upon, the Department has made a preliminary determination relative to information submitted by the above-named companies that subject to compliance with the provisions of this Section the proposed coal conversions would not jeopardize the attainment or maintenance of any national ambient air quality standard. The Department finds this determination sufficient to satisfy the consistency demonstration required for submission of these amendments as revisions to the Pennsylvania State Implementation Plan.

Subsequent coal conversion requests submitted to the Department pursuant to (3) above shall be considered on a case-by-case basis and shall be individually subject to submission as revisions to the Pennsylvania State Implementation Plan.

- B. For those installations where, pursuant to the provisions of (1) and (3) above, equipment or methods, including the use of supplemental low-sulfur fuels, are used to reduce the emissions from the burning fuels with a higher sulfur content than that specified in (A) above, the equipment and/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 such reports as required by the Department to determine compliance with this Section. In addition, the person responsible for the installation shall maintain an alternate fuel supply, complying with the sulfur content limits in (A) above, as determined by the Department to be adequate for standby in the event of equipment breakdown or other emergency condition.
- C. When it appears that the delivery of low sulfur fuel is, or is about to be interrupted because of unavailability, accident, or other emergency conditions, the Department may authorize the use of an alternative fuel supply, involving the least adverse impact on air quality, for a period not to exceed 30 days. Longer periods of time of 120 days each may be authorized by the Department only after a review and recommendation made by the Air Pollution Control Board for each extended period of time. Factors to be considered shall include the availability of alternate complying fuels, the availability of sulfur dioxide stack gas removal equipment, 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 of any authorizations if there shall occur such change in the condition of availability of low sulfur fuel or the factors set forth in this subsection.