

THE CITY OF BOSTON
BOSTON AIR POLLUTION CONTROL COMMISSION

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BOSTON, MASSACHUSETTS 02201

REGULATIONS
FOR
THE CONTROL OF ATMOSPHERIC POLLUTION

Adopted under the provisions of
Section 31C, Chapter 111, General Laws

Adopted December 17, 1976

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FORWARD

The Boston Air Pollution Control Commission, acting under the authority of Section 31C of Chapter 111 of the GENERAL LAWS of the Commonwealth of Massachusetts, City of Boston Code, Ordinances, Title 7, Section 50; and every other act thereto enabling, hereby prescribes and establishes the following Regulations for the control of atmospheric pollution, which shall remain in force until further ordered and which may be amended or added to hereafter from time to time.

DEFINITIONS

When used in these Regulations or in communications, notices, or orders relative thereto, the following words and phrases shall have the meanings ascribed to them below:

1. **ABRASIVE BLASTING** means the propulsion, by means of or accompanied by a fluid under pressure, of a stream of sand or shot or other finely divided abrasive material, or the use of high-pressure water in conjunction with chemical solvents, for the purpose of abrading or cleaning a surface. It shall be known as **DRY-ABRASIVE BLASTING** if the fluid is air, steam, or other gas. It shall be known as **WET-ABRASIVE BLASTING** if the fluid is water or other liquid.
2. **ABRASIVE MATERIAL** shall include but not be limited to sand, shot, copper, iron or other slag, abrasive silicates, aluminum oxides, or organic abrasives.
3. **AIR CONTAMINANT** means any substance in the ambient air space and includes, but is not limited to dust, fly-ash, fume, mist, odor, smoke, vapor, pollen, micro-organism, radioactive material, radiation, heat, gas, any combination thereof, or any decay or reaction product thereof.
4. **AIR CONTAMINATION SOURCE** means any source at, from, or by reason of which any air contaminant is emitted directly or indirectly into the ambient air space.
5. **AMBIENT AIR SPACE** means the unconfined space occupied by the atmosphere above the geographical area of Boston.
6. **ATMOSPHERIC POLLUTION** means the presence in the ambient air space, or portion thereof, of one or more air contaminants or combinations thereof in such concentration and of such duration as:
 - a. to cause a nuisance; or

- b. to be injurious or tend to be, on the basis of current information, injurious to human or animal life, vegetation, or to property; or
 - c. to unreasonably interfere with the comfortable enjoyment of life and property or the conduct of business.
7. BITUMINOUS COAL means the current definition of bituminous coal or sub-bituminous coal as classified by the American Society for Testing and Materials.
 8. B.t.u. means British thermal unit, the amount of heat necessary to raise the temperature of one pound of water from 39°F to 40°F.
 9. COMMISSION means the Air Pollution Control Commission of the City of Boston.
 10. DISTILLATE FUEL OIL means the current definition of fuel oils grades number one (1) and two (2) as classified by the American Society for Testing and Materials.
 11. DUST means finely divided solid matter.
 12. EMISSION means a discharge or release to the ambient air space of any air contaminant.
 13. FLY-ASH means the aerosolized solid component of burned or partially burned fuel.
 14. FUEL means solid, liquid or gaseous material such as, but not limited to natural or manufactured gas, gasoline, oil, coal, or wood, used to produce heat or power by burning.
 15. FUEL OIL means a liquid petroleum product derived directly or indirectly from crude oil.
 16. FUME means any aerosol resulting from chemical reaction, distillation, or sublimation.
 17. GAS means the state of matter having neither independent shape nor independent volume but having a tendency to expand and diffuse infinitely.

18. MIST means any liquid aerosol formed by the condensation of vapor or by the atomization of liquids.
19. ODOR means that property of gaseous, liquid, or solid materials that elicits a physiologic response by the human sense of smell.
20. OPEN BURNING means the practice of burning under such conditions that the products of combustion are emitted directly to the ambient air space and are not conducted through a stack, chimney, duct, or pipe, and shall include but not be limited to outdoor burning of brush, leaves, debris, rubbish, and above or underground smouldering fires.
21. PARTICULATE MATTER means any material that exists in a finely divided form as a liquid or solid at ambient air temperatures, humidity, and pressures.
22. PERSON means an individual, partnership, association, firm, syndicate, company, trust, corporation, City department, bureau, or agency, or any other entity recognized by law as the subject of rights and duties.
23. RADIATION means any ionizing or non-ionizing electromagnetic or particulate radiation or any sonic, infrasonic, or ultrasonic wave.
24. RADIOACTIVE MATERIAL means any material or materials in combination (solid, liquid, or gaseous) which emit(s) ionizing radiation.
25. RESIDUAL FUEL OIL means the current definition of fuel oils grades number four (4), five (5), and six (6) as classified by the American Society for Testing and Materials.
26. SHIPPER means any person who distributes, sells, or transports fuels.
27. SMOKE means the visible aerosol, which may contain fly-ash, resulting from combustion of materials but does not mean condensed water vapor.
28. STANDARD SMOKE SCALE means the scale specified in the Standard Method of Test for Smoke Density in the Flue Gases from Distillate Fuels, ASTM D2156-65, as published by the American Society for Testing and Materials.
29. VAPOR means the gaseous state of certain substances that can exist in equilibrium with their solid or liquid states under standard conditions.

REGULATION 1. GENERAL PROHIBITION OF EMISSIONS

No person or persons owning, leasing, or controlling the operation of any air contamination source or sources shall willfully, negligently, or through failure to provide necessary equipment or facilities or to take necessary precautions, permit the emission from said air contaminant source or sources of such quantities of air contaminants which will cause a condition of atmospheric pollution.

REGULATION 2. FUELS

2.1 No person shall, unless otherwise allowed by the Massachusetts Department of Environmental Quality Engineering, cause or permit the use, in the City of Boston, of fuel which contains more than the following percentage of sulfur by weight:

- a. Bituminous coal - .36 per cent;
- b. Residual fuel oil - .5 per cent.

The determination of sulfur content shall be by the method of the American Society for Testing and Materials.

2.2 Upon the application of any person engaged in the operation of fuel-burning equipment using bituminous coal or residual oil as a fuel, the Commission may approve an alternative procedure to the restriction upon the sulfur content of fuels imposed by this section. The applicant must prove to the satisfaction of the Commission that the fuel-burning equipment is operated in such a manner or is equipped with such control apparatus as to continuously limit the emission of any sulfur compound or compounds. The emission rates shall be no greater than those that would be emitted from the burning at the same rate, in the same fuel-burning equipment but without such special operation or such control apparatus, of bituminous coal or residual fuel oil containing not more than the percentages of sulfur by weight specified in Regulation 2.1.

- a. Conditions for the issuance of or the continuation or renewal of an approval of alternative procedures as provided for in this section shall be a matter of agreement between the parties and shall be expressly stated. Failure to observe these conditions shall be grounds for revocation of the approval.

- b. The emission of any sulfur compound or compounds in an amount or at a rate greater than permitted by the terms of an approval of alternative procedures issued pursuant to this section is prohibited and will be cause for suspension or revocation by the Commission of the approval of alternative procedures or for such other action as it may deem appropriate.
- c. Regulation 2.2 is not a variance provision. It is not intended to constrain any application made pursuant to Regulation X for variance from the provisions of Regulation 2, nor to limit the scope or nature of such an application or any subsequent variance.

REGULATION 3. FUEL-BURNING EQUIPMENT USING COAL OR RESIDUAL FUEL OIL

- 3.1 No person or persons shall construct, build, install, or in any manner erect, or cause to be constructed, built, installed, or in any manner erected any fuel-burning equipment which utilizes coal or residual fuel oil for fuel, unless permission has been granted therefor in writing by the Massachusetts Department of Environmental Quality Engineering.
- 3.2 No person or persons shall convert or cause to be converted any fuel-burning equipment to the utilization of coal or residual fuel oil for fuel without approval in writing from the Massachusetts Department of Environmental Quality Engineering.
- 3.3 Regulation 3.1 shall not apply to the replacement of fuel oil burners and other auxiliaries to fuel-burning equipment.
- 3.4 The use of coal or residual fuel oil in fuel-burning equipment specified herein, which had been installed prior to January 1, 1971, shall be prohibited in accordance with the following provisions:
 - a. The use of No. 5 grade fuel oil as defined by the American Society for Testing and Materials is prohibited in all fuel-burning equipment with rated capacities of not more than 4,500,000 Btu per hour;
 - b. The use of bituminous coal or No. 6 grade fuel oil as defined by the American Society for Testing and Materials is prohibited in all fuel-burning equipment with rated capacities of not more than 9,000,000 Btu per hour.

- 3.5 The provisions of Regulation 3 shall not relieve any person of any obligation or duty to comply with any other law, statute, code, regulation, or ordinance of the Federal Government, Commonwealth of Massachusetts and City of Boston.

REGULATION 4. DENSITY OF PARTICULATE EMISSIONS FROM FUEL-BURNING EQUIPMENT USING DISTILLATE FUEL OIL OR GAS

- 4.1 Regulation 4 shall apply to all fuel-burning equipment using distillate fuel oil or gas having a rated capacity of more than 500,000 Btu per hour.
- 4.2 No person shall cause, suffer, allow or permit the emission of smoke, from fuel-burning equipment subject to Regulation 4, which has a shade, density, or appearance greater than smoke spot number 2 of the Standard Smoke Scale, as measured in accordance with the standard method of test of the American Society for Testing and Materials, ASTM D2156-65.
- 4.3 Any person owning, leasing, or otherwise controlling the operation of any fuel-burning equipment subject to Regulation 4 shall annually cause to be made such adjustments or maintenance as may be required to comply with this regulation. A certified statement of the maximum smoke density (Standard Smoke Scale) observed after such adjustments or maintenance shall be posted on said equipment. The said statement shall also show the date of observation and identify the person so certifying, who shall be a combustion facility technician as certified by the Commonwealth of Massachusetts Department of Environmental Quality Engineering, or shall hold an equivalent certification by the Department of Public Safety, or shall otherwise be acceptable to the Commission.
- 4.4 The provisions of Regulation 4 shall not relieve any person of any obligation or duty to comply with any other law, statute, code, regulation, or ordinance of the Federal Government, Commonwealth of Massachusetts, and City of Boston.

REGULATION 5. ABRASIVE BLASTING

- 5.1 Dry-abrasive blasting is prohibited except under the following circumstances:
- a. As part of a manufacturing process in which the abrasive process is completely enclosed without exhaust or discharge to the

atmosphere, or in which the abrasive process is enclosed and exhausted to the atmosphere in a manner and location approved in writing by the Commission;

- b. As part of a manufacturing, construction or repair process such as the construction or repair of vessels, conducted at a location zoned for manufacturing, and for which the Commission has granted an ANNUAL RENEWABLE PERMIT setting forth the location at and conditions under which such process may be conducted;
- c. Pursuant to a TEMPORARY PERMIT from the Commission, limited in time and specific to location, for the conduct of operations associated with the construction, reconstruction or renovation of a building or other structure.

5.2 Permits for the conduct of dry abrasive blasting shall be granted in writing by the Commission only upon the following general terms and conditions, and subject to such other special terms and conditions as the Commission shall find necessary to protect the public health and welfare:

- a. Application for permit (and for renewal of annual permit) shall be in writing, on a form provided or specified by the Commission or otherwise as the Commission shall direct;
- b. Dry abrasive blasting activities shall be so enclosed or curtained-off or so located and conducted as to prevent the escape onto public property, rights-of-way, or the property of others, of visible abrasive material. Enclosure(s) shall not be removed until all surfaces, including the ground in the vicinity, are thoroughly cleaned of all loose material attributable to the abrasive blasting operation;
- c. No materials containing free silica (e.g., sand), or re-used abrasives, shall be used for dry-abrasive blasting;
- d. Permits shall be issued for dry abrasive blasting only for purposes for which other means of surface preparation (e.g., wet abrasive blasting) are not feasible because of the nature of the surface and/or the nature of the required coating material(s) to be applied, and where there is no suitable alternative method.

5.3 Wet abrasive blasting is permitted only pursuant to the express written permission of the Commission or the Building Department. The times and

weather conditions during which such operations may be conducted may be limited or specified. All such operations shall be enclosed, curtain-off, and so located as to eliminate any public exposure to emissions from the operation. All surfaces shall be thoroughly cleaned of loose material prior to removal of any temporary structure.

- 5.4 Any of the following conditions shall be prima facie evidence of violation of Regulation 5:
- a. Visible emission of particulate matter, beyond the vertically-extended property line of the owner of the property on which abrasive blasting is permitted;
 - b. Deposition of visible amounts of particulate matter upon public or other private property;
 - c. Failure to obtain express written permission from the Commission to engage in abrasive blasting operations, or operating after denial of such permission.
- 5.5 Regulation 5 is enforceable by, and the authority of the Commission is hereby delegated to, the Commonwealth of Massachusetts Department of Environmental Quality Engineering, the Building Department, Health and Hospitals Department, and Police Department of the City of Boston, in addition to personnel of the Commission.

REGULATION 6. OPEN BURNING

- 6.1 No person shall cause, suffer, allow or permit the open burning of any combustible material within the boundaries of the City of Boston at any time unless the express written permission of the Commission has been obtained pursuant to Regulation 6.
- 6.2 Express written permission to conduct an open burning operation shall be subject to compliance with Section 1, Chapter 355, of the Acts of 1943.
- 6.3 A permit issued hereunder is made subject to any conditions or restrictions imposed by regulations of the Commonwealth of Massachusetts Department of Environmental Quality Engineering.
- 6.4 Regulation 6.1 shall not apply to:
- a. Open burning for the purpose of outdoor cooking;

- b. Open burning for the purpose of fire fighting training, provided a properly executed permit has been obtained from the Boston Fire Department and further provided that such a permit has been approved in writing by the Commission;
- c. Open burning related to the operation of devices such as blowtorches and welding torches, for which no alternative source of heat can be used;
- d. Open burning for the purpose of combating an existing fire by persons affiliated with an official fire fighting agency;
- e. Open burning associated with the normal pursuit of agriculture, which in the opinion of the Commission is deemed necessary;
- f. Open burning of brush and trees resulting from agricultural land clearing operations;
- g. Open burning of fungus-infested elm wood, provided that no suitable alternative method of disposal is available;
- h. Open burning of any combustible material which presents an imminent health hazard to the general public and for which no suitable disposal alternative is available;
- i. Open burning of Christmas trees during the period December twenty-sixth through January seventh, provided such burning is in compliance with General Laws Chapter 111, Section 142G;
- j. Open burning relate to the operation of tar kettles.

6.5 Regulation 6.4 d., e., f., g., h., and i. are limited to the following conditions:

- a. Good atmospheric ventilation;
- b. Use of smoke minimizing starter;
- c. Provided a properly executed permit has been obtained from the Boston Fire Department and further provided that such a permit has been approved in writing by the Commission;

- d. Without causing a nuisance.
- 6.6 No person shall place or store in the ambient air space combustible materials in such a manner as to cause or allow the presumption by the Commission that such material may be subjected to reduction by open burning.
- 6.7 Any open burning operation for which express written permission and/or permit from the Commission and/or the Boston Fire Department was not obtained, shall be prima facie evidence of violation of Regulation 6.
- 6.8 Regulation 6 is enforceable by, and the authority of the Commission is hereby delegated to, the Commonwealth of Massachusetts Department of Environmental Quality Engineering, the Health and Hospitals Department, Police Department, and Fire Department of the City of Boston, in addition to personnel of the Commission.

REGULATION X. VARIANCES

The Commission with the approval of the U.S. Environmental Protection Agency and the Commonwealth of Massachusetts Department of Environmental Quality Engineering may grant such variances to these Regulations as it may, after hearing, deem necessary and proper. Such hearings shall be public, and may be conducted by a designee of the Commission. The Commission may reject applications after review but without hearing.

The commission shall not by variance allow the creation of any condition of atmospheric pollution.

All grants of variances shall be in writing, and shall be effective for not more than one year. The initial grant shall specify whether the variance may be renewed or extended and shall establish the conditions for or time of final termination. No renewal shall be granted except on written application therefore. Any such application shall be made at least sixty (60) days prior to the expiration of the variance.

The City Clerk shall be notified of all variances granted or renewed by the Commission.

The applicant shall bear all the direct costs of processing the application, including the cost of advertising and holding any hearing, and preparing any record thereof. Notwithstanding the foregoing, the applicant shall not be

responsible for any portion of salaries of Commission or other City employees, or Commission overhead, or of the expense of witnesses called by the Commission on its behalf.

REGULATION Z. SEVERABILITY

Each of these Regulations shall be construed as separate to the end that if any Regulation or section, sentence, clause, or phrase thereof shall be held invalid for any reason, the remainder of these Regulations shall continue in full force.