

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION
NEW JERSEY ADMINISTRATIVE CODE
TITLE 7
CHAPTER 27
SUBCHAPTER 3

Control and Prohibition of Smoke from Combustion of Fuel

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Please note: The Department has made every effort to ensure that this text is identical to the official, legally effective version of this rule, set forth in the New Jersey Register. However, should there be any discrepancies between this text and the official version of the rule, the official version will prevail.

REGULATORY HISTORY

Promulgated: September 16, 1957

Effective: January 1, 1958

Revision Promulgated: November 10, 1971

Revision Effective: January 16, 1972

See: 3 N.J.R. 4(c), 3 N.J.R. 255(a)

Revision Promulgated: August 5, 1977

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See: 8 N.J.R. 375(a), 9 N.J.R. 420(a)

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Revision Operative: March 12, 2002

See: 33 N.J.R. 3290(a), 34 N.J.R. 756 (a)

7:27-3.1 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings unless the context clearly indicates otherwise.

“Department” means the Department of Environmental Protection.

“Direct heat exchanger” means equipment in which heat from the combustion of fuel is transferred to a substance being heated so that the latter is contacted by the products of combustion and may contribute to the total effluent.

“Fuel” means solid, liquid or gaseous materials used to produce useful heat by burning.

“Indirect heat exchanger” means equipment in which heat from the combustion of fuel is transferred by conduction through a heat-conducting material to a substance being heated, so that the latter is not contacted by, and adds nothing to, the products of combustion.

“Internal cross-sectional dimension” means any maximum linear perpendicular distance from an inside wall of a stack or chimney to the inside of an opposite wall, such as the diameter of a circular cross section or the length or width of a rectangular cross-section.

“Manufacturing process” means any action, operation or treatment embracing chemical, industrial, manufacturing, or processing factors, methods or forms including, but not limited to, furnaces, kettles, ovens, converters, cupolas, kilns, crucibles, stills, dryers, roasters, crushers, grinders, mixers, reactors, regenerators, separators, filters, reboilers, columns, classifiers, screens, quenchers, cookers, digesters, towers, washers, scrubbers, mills, condensers or absorbers.

“Marine installation” means equipment for propulsion, power or heating on all types of marine craft and floating equipment.

“Mobile source” means equipment designed or constructed to be portable or movable from one location to another including but not limited to aircraft, locomotives operating on rails, tractors, earth moving equipment, hoists and mobile power generators.

“Motor vehicle” means any vehicle propelled otherwise than by muscular power, excepting such vehicles as run only upon rails or tracks.

“Opacity” means the property of a substance which renders it partially or wholly obstructive to the transmission of visible light expressed as the percentage to which the light is obstructed.

“Ringlemann smoke chart” means the Ringelmann’s scale for grading the density of smoke as published by the United States Bureau of Mines or any chart, recorder, indicator or device which is approved by the Department as the equivalent of said Ringelmann’s scale for the measurement of smoke density.

“Smoke” means small gasborne and airborne particles, exclusive of visible condensed water vapor, arising from a process of combustion in sufficient number to be observable.

“Stack or chimney” means a flue, conduit or opening designed, constructed, and/or utilized for the purpose of emitting air contaminants into the outdoor air.

“Visible smoke” means smoke which obscures light to a degree readily discernible by visual observation.

7:27-3.2 Smoke emissions from stationary indirect heat exchangers

- (a) No person shall cause, suffer, allow or permit visible smoke to be emitted into the outdoor air from the combustion of fuel in any stationary indirect heat exchanger except as provided in (b) below.
- (b) No person shall cause, suffer, allow or permit smoke the shade or appearance of which is darker than number 1 on the Ringelmann smoke chart or greater than 20 percent opacity, exclusive of visible condensed water vapor, to be emitted into the outdoor air from the combustion of fuel in any stationary indirect heat exchanger having a rated hourly capacity of 200 million BTU or greater gross heat input and discharging through a stack or chimney having all internal cross-sectional dimensions of 60 inches or greater.
- (c) The provisions of (a) and (b) above shall not apply to smoke which is visible for a period of not longer than three minutes in any consecutive 30-minute period.

7:27-3.3 Smoke emissions from marine installations

- (a) No person shall cause, suffer, allow or permit smoke the shade or appearance of which is darker than number 1 on the Ringelmann smoke chart or greater than 20 percent opacity, exclusive of visible condensed water vapor, to be emitted into the outdoor air from the combustion of fuel in the indirect heat exchanger of any marine installation.
- (b) The provisions of (a) above shall not apply to smoke which is visible for a period of not longer than three minutes in any consecutive 30-minute period.

7:27-3.4 Smoke emissions from the combustion of fuel in mobile sources

No person shall cause, suffer, allow or permit smoke the shade or appearance of which is darker than number 2 on the Ringelmann smoke chart or greater than 40 percent opacity, exclusive of visible condensed water vapor, to be emitted into the outdoor air from the combustion of fuel in any mobile source for a period of more than 10 consecutive seconds.

7:27-3.5 Smoke emissions from stationary internal combustion engines and stationary turbine engines

No person shall cause, suffer, allow or permit smoke the shade or appearance of which is darker than number 1 on the Ringelmann smoke chart or greater than 20 percent opacity, exclusive of visible condensed water vapor, to be emitted into the outdoor air from the combustion of fuel in any stationary internal combustion engine or any stationary turbine engine for a period of more than 10 consecutive seconds.

7:27-3.6 Stack test

- (a) Any person responsible for the construction, installation, alteration or use of an indirect heat exchanger shall, when requested by the department, provide the facilities and necessary equipment for determining the density or opacity of smoke being discharged into the open air and shall conduct such smoke tests using methods approved by the department.
- (b) All smoke test data shall be recorded in a permanent log at such time intervals as specified by the department.
- (c) The data shall be maintained for a period of not less than one year and shall be available for review by the department.

7:27-3.7 Exceptions

- (a) The provisions of this subchapter shall not apply to the following:
 - 1. A direct heat exchanger;
 - 2. A manufacturing process;
 - 3. A motor vehicle while operating upon a public highway; or
 - 4. An emergency diesel generator that is located at a facility that generates electricity from nuclear power and that is subject to regulation by the Nuclear Regulatory Commission. However, this exception from the applicability of this subchapter shall apply only as follows:
 - i. During a test mandated by the Nuclear Regulatory Commission; or
 - ii. During a period when off-site supply of electricity is not available due to causes outside the control of the owner or operator of the facility and operation of the generator is needed for the protection of public health or welfare.