

CHAPTER 1161
Performance Standards

1161.01 General.

1161.02 Requirements.

1161.01 GENERAL.

(a) **New uses.** Any commercial or industrial use established after the effective date of this code shall comply with the minimum performance standards contained in this chapter.

(b) **Existing uses.** Existing lawfully conforming or nonconforming commercial and industrial uses which are not in compliance with the performance standards of this code are exempt from the requirements of this chapter. However, a use that does not comply with the standards shall not be increased in the degree of noncompliance. Such uses shall be permitted to be enlarged or altered provided that the enlargement or alteration complies with these performance standards.

(c) **Certification.** When necessary, the Director of Community Development or his designee may require of the applicant certification by a registered professional engineer or other qualified person, at the expense of the applicant, that the performance standards for a proposed use can be met.

1161.02 REQUIREMENTS.

(a) **Smoke.** The emission of smoke from any operation or activity shall not exceed a density or equivalent opacity permitted below. For the purpose of grading the density or equivalent opacity of smoke, the Ringelmann Chart as published by the United States Bureau of Mines shall be used.

- (1) In the C and RDP districts, the emission beyond lot lines of smoke darker in shade than Ringelmann No. 1 from any chimney, stack, vent, opening or combustion process shall be prohibited.
- (2) In the M districts, the emission of smoke darker in shade than Ringelmann No. 2 from any chimney, stack, vent, opening or combustion process beyond district boundary lines shall be prohibited, except that the emission of smoke of a shade not to exceed Ringelmann No. 3 is permitted for not more than three (3) minutes total in any one eight (8) hour period when starting or cleaning a fire.

(Ord. 03-244. Passed 7-8-03.)

(b) **Particulate matter.** No person shall operate or cause to be operated any furnace or combustion device for the burning of coal or other natural or synthetic fuels without using approved equipment, methods, or devices to reduce the quantity of gasborne or airborne solids or fumes emitted into the open air exceeding a rate permitted below at the temperature of 500 degrees Fahrenheit. For the purpose of determining the adequacy of such devices, these conditions shall apply when the percentage of excess air in the stack does not exceed 50 percent at full load. The foregoing requirement shall be measured by the A.S.M.E. Test Code for dust-separating apparatus. All other forms of dust, dirt and lye ash shall be completely eliminated insofar as escape or emission into the open air is concerned.

- (1) In the C and RDP districts, the emission of particulate matter suspended in air shall not exceed 0.35 grains (.0023 ounces) per standard cubic foot (70 degrees F. and 14.7 psia) of air during any one hour period or a total from all vents and stacks of one-half (1/2) pound per acre of lot area during any one hour period.
- (2) In the M districts, the emission of particulate matter suspended in air shall not exceed 0.35 grains (.0023 ounces) per standard cubic foot (70 degrees F. and 14.7 psia) of air during a one (1) one hour period for a total from all vents and stacks of three (3) pounds per hour per acre of lot area during any one hour period.
(Ord. 03-244. Passed 7-8-03.)

(c) **Toxic matter.** The release of airborne toxic matter from any operation or activity shall not exceed the fractional quantities permitted below of the Threshold Limit Values adopted by the American Conference of Governmental Industrial Hygienists. If a toxic substance is not listed, verification that the proposed level of toxic matter will be safe and not detrimental to the public health or injurious to plant and animal life shall be required. The measurement of toxic matter shall be on the average of any 24 hour sampling period.

- (1) In the C and RDP districts, the release beyond lot lines of airborne toxic matter shall not exceed one-eighth (1/8th) of the Threshold Limit Values.
- (2) In the M districts, the release beyond district boundary lines of airborne toxic matter shall not exceed one-eighth (1/8th) of the Threshold Limit Values.
(Ord. 03-244. Passed 7-8-03.)

(d) **Odor.** The emission of offensive odorous matter from an operation or activity shall not exceed the odor threshold concentration defined in the American Society for Testing and Material Method D1391-57 "Standard Method for Measurement of Odor in Atmosphere (Dilution Method)" as the level which will just evoke a response in the human olfactory system when measured as follows:

- (1) In the C and RDP districts, when measured five (5) feet above ground level, odorous matter shall not exceed the odor threshold concentration beyond lot lines.
- (2) In the M districts, when measured five (5) feet above ground level, odorous matter shall not exceed the odor threshold concentration beyond district boundary lines.
(Ord. 03-244. Passed 7-8-03.)

(e) **Vibration.** Earthborne vibrations from any operation or activity shall not exceed the displacement values below. Vibration displacement shall be measured with an instrument capable of simultaneously measuring in three mutually perpendicular directions. The maximum vector resultant shall be less than the vibration displacement permitted as determined by the following formula:

$$D = K/f \text{ where:}$$

D = displacement in inches
 K = constant given in table below
 f = frequency of the vibration transmitted through the ground in cycles per second

Constant K by Type of Vibration

District and Place of Measurement	Continuous	Impulsive (at least 1 second rest between pulses which do not exceed 1 second duration)	Less than 8 pulses per 24-hr period
C & RDP District: at lot lines	0.003	0.006	0.015
M Districts: at district boundary lines	0.030	0.060	0.150
at R Districts, recreational area, or school	0.003	0.006	0.015 boundary lines

(Ord. 03-244. Passed 7-8-03.)

(f) **Glare.** Glare or light from any operation and all lighting for parking areas or for the external illumination of buildings or grounds shall be directed or located in such a manner that all direct or indirect illumination shall not exceed .35 footcandles at an R district boundary and the source of light shall not be visible within an R district or within a lot of a conforming residential use in a C district.

(g) **Storage.** Except in the CC-2, CH-1, CI-1, M-1 and M-2 districts and in the CB-10 district during times that an establishment is open for business, the open storage of merchandise, materials and equipment shall not be permitted unless the following requirements are met:

- (1) Storage of merchandise, materials and equipment shall be completely

screened from view by a solid fence as required in Subsection (h) below.

- (2) All flammable/combustible materials shall be stored in compliance with Part 15 of the Codified Ordinances.

(Ord. 03-244. Passed 7-8-03.)

(h) **Screening.** Where a lot occupied by a commercial or industrial use is abutting or within 150 feet across a street, alley or railroad right-of-way from a residential lot in an R district, screening shall be preserved, planted or constructed and maintained by the owner of the commercial or industrial use in accordance with the provisions set forth below.

- (1) **Location.**

- A. Except for a use in the RDP district, screening shall be provided along side or rear lot lines in a manner sufficient to effectively obscure the residential use from view of the commercial or industrial use a minimum of six (6) feet above ground level.
- B. Across a street, alley or railroad right-of-way and in an RDP district, screening shall be provided in a location and manner sufficient to effectively obscure the residential use from view of all off-street parking and loading, storage or other such areas of activity associated with the commercial or industrial use a minimum of four (4) feet above ground level.

- (2) **Screening materials.**

- A. An evergreen planting screen of pyramidal *arbor vitae*, the plantings being at least three (3) feet high when planted and spaced four (4) feet on center, shall be used. However, other evergreen varieties may be used if approved by and spaced according to the City Forestry Division. Where because of physical limitations an *arbor vitae* screen will be ineffective, a taller variety of evergreen plantings shall be used. The planting bed shall have a minimum dimension of four (4) feet, be free of any impervious surface, and be separated from streets, drives and parking areas by an unmountable curb or barrier in such a manner that sand and saltwater runoff will not damage the screening.

(Ord. 03-244. Passed 7-8-03.)

- B. Alternative to a planting screen, a solid fence of durable construction; an earthen berm covered with grass or low shrubs; and/or other acceptable materials which provide maximum visual obscurity to a minimum height required by this code may be used. A solid fence shall not constitute a public nuisance as defined in Chapter 1323 of the Codified Ordinances of Springfield.

- (3) **Time of installation.**

- A. If a lot proposed for a commercial or industrial use is located adjacent to or opposite an existing residential use or subdivision in an R district, screening which meets the requirements of this chapter shall be installed prior to occupancy or commencement of the use. However, the Community Development Director or his designee may grant a delay to install plant materials during a more favorable part of the year. If a delay is granted, materials shall be installed before the seasonal calendar

- dates of June 1 or November 1, whichever comes first.
- B. If "A" above is not the case, screening need not be provided until within six (6) months after a building permit is issued for a residential use in an R district on adjacent or opposite land.
- (4) **Exceptions.**
- A. Screening need not be provided for cemeteries.
 - B. Screening may be waived by the Director of Community Development or his designee where the view is or will be blocked by a change in grade or by natural or man-made features to the same degree as would be provided by screening which meets the requirements of this chapter.
- (5) **Maintenance.** The owner shall keep all screening properly maintained, free of trash and litter, and all mature plant materials pruned in such a manner as to provide effective visual obscurity from the ground to the height required by this chapter.