

ARTICLE X
PERFORMANCE STANDARDS

10.1 NOISE:

- A. At no point on or beyond the boundary of any zoning lot shall the sound level resulting from any use or activity not hereafter specifically exempted, whether open or enclosed, exceed the maximum permitted decibel levels for the designated octave band as set forth by this Zoning Code.
- B. Sound levels shall be measured with a sound level meter and associated octave band analyzer manufactured according to standards prescribed by the American Standards Association. The flat network “slow” meter response of the sound meter shall be used. Impulsive type noises shall be measured with an Impact Noise Analyzer, and the peak values so measure shall not exceed the maximum permitted sound pressure levels by more than three (3) decibels. The reference level for the decibel is 0.0002 microbar.

Octave Band Center Frequency (Hertz)	Maximum Permitted Sound Level Pressure in Decibels
31.5	72
63	71
125	65
250	57
500	51
1000	45
2000	39
4000	34
8000	32

- C. The following uses and activities shall be exempt from the noise level regulations:
 - (1) Noises not directly under the control of the property user.
 - (2) Between the hours of 7:00 A.M. and sunset, noises customarily resulting from construction and the maintenance of grounds.
 - (3) The noise of safety signals, warning devices, aircraft and railroads, snow plowing, and mosquito abatement.
 - (4) Church bells, chimes and carillons.

10.2 VIBRATION:

- A. No operation or activity under the control of the property user other than railroad train operations shall cause or create vibration in excess of the limits provided below.

- B. Vibration levels may not exceed those shown in either column of the following table when measured at the lot line, or at any point in a residential or institutional district:

	Maximum Particle Velocity at Lot Line	Maximum Particle Velocity in District
Steady Vibrations	0.015	0.003
Impulsive Vibrations	0.03	0.006
Intermittent Vibrations	0.075	0.015

- C. Vibration displacements shall be measured with an instrument capable or simultaneously measuring in three mutually perpendicular directions. Particle velocity is to be determined by the formula: $(8.28) \times (F) \times (A)$, where F equals the frequency or the vibration in cycles per second and A equals the maximum single amplitude displacement of the vibrations in inches. For purposes of this Zoning Code:

Steady Vibrations: Vibrations in discrete impulses more frequent than one-hundred (100) per minute.

Impulsive Vibrations: Vibrations in discrete impulses which do not exceed one-hundred per minute, but exceed eight (8) per twenty-four (24) hours.

Intermittent Vibrations: Vibrations in discrete impulses which do not exceed eight (8) per twenty-four (24) hour period.

- 10.3 ODOR -- The emission of odors or odor-causing substances which exceed the odor threshold at or beyond the lot lines is prohibited. The measurement of the odor threshold shall be in accordance with the American Society for Testing and Materials Method DI391-57 "Standard Method for Measurement of Odor in Atmosphere (Dilution Method)" (Philadelphia: American Society of Testing and Materials, 1957).
- 10.4 SMOKE AND PARTICULATE MATTER -- The emission, from all sources within an commercial or manufacturing zoning lot, of particulate matter containing more than five (5) percent by weight, or particles having a particle diameter larger than forty-four (44) microns is prohibited. The rate of emission of particulate matter from all sources within the boundaries of any lot shall not exceed a net figure of one-half (1/2) pound per acre of lot size during any one hour. Dust and other types of air pollution borne by the wind from such sources as storage areas, yards, and roads within the boundaries of any lot shall be kept to a minimum by appropriate landscaping, paving, oiling, wetting or other acceptable means. The emission of smoke or particulate matter of a density greater than NO. 1 on the Ringelmann Chart as published by the U.S. Bureau of Mines is prohibited, except that Ringelmann No. 2 or No. 3 will be permitted for five (5) minutes during any eight hour period, for the purpose of building fires or soot blowing.
- 10.5 TOXIC AND NOXIOUS MATTER -- No emission which would be demonstrably injurious to human health, animals or plant life common to the region, on the ground at or beyond any lot line will be permitted. Where such emission could be produced as a result

of accident or equipment malfunction, adequate safeguards considered standard for safe operation in the industry involved shall be taken. This shall not be construed to prohibit lawful spraying of pesticides on public or private property.

10.6 FIRE AND EXPLOSIVE HAZARDS:

- A. The storage, utilization or manufacture of solid materials or products with the potential for free or active burning to intense burning (excluding household items in quantities customarily found in the home) shall be subject to approval of the local Fire Protection District.
- B. Activities involving the transportation, storage or utilization of materials or products which decompose by detonation are prohibited unless specifically licensed by the Village.
- C. The storage or utilization of flammable liquids or materials which produce flammable or explosive vapors shall be permitted in accordance with the following limitation, exclusive of storage in underground tanks and exclusive of storage of finished products in original sealed containers:
 - (1) Said materials or products shall be stored or utilized within completely enclosed buildings or structures having incombustible exterior walls and handled in accordance with the standards and regulations of the Village and the local Fire Protection District.
 - (2) All such buildings shall be set back at least forty (40) feet from all lot lines, or in lieu thereof; all such buildings shall be protected throughout by an automatic fire extinguishing system installed in accordance with the standards and regulations of the Village and the local Fire Protection District.

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