

Model Municipal Noise Ordinance

ARTICLE 1: PURPOSE

- 1.1. WHEREAS excessive sound is a serious hazard to the public health, welfare, safety, and the quality of life; and, WHEREAS a substantial body of science and technology exists by which excessive sound may be substantially abated; and, WHEREAS the people have a right to, and should be ensured an environment free from excessive sound, it is the policy of _____ to prevent excessive sound that may jeopardize the health, welfare, or safety of the citizens or degrade the quality of life.
- 1.2. This ordinance shall apply to the control of sound originating from stationary sources within the limits of _____

ARTICLE 2: DEFINITIONS

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

- 2.1. "Ambient Sound Level" is the total sound pressure level in the area of interest including the noise source of interest.
- 2.2. "A-Weighting" is the electronic filtering in sound level meters that models human hearing frequency sensitivity.
- 2.3. "Background Sound Level" is the total sound pressure level in the area of interest excluding the noise source of interest.
- 2.4. "Commercial Area" is a group of commercial facilities and the abutting public right-of-way and public spaces.
- 2.5. "Commercial Facility" is any premises, property, or facility involving traffic in goods or furnishing of services for sale or profit, including but not limited to:
 - a. Banking and other financial institutions;
 - b. Dining establishments;
 - c. Establishments for providing retail or wholesale services;
 - d. Establishments for recreation and entertainment;
 - e. Office buildings;
 - f. Transportation; and
 - g. Warehouses.
- 2.6. "Construction" is any site preparation, assembly, erection, repair, alteration or similar action, or demolition of buildings or structures.
- 2.7. "C-Weighting" is the electronic filtering in sound level meters that models a flat response (output equals input) over the range of maximum human hearing frequency sensitivity.
- 2.8. "dBA" is the A-weighted unit of sound pressure level.
- 2.9. "dBC" is the C-weighted unit of sound pressure level.
- 2.10. "Decibel (dB)" is the unit of measurement for sound pressure level at a specified location.
- 2.11. "Emergency Work" is any work or action necessary to deliver essential services including, but not limited to, repairing water, gas, electric, telephone, sewer facilities, or public transportation facilities, removing fallen trees on public rights-of-way, or abating life-threatening conditions.
- 2.12. "Impulsive Sound" is a sound having a duration of less than 1 s with an abrupt onset and rapid decay.
- 2.13. "Industrial Facility" is any activity and its related premises, property, facilities, or equipment involving the fabrication, manufacture, or production of durable or nondurable goods.
- 2.14. "Motor Vehicle" is any vehicle that is propelled or drawn on land by an engine or motor.
- 2.15. "Muffler" is a sound-dissipative device or system for attenuating the sound of escaping gases of an internal combustion engine.
- 2.16. "Multi-dwelling Unit Building" is any building wherein there are two or more dwelling units.
- 2.17. "The Municipality" is (*name of municipality in question.*)
- 2.18. "Noise" is any sound of such level and duration as to be or tend to be injurious to human health or welfare, or which would unreasonably interfere with the enjoyment of life or property throughout the

- Municipality or in any portions thereof, but excludes all aspects of the employer-employee relationship concerning health and safety hazards within the confines of a place of employment.
- 2.19. "Noise Control Administrator (NCA)" is the noise control officer designated as the official liaison with all municipal departments, empowered to grant permits for variances.
 - 2.20. "Noise Control Officer (NCO)" is an officially designated employee of the Municipality trained in the measurement of sound and empowered to issue a summons for violations of this ordinance.
 - 2.21. "Noise Disturbance" is any sound that (a) endangers the safety or health of any person, (b) disturbs a reasonable person of normal sensitivities, or (c) endangers personal or real property.
 - 2.22. "Person" is any individual, corporation, company, association, society, firm partnership, joint stock company, the Municipality or any political subdivision, agency or instrumentality of the Municipality.
 - 2.23. "Public right-of-way" is any street, avenue, boulevard, road, highway, sidewalk, or alley that is leased, owned, or controlled by a governmental entity.
 - 2.24. "Public Space" is any real property or structures thereon that is owned, leased, or controlled by a governmental entity.
 - 2.25. "Pure Tone" is any sound that can be judged as a single pitch or set of single pitches by the NCO.
 - 2.26. "Real Property Line" is either (a) the imaginary line, including its vertical extension, that separates one parcel of real property from another, or (b) the vertical and horizontal boundaries of a dwelling unit that is one in a multi-dwelling unit building.
 - 2.27. "Residential Area" is a group of residential properties and the abutting public rights-of-way and public spaces.
 - 2.28. "Residential Property" is property used for human habitation, including but not limited to:
 - a. Private property used for human habitation;
 - b. Commercial living accommodations and commercial property used for human habitation;
 - c. Recreational and entertainment property used for human habitation; and
 - d. Community service property used for human habitation.
 - 2.29. "Sound Level" is the instantaneous sound pressure level measured in decibels with a sound level meter set for A-weighting on slow integration speed, unless otherwise noted.
 - 2.30. "Measuring Instrument" is an instrument such as a sound level meter, integrating sound level meter or dosimeter used to measure sound pressure levels conforming to Type 1 or Type 2 standards as specified in the latest version of ANSI Standard S1.4-1983.
 - 2.31. "Sound Pressure Level (SPL)" is 20 multiplied by the logarithm, to the base 10, of the measured sound pressure divided by the sound pressure associated with the threshold of human hearing, in units of decibels.
 - 2.32. "Weekday" is any day, Monday through Friday, that is not a legal holiday.

ARTICLE 3: POWERS, DUTIES AND QUALIFICATIONS OF THE NOISE CONTROL OFFICERS AND ADMINISTRATORS

- 3.1. The provisions of this ordinance shall be enforced by the noise control officers (NCOs).
- 3.2. The noise control administrator (NCA) shall have the power to:
 - a. Coordinate the noise control activities of all municipal departments and cooperate with all other public bodies and agencies to the extent practicable;
 - b. Review the actions of other municipal departments and advise such departments to the effect, if any, of such actions on noise control;
 - c. Review public and private projects, subject to mandatory review or approval by other departments or boards, for compliance with this ordinance; and
 - d. Grant permits for variances according to the provisions of Article 9.
- 3.3. A person shall be qualified to be an NCO if the person has satisfactorily completed any of the following:
 - a. An instructional program in community noise from a certified noise control engineer, as evidenced by certification from the Institute of Noise Control Engineering (INCE);
 - b. An instructional program in community noise from another NCO; or
 - c. Education or experience or a combination thereof certified by the NCA as equivalent to the provisions of (a) or (b) of this section.

- 3.4. Noise measurements taken by a NCO shall be taken in accordance with the procedures specified in Article 5.

ARTICLE 4: DUTIES AND RESPONSIBILITIES OF OTHER DEPARTMENTS

- 4.1. All departments and agencies of the Municipality shall carry out their programs according to law and shall cooperate with the NCA in the implementation and enforcement of this ordinance.
- 4.2. All departments charged with new projects or changes to existing projects that may result in the production of noise shall consult with the NCA prior to the approval of such projects to ensure that such activities comply with the provisions of this ordinance.

ARTICLE 5: SOUND MEASUREMENT PROCEDURES

- 5.1. Insofar as practicable, sound will be measured while the source under investigation is operating at normal, routine conditions and, as necessary, at other conditions, including but not limited to, design, maximum, and fluctuating rates.
- 5.2. All tests shall be conducted in accordance with the following procedures:
- a. The NCO shall, to the extent practicable, identify all sources contributing sound to the point of measurement.
 - b. Measurements shall be taken at or within the property line of the affected person.
 - c. The measuring instrument must be calibrated using a calibrator recommended by the measuring instrument manufacturer before and after each series of readings.
 - d. The measuring instrument must be recertified and the calibrator must be recalibrated at least once each year by the manufacturer or by a person that has been approved by the manufacturer. A copy of written documentation of such recertification and recalibration shall be kept with the equipment to which it refers.
 - e. No outdoor measurements shall be taken:
 1. During periods when wind speeds (including gusts) exceed 15 mph;
 2. Without a windscreen, recommended by the measuring instrument manufacturer, properly attached to the measuring instrument;
 3. Under any condition that allows the measuring instrument to become wet (e.g., rain, snow, or condensation); or
 4. When the ambient temperature is out of the range of the tolerance of the measuring instrument.
- 5.3. The report for each measurement session shall include:
- a. The date, day of the week, and times at which measurements are taken;
 - b. The times of calibration;
 - c. The weather conditions;
 - d. The identification of all monitoring equipment by manufacturer, model number, and serial number;
 - e. The normal operating cycle of the sources in question with a description of the sources;
 - f. The ambient sound level, in dBA, with the sources in question operating;
 - g. The background sound level, in dBA, without the sources in question operating; and
 - h. A sketch of the measurement site, including measurement locations and relevant distances, containing sufficient information for another investigator to repeat the measurements under similar conditions.
- 5.4. Prior to taking noise measurements the investigator shall explore the vicinity of the source in question to identify any other sound sources that could affect measurements, to establish the approximate location and character of the principal sound source, and to select suitable locations from which to measure the sound from the source in question.
- 5.5. When measuring continuous sound, or sound that is sustained for more than 1 s at a time, the measuring instrument shall be set for A-weighting, slow response, and the range (if the measuring instrument is designed to read levels over different ranges) shall be set to that range in which the meter reads closest to the middle of the scale. The minimum and maximum readings shall be recorded to indicate the range of monitored values along with the central tendency average most often displayed.

- 5.6. The measuring instrument shall be placed at a minimum height of 3 ft above the ground or from any reflective surface. When handheld, the microphone shall be held at arm's length and pointed at the source at the angle recommended by the measuring instruments manufacturer.
- 5.7. If extraneous sound sources, such as aircraft flyovers or barking dogs, that are unrelated to the measurements increase the monitored sound levels, the measurements should be postponed until these extraneous sounds have become of such a level as not to increase the monitored sound levels of interest.
- 5.8. The monitoring session should last for a period of time sufficient to ensure that the sound levels measured are typical of the source in question.
- 5.9. The background sound levels shall be subtracted from the measured sound levels of the source of interest by using Table 1 to determine the sound levels from the source of interest alone. If the ambient sound level is less than 3 dBA higher than the background sound level, the source level cannot be derived and a violation of the ordinance cannot be substantiated.

Table 1 Correction for Background Levels*

Difference Between Ambient and Background Sound Levels	Correction Factor to Be Subtracted from Ambient Level for Source Level
3	3
4,5	2
6-9	1
10 or more	0

*In dBA

ARTICLE 6: SOUND LEVEL LIMITATIONS

- 6.1. No person shall cause, suffer, allow, or permit the operation of any sound source on a particular category of property or any public space or right-of-way in such a manner as to create a sound level that exceeds the background sound level by at least 10 dBA during daytime (7:00 a.m. to 10:00 p.m.) hours and by at least 5 dBA during nighttime (10:00 p.m. to 7:00 a.m.) hours when measured at or within the real property line of the receiving property, except as provided in Section 6.1.1. Such a sound source would constitute a noise disturbance.
 - 6.1.1. If the background sound level cannot be determined, the absolute sound level limits set forth in Table 2 shall be used.
 - 6.1.2. If the sound source in question is a pure tone, the limits of Table 2 shall be reduced by 5 dBA.

TABLE 2 Maximum Permissible Sound Levels*

Source Property	Receiving Property		Commercial (All times)
	Residential 7:00 a.m.-10:00 p.m.	Residential 10:00 p.m.-7:00 a.m.	
Residential	55	50	65
Commercial	65	50	65
Industrial	65	50	65

*In dBA. These levels would be appropriate for typical suburban environments. Urban environments may allow for limits that are 5 to 10 dBA higher and rural or quiet suburban environments may allow for limits that are 5 to 10 dBA lower than those listed. The specific limitations should be based on the environment and tastes of the municipality.

- 6.1.3. Nonrepetitive impulsive sound sources shall not exceed 90 dBA or 120 dBA at or within a residential real property line, using the fast meter response speed.
- 6.1.4. In multi-dwelling unit buildings, if the background sound level cannot be determined, the daytime limit is 45 dBA and the nighttime limit is 35 dBA for sounds originating in another dwelling within the same building.
- 6.2. The following are exempt from the sound level limits of Section 6.1:
 - a. Noise from emergency signaling devices;

- b. Noise from an exterior burglar alarm of any building provided such burglar alarm shall terminate its operation within 5 min of its activation;
 - c. Noise from domestic power tools, lawn mowers, and agricultural equipment when operated between 7:00 a.m. and 8:00 p.m. on weekdays and between 8:00 a.m. and 8:00 p.m. on weekends and legal holidays, provided they generate less than 85 dBA at or within any real property line of a residential property;
 - d. Sound from church bells and chimes when a part of a religious observance or service;
 - e. Noise from construction activity provided all motorized equipment used in such activity is equipped with functioning mufflers, except as provided in Section 7.2(f);
 - f. Noise from snow blowers, snow throwers, and snow plows when operated with a muffler for the purpose of snow removal.
- 6.3 When the source being analyzed is a stereo system with low frequency signals as part of its output, the stereo shall not cause a “C” weighted level of 10dB or greater above the “C” weighted ambient level at a distance of 10 feet from the source, or the complainant’s property line, which ever is greater.

ARTICLE 7: SPECIFIC PROHIBITED ACTS

- 7.1. No person shall cause, suffer, allow, or permit to be made verbally or mechanically any noise disturbance, as defined in Section 6.1.
- 7.2. No person shall cause, suffer, allow, or permit the following acts:
- a. Operating, playing, or permitting the operation or playing of any radio, television, phonograph, or similar device that reproduces or amplifies sound in such a manner as to create a noise disturbance (as defined in Section 6.1) for any person other than the operator of the device;
 - b. Using or operating any loudspeaker, public address system, or similar device between 10:00 p.m. and 8:00 a.m. the following day, such that the sound therefrom creates a noise disturbance (as defined in Section 6.1) across a residential real property line;
 - c. Owning, possessing, or harboring any animal or bird that, frequently or for continued duration, generates sounds that create a noise disturbance (as defined in Section 6.1) across a residential real property line;
 - d. Loading, unloading, opening, closing, or other handling of boxes, crates, containers, building materials, liquids, garbage cans, refuse, or similar objects, or the pneumatic or pumped loading or unloading of bulk materials in liquid, gaseous, powder, or pellet form, or the compacting of refuse by persons engaged in the business of scavenging or garbage collection, whether private or municipal, between 9:00 p.m. and 7:00 a.m. the following day on a weekday and between 9:00 p.m. and 9:00 a.m. the following day on a weekend day or legal holiday except by permit, when the sound therefrom creates a noise disturbance (as defined in Section 6.1) across a residential property line;
 - e. Operating or permitting the operation of any motor vehicle whose manufacturer’s gross weight rating is in excess of 10,000 lbs, or any auxiliary equipment attached to such a vehicle, for a period of longer than 5 min in any hour while the vehicle is stationary, for reasons other than traffic congestion or emergency work, on a public right-of-way or public space within 150 ft of a residential area between 8:00 p.m. and 8:00 a.m. the following day;
 - f. Operating or permitting the operation of any tools or equipment used in construction, drilling, earthmoving, excavating, or demolition work between 6:00 p.m. and 7:00 a.m. the following day on a weekday or at any time on a weekend day or legal holiday, except for emergency work, by variance issued pursuant to Article 9, or when the sound level does not exceed any applicable relative or absolute limit specified in Section 6.1.

ARTICLE 8: EXEMPTIONS

- 8.1. The provisions of this ordinance shall not apply to:
- a. The generation of sound for the purpose of alerting persons to the existence of an emergency except as provided in Section 6.2(b);
 - b. The generation of sound in the performance of emergency work; or

- c. The generation of sound in situations within the jurisdiction of the Federal Occupational Safety and Health Administration.
- 8.2. Noise generated from municipally sponsored or approved celebrations or events shall be exempt from the provisions of this ordinance.

ARTICLE 9: VARIANCE CONDITIONS

- 9.1. Any person who owns or operates any stationary noise source may apply to the NCA for a variance from one or more of the provisions of this ordinance. Applications for a permit of variance shall supply information including, but not limited to:
- a. The nature and location of the noise source for which such application is made;
 - b. The reason for which the permit of variance is requested, including the hardship that will result to the applicant, his/her client, or the public if the permit of variance is not granted;
 - c. The level of noise that will occur during the period of the variance;
 - d. The section or sections of this ordinance for which the permit of variance shall apply;
 - e. A description of interim noise control measures to be taken for the applicant to minimize noise and the impacts occurring therefrom; and
 - f. A specific schedule of the noise control measures that shall be taken to bring the source into compliance with this ordinance within a reasonable time.
 - 9.1.1. Failure to supply the information required by the NCA shall be cause for rejection of the application.
 - 9.1.2. A copy of the permit of variance must be kept on file by the municipal clerk for public inspection.
- 9.2. The NCA may charge the applicant a fee of \$_____ to cover expenses resulting from the processing of the permit of variance application.
- 9.3. The NCA may, at his/her discretion, limit the duration of the permit of variance, which shall be no longer than 1 year. Any person holding a permit of variance and requesting an extension of time shall apply for a new permit of variance under the provisions of this section.
- 9.4. No variance shall be approved unless the applicant presents adequate proof that:
- a. Noise levels occurring during the period of the variance will not constitute a danger to public health; and
 - b. Compliance with the ordinance would impose an unreasonable hardship on the applicant without equal or greater benefits to the public.
- 9.5. In making the determination of granting a variance, the NCA shall consider:
- a. the character and degree of injury to, or interference with, the health and welfare or the reasonable use of property that is caused or threatened to be caused;
 - b. The social and economic value of the activity for which the variance is sought; and
 - c. The ability of the applicant to apply the best practical noise control measures.
- 9.6. The permit of variance may be revoked by the NCA if the terms of the permit of variance are violated.
- 9.7. A variance may be revoked by the NCA if there is:
- a. Violation of one or more conditions of the variance;
 - b. Material misrepresentation of fact in the variance application; or
 - c. Material change in any of the circumstances relied on by the NCA in granting the variance.

ARTICLE 10: ENFORCEMENT PROCEDURES

- 10.1. Violation of any provision of this ordinance shall be cause for a summons to be issued by the NCO according to procedures set forth in (*Administrative Code reference*).
- 10.2. In lieu of issuing a summons as provided in Section 10.1, the NCO may issue an order requiring abatement of any sound source alleged to be in violation of this ordinance within a reasonable time period and according to guidelines that the NCO may prescribe.
- 10.3. Any person who violates any provision of this ordinance shall be subject to a fine for each offense of not more than \$_____.
- 10.3.1. If the violation is of a continuing nature, each day during which it occurs shall constitute an additional, separate, and distinct offense.

10.4. No provision of this ordinance shall be construed to impair any common law or statutory cause of action, or legal remedy therefrom, of any person for injury or damage arising from any violation of this ordinance or from other law.

ARTICLE 11: SEVERABILITY

11.1. If any provision of this ordinance is held to be unconstitutional, preempted by federal law, or otherwise invalid by any court of competent jurisdiction, the remaining provisions of the ordinance shall not be invalidated.

ARTICLE 12: EFFECTIVE DATE

12.1. This ordinance shall take effect on _____.

Sources

Adapted from the following references:

Anon. 1977. *Model Noise Control Ordinance for Stationary Sources*. Trenton, NJ: New Jersey State Department of Environmental Protection and Energy.

Anon. 1977. *Model Community Noise Control Ordinance*. Berkeley, CA: California Department of Health Services Office of Noise Control.