

Chapter 15.1  
**NOISE CONTROL**

- Sec. 15.1-1. Purpose and intent.
- Sec. 15.1-2. Administration and enforcement.
- Sec. 15.1-3. Applicability.
- Sec. 15.1-4. Definitions.
- Sec. 15.1-5. Prohibited noise.
- Sec. 15.1-6. Prohibited acts enumerated.
- Sec. 15.1-7. Exempt sounds.
- Sec. 15.1-8. Complaints of noise.
- Sec. 15.1-9. Measurement of noise.
- Sec. 15.1-10. Violation and penalty.

Chapter 15.1  
**NOISE CONTROL<sup>1</sup>**

**Sec. 15.1-1 Purpose and intent.**

The board of supervisors hereby finds and declares that excessive or unwanted sound is a serious hazard to the public health, safety, welfare, and quality of life, and that the inhabitants of the county have a right to and should be free from an environment of excessive or unwanted sound. Therefore, it is the policy of the county and the purpose and intent of this Chapter to prohibit such excessive or unwanted sound as provided herein. (Ord. 9-19-01)

**Sec. 15.1-2 Administration and enforcement.**

The Sheriff is hereby designated the agent of the board of supervisors in the administration and enforcement of this Chapter. The Sheriff may be assisted in the enforcement of this Chapter by employees of the department of zoning, the department of engineering and public works, and other officers and employees of the county. (Ord. 9-19-01)

**Sec. 15.1-3 Applicability.**

This Chapter shall apply to sound generated within the county, regardless of whether the complainant or the receiving property is within or without the county. This Chapter shall be in addition to any sound or noise regulations set forth in the zoning ordinance. (Ord. 9-19-01)

**Sec. 15.1-4 Definitions.**

The following definitions shall apply to this Chapter. The definitions of any sound-related terms not defined herein shall be obtained from the American Standard Acoustical Terminology if defined therein.

(1) *Emergency operation.* The term “emergency operation” means any emergency service provided by any police, sheriff, fire or fire and rescue department, any ambulance service or any other emergency service requiring a prompt response, and any emergency repair of public facilities or public utilities.

(2) *Motorcycle.* The term “motorcycle” means any motorized vehicle, whether registered as a motor vehicle or not, designed to travel on not more than three (3) wheels in contact with the ground and any four (4)-wheeled vehicle weighing less than five hundred (500) pounds, excepting riding mowers, farm and lawn tractors.

---

<sup>1</sup> For state law as to general powers of counties, see Code of Va., § 15.2-1200.

(3) *Motor vehicle.* The term “motor vehicle” means any self-propelled device or device designed for self-propulsion, upon or by which any person or property is or may be drawn or transported upon a road, except devices moved by human power or used exclusively upon stationary wheels or tracks.

(4) *Noise.* The term “noise” means any sound which is excessive or unwanted, but does not include any sound which is exempt pursuant to section 15.1-7.

(5) *Person.* The term “person” means any natural person, association, partnership, corporation or other legal entity.

(6) *Road.* The term “road” means a public or private thoroughfare which affords access to abutting property. (Ord. 9-19-01)

#### **Sec. 15.1-5 Prohibited noise.**

It shall be unlawful for any person to create or allow to be created any unreasonably loud, disturbing, raucous or unnecessary noise. Noise of such character, when its intensity and duration is detrimental to the life or health of any person, or which unreasonably disturbs or annoys the quiet, comfort or repose of any person, is hereby prohibited. (Ord. 9-19-01)

#### **Sec. 15.1-6 Prohibited acts enumerated.**

The following acts are declared to be unreasonably loud, disturbing, raucous or unnecessary noise prohibited by section 15.1-5, but this enumeration shall not be deemed to be exclusive:

A. *Motor vehicle or motorcycle operation.* The operation, or permitting the operation, of any motor vehicle or motorcycle so as to create an unreasonably loud sound resulting from: (i) the removal, alteration or failure to properly maintain its muffler-exhaust or other noise-control equipment; (ii) jackrabbit starts, spinning tires, racing engines, or other operations; or (iii) a refrigeration unit mounted on a motor vehicle.

B. *Radios, tape players, televisions, musical instruments, sound amplification equipment, and electronic and similar devices.* The operation, or permitting the operation, of any radio, tape player, television, musical instrument, sound amplification equipment, electronic or other similar device in such a manner: (i) as to annoy or disturb the quiet, comfort or repose of any person in a dwelling, hotel or other type of residence, when such device is not operated in or on a motor vehicle; (ii) as to annoy or disturb the quiet, comfort or repose of any person across any real property boundary when such device is operated in or on a motor vehicle which is parked; or (iii) as to be audible by someone of normal hearing, from outside a motor vehicle at a distance of 100 feet or more, when such device is located within a motor vehicle which is parked or is being operated on a road.

C. *Places of public entertainment.* The operation, or permitting the operation, of any radio, television, phonograph, drum, musical instrument, sound amplifier, or similar device which produces, reproduces or amplifies sound in any place of public entertainment in such a manner as to annoy or disturb the quiet, comfort or repose of any person not within the place of public entertainment.

D. *Noise near institutions.* The creation of any excessive noise on any street adjacent to any school, institution of learning or court, while such institution is in session, or adjacent to any hospital, which unreasonably interferes with the workings of such institution or disturbs or unduly annoys patients in the hospital; provided that conspicuous signs are visible in such streets indicating that such street is a school, hospital or court street.

E. *Sound level exceeding ambient sound level by 15 decibels.* The creation of sound which causes a fifteen (15) dBA increase in the sound level above the ambient sound level, as measured in accordance with Section 15.1-9. (Ord. 9-19-01)

#### **Sec. 15.1-7 Exempt sounds.**

The following sounds shall not be prohibited by this Chapter:

A. *Emergency operations.* Sound generated in the performance of emergency operations including, but not limited to, audible signal devices which are employed as warning or alarm signals in case of fire, collision or imminent danger.

B. *Silvicultural or agricultural activities.* Sounds generated during lawfully permitted bona fide silvicultural or agricultural activities including, but not limited to, logging activities and sounds caused by livestock.

C. *Construction, demolition and/or maintenance activities.* Sounds generated from construction, demolition and/or maintenance activities between 6:00 a.m. and 11:00 p.m.

D. *Transient sounds from transportation.* Transient sounds generated by transportation including, but not limited to, public and private airports (except as otherwise regulated), aircraft, railroads and other means of public transit.

E. *School and other athletic contests or practices, and other school activities.* Sounds generated from school and other athletic contests or practices, and other school activities, but only if conditions are imposed which regulate the generation of sound including, but not limited to, conditions regulating the hours of the activity and the amplification of sound.

F. *Parades, fireworks and similar officially sanctioned events.* Sounds generated from parades, fireworks or other similar events which are officially sanctioned, if required. This exemption shall not apply to private fireworks displays.

G. *Yard maintenance activities.* Sounds generated from routine yard maintenance activities including, but not limited to, mowing, trimming, clipping, leaf blowing and snow blowing.

H. *Public facilities.* Sounds generated from the operation of a public facility or public use.

I. *Warning devices.* Sounds generated by a horn or warning device of a vehicle when used as a warning device, including back-up alarms for trucks and other equipment.

J. *Church bells or chimes.* Sounds generated by church bells or chimes.

K. *Firearms.* Sounds generated from the lawful discharge of a firearm.

L. *Animals.* Sounds generated from animals including, but not limited to, barking dogs.

M. *Protected expression.* Any other lawful activity which constitutes protected expression pursuant to the First Amendment of the United States Constitution, but not amplified expression. (Ord. 9-19-01)

#### **Sec. 15.1-8 Complaints of noise.**

No person shall be charged with a violation of the provisions of section 15.1-104 unless the complainant appears before a magistrate and requests a summons to be issued. However, when a violation is committed in the presence of the Sheriff, any of his deputies or any other police officer, he shall have the authority to initiate all necessary proceedings. (Ord. 9-19-01)

#### **Sec. 15.1-9 Measurement of noise.**

##### **A. Definitions**

The following definitions shall apply to this Chapter. The definitions of any sound-related term not defined herein shall be obtained from the American Standard Terminology if defined therein.

*“A” weighted sound level.* The term “‘A’ weighted sound level” means the sound pressure level in decibels as measured on a sound level meter using the A-weighting network expressed as dB(A) or dBA.

*Acoustic calibrator.* The term “acoustic calibrator” means an instrument which measures the accuracy of a sound level meter.

*Ambient sound.* The term “ambient sound” means the sound derived from all sound

associated with a given environment, being usually a composite of sounds from many sources.

*Daytime.* The term “daytime” means that period of a day beginning at 7:00 a.m. and ending at 11:00 p.m., each day of the week.

*Decibel.* The term “decibel” means a unit for measuring the volume of a sound equal to twenty times the logarithm to the base ten (10) of the ratio of the pressure of the sound measured to the reference pressure, which is twenty (20) micropascals.

*Emergency operation.* The term “emergency operation” means any emergency service provided by any police, sheriff, fire or fire and rescue department, any ambulance service or any other emergency service requiring a prompt response, and any emergency repair of public facilities or public utilities.

*Equivalent sound level (Leq).* The term “equivalent sound level” means the average sound level accumulated over a given period of time. The equivalent sound level is the A-weighted sound level corresponding to a steady state sound level containing the same total sound energy as the time varying signal over a given period of time, determined using a sound level meter as set forth in the American National Standards for Sound Level Meters.

*Impulse sound.* The term “impulse sound” means any sound of short duration with an abrupt onset and rapid decay. This includes but is not limited to explosions, drum beats, drop forge impacts, discharge of firearms and one object striking another.

*Nighttime.* The term “nighttime” means that period of a day beginning at 11:00 p.m. and ending at 7:00 a.m., each day of the week.

*Noise.* The term “noise” means any sound which violates the sound level standards of this Chapter, but does not include any sound which is exempt pursuant to section 15.1-7.

*Person.* The term “person” means any natural person, association, partnership, corporation or other legal entity.

*Property line.* The term “property line” means an imaginary line along the ground surface which separates the real property owned by one person from another.

*Public facility.* The term “public facility” means a structure or use which may be publicly or privately owned or operated and which is generally open to the public, and includes but is not limited to schools, libraries, parks, hospitals and uses of a similar character.

*Receiving zone.* The term “receiving zone” means the zoning classification of the property receiving the noise, as shown on the official zoning maps. For property which is located

within another jurisdiction, the zoning administrator shall determine the comparable zoning category, and be guided in making the determination by the actual use of the property. The receiving zones shall include property with the zoning classifications set forth below:

- a. *Commercial receiving zone.* A commercial receiving zone is property zoned business (B-1), convenience business (BC), the commercial areas of a planned unit development (R-3), and any other commercial zoning district.
- b. *Industrial receiving zone.* An industrial receiving zone is property zoned light industrial (I-1), highway industrial (I-2), the industrial areas of a planned unit development (R-3), and any other industrial zoning district.
- c. *Public space or institutional receiving zone.* A public space or institutional receiving zone is property determined by the zoning administrator to be a public facility or an institution.
- d. *Agricultural and residential receiving zone.* The rural areas and residential receiving zone is that property zoned agricultural (A-1), residential (R-1, R-2, R-3 and R-4) and any other agricultural or residential zoning district.

*Sound level meter.* The term “sound level meter” means an instrument used for making sound level measurements which meets the requirements of the American National Standards Institute Type II rating.

*Source sound level.* The term “source sound level” means the equivalent sound level of the source being measured.

*Total sound level.* The term “total sound level” means the equivalent sound level of the source being measured and ambient sound before correction to determine the source sound level.

## B. Procedure for measuring sound

Each sound meter reading shall be conducted as provided herein:

- A. *Instrument of measurement.* Each sound measurement shall be taken only from a sound level meter.
- B. *Calibration of sound level meter.* An acoustic calibrator authorized by the manufacturer of the sound level meter shall properly calibrate the sound level meter used for each sound measurement in accordance with procedures specified by the manufacturer. After the initial calibration, the sound level meter shall be calibrated in accordance with procedures, and at regular intervals, as specified by the manufacturer.

- C. *Weather conditions.* A windscreen shall be used on the sound level meter when sound measurements are being taken. No outdoor sound measurements shall be taken during rain or during weather conditions in which wind sound is distinguishable from, and is louder to the ear than, the sound source being tested.
- D. *Scale.* Each sound measurement shall be expressed in units of the sound level (dBA), in accordance with American National Standards Institute specifications for sound level meters. Each measurement shall be made using the A-weighted scale with fast response, following the manufacturer's instructions and measuring the equivalent sound level. Impulse sounds shall be measured as the maximum reading and not the equivalent sound level.
- E. *Place of sound measurement.* Each sound measurement shall be taken no closer to the sound source than the property lines of the receiving zone properties or the property line along which a street fronts. If the property line of a receiving zone property is not readily determinable, the sound measurement shall be taken from any point inside the nearest receiving zone property, or within an occupied structure located on receiving zone property. If the property line abutting a street is not readily determinable, the sound measurement shall be taken from the edge of the pavement which is closest to the source of the sound. Each sound measurement taken of a sound source within a multifamily structure, such as an apartment building, townhouse development and the like, may be made: (i) within the interior of another residential unit in the same structure or the same development; or (ii) from common areas.
- F. *Orientation of microphone.* To the extent that it is practical to do so, the microphone of the sound level meter shall be positioned four (4) to five (5) feet above the ground or floor. The orientation recommended by the manufacturer of the sound level meter shall supersede the foregoing orientation if the manufacturer's recommendation conflicts therewith.
- G. *Duration of measurement.* Each sound measurement shall be taken over a period of five (5) continuous minutes, unless the sound being measured is an impulse sound. If the sound being measured is an impulse sound, each sound measurement shall be taken during the "impulse" or emission of that sound. The zoning administrator shall determine whether a sound is an impulse sound for purposes of determining the duration of the sound measurement.
- H. *Ambient sound measurement.* The ambient sound shall be measured for each sound measurement as follows:
1. The ambient sound level shall be averaged over a period of time comparable to that for the measurement of the particular sound source being measured.

2. In order to obtain the ambient sound level, the sound source being measured shall be eliminated by the source ceasing its sound-producing activity and the ambient sound level shall be obtained from the same location as that for measuring the source sound level. If the sound from the sound source cannot be eliminated, the ambient sound level shall be measured from an alternative location whose ambient sound level is not affected by the sound source in accordance with the following procedure:

- a. The alternative location should be as close as feasible as that for measuring the source sound level, but located so that the sound from the source has as little effect as possible on the ambient sound level measurement. Even if the source sound is audible or is sufficient to raise the sound level above that which would be measured were it inaudible at the alternative location, the reading is sufficient for the purpose of this procedure.
- b. The alternative location chosen must be such that structures in the vicinity are similar in size and distribution, and the local topography is similar in character to the location for the source sound level measurement.
- c. Traffic conditions at the time the ambient sound level is measured must be similar to those at the location for the sound source measurement.

I. *Determining source sound level.* Except for new equipment for which the owner provides manufacturer’s specifications related to sound levels accepted by the zoning administrator, the sound level from a sound source shall be determined by correcting the total sound level for ambient sound in accordance with the following procedure:

- 1. Subtract the maximum measured ambient sound level from the minimum measured total sound level.
- 2. In Row A below, find the sound level difference determined under paragraph (1) and its corresponding correction factor in Row B.

<b>Row A Sound Level Difference (Decibels)</b>	0.5	1	2	3	4	5	6	7	8	9	10
<b>Row B Correction Factor (Decibels)</b>	9.6	7	4	3	1.8	1.6	1.2	1.0	0.75	0.6	0.5

3. Subtract the value obtained from Row B under paragraph (2) from the minimum measured total sound level to determine the source sound level.
4. If the difference between the total sound level and the ambient sound level is greater than 10 dBA, no correction is necessary to determine the source sound level.

C. Maximum sound levels

Except as otherwise expressly provided herein, maximum noise levels from any source shall be as set forth below:

Receiving Zone	Time Period	Noise Level (dBA)
Agricultural and Residential	Daytime	60
	Nighttime	55
Public Space or Institutional	Daytime	60
	Nighttime	55
Commercial	Daytime	65
	Nighttime	65
Industrial	Daytime	70
	Nighttime	70

(Ord. 9-19-01)

**Sec. 15.1-10 Violation and penalty.**

Any person who violates any provision of this Chapter and/or creates a noise disturbance, shall be deemed to be guilty of a class 1 misdemeanor. The person operating or controlling a sound source shall be guilty of any violation caused by that source. If the sound source cannot be determined, any owner, tenant or resident physically present on the property where the violation is occurring shall be rebuttably presumed to be guilty of the violation. (Ord. 9-19-01)