

Chapter 14 – NOISE [DRAFT]

Sec. 14-1. - Declaration of policy

It is hereby declared to be the public policy of Prince William County, through the authority granted by the Commonwealth of Virginia; Code of Virginia, § , § 15.2-900 and § 15.2-1200, to protect its citizens against excessive noise which is detrimental to life, health and enjoyment of property and that it is also the policy of the County to prevent such noise to the extent such action is consistent with Federal and State laws. In order to promote the public health, safety, welfare and the peace and quiet of the inhabitants of the county, the following measurements and standards relating to noise are hereby adopted.

Sec. 14-2. – Definitions

For the purposes of this chapter, the following words and phrases shall have the meanings respectively ascribed to them by this section:

- A. Agricultural operation means any operation devoted to the production of crops, or animals, or fowl including the production of fruits and vegetables of all kinds; meat, dairy, and poultry products; nuts, tobacco, nursery, and floral products; and the production and harvest of products from silviculture activity.
- B. **Ambient sound** shall mean encompassing and/or background composite sound at a given place, exclusive of a single activity or source subject to this chapter
- C. ANSI means the American National Standards Institute, Inc., New York, New York.
- D. **ASA** means the Acoustical Society of America
- E. **Audible** means the sound that can be heard by the human ear, with or without a medically approved hearing aid or device.
- F. **Board** shall mean the Prince William County Board of Supervisors
- G. Chief means the chief of police of Prince William County or his authorized agents.
- H. **Commercial motor vehicle** shall mean, except for those vehicles specifically excluded in this definition, every motor vehicle, vehicle or combination of vehicles used to transport passengers or property which either: (i) has a gross vehicle weight or a gross vehicle weight rating of 26,001 or more pounds, whichever is greater; (ii) has a gross combination weight or a gross combination weight rating of 26,001 or more pounds, whichever is greater, inclusive of a towed vehicle with a gross vehicle weight rating of more than 10,000 pounds; (iii) is designed to transport 16 or more passengers including the driver; or (iv) is of any size and is used in the transportation of hazardous materials as defined in this section. Every such motor vehicle or combination of vehicles shall be considered a commercial motor vehicle whether or not it is used in a commercial or profit-making activity.

The following are excluded from the definition of commercial motor vehicle:

1. Any vehicle when used by an individual solely for his own personal purposes, such as personal recreational activities;
2. Any vehicle that (i) is controlled and operated by a farmer, whether or not it is owned by the farmer, and that is used exclusively for farm use, as provided in Code of Virginia §§ 46.2-649.3 and 46.2-698; (ii) is used to transport either agricultural products, farm machinery, or farm supplies to or from a farm; (iii) is not used in the operation of a common or contract motor carrier; and (iv) is used within 150 miles of the farmer's farm;
3. Any vehicle operated for military purposes by (i) active-duty military personnel; (ii) members of the military reserves; (iii) members of the national guard on active duty, including personnel on full-time national guard duty, personnel on part-time national guard training, and national guard military technicians (civilians who are required to wear military uniforms), but not U.S. Reserve technicians; and (iv) active duty U.S. Coast Guard personnel; or

4. Emergency equipment operated by a member of a firefighting, rescue, or emergency entity in the performance of his official duties.

I. **Continuous Sound** shall mean a sound that is consistently observable and uninterrupted during the period of observation.

J. Daytime means the local time of day between the hours of 7:00 a.m. and 9:00 p.m. weekdays and from 7:00 a.m. to 9:00 p.m. on Saturdays, Sundays and legal holidays observed by county government unless otherwise specified.

K. Decibel means a unit that describes the sound pressure level or intensity of sound. The sound pressure level in decibels is 20 times the logarithm to the base ten of the ratio of the pressure of the sound in microbars to a reference pressure of 0.0002 microbar; abbreviated dB.

L. **Discernible** means that the sound is sufficiently distinct so as to clearly identify its source.

M. **Device** shall mean any mechanism which is intended to, or which actually produces sound when operated or handled.

N. Director means the Director of the Department of Public Works or his authorized agent.

O. **Equivalent Continuous Sound Level (Leq)** shall mean the sound level in decibels, having the same total sound energy as the fluctuating level measured over the period of measurement, calculated as ten times the logarithm to the base ten of the ration of time-mean-square frequency-weighted sound pressure signal, to the square of the reference value for sound pressure.

P. **IEC** means the International Electrotechnical Commission

Q. **Impulse sound** shall mean a single or multiple sound event characterized by a rapid rise to a maximum sound pressure of high intensity, followed by a somewhat slower decrease in sound pressure. The duration of an impulse sound event, which includes a combination of rise time, peak amplitude and decay, shall be no more than one second. **Impulse sound** shall be measured using maximum sound level (L_{max}) and the slow setting of a sound level meter. Impulse sound may include, but is not limited to, sound from pile drivers or blasting.

R. **Instruments** refers to any musical instrument, radio, phonograph, compact disc player, MP3 player, cassette tape player, amplifier, or any other machine or device for producing, reproducing, broadcasting or the amplification of sound.

S. **Maximum sound level (L_{max})** shall mean the greatest frequency-weighted and exponential-time-weighted sound level within a stated time interval. during a measurement period or a noise event, as measured using a slow sound level response or time-constant

T. **Median sound level** shall mean the sound level, whether A-weighted, C-weighted, or in frequency bands, which is exceeded 50 percent of the time, expressed as L_{50} .

U. Nighttime means those times excluded from the definition of daytime.

V. **Noise** shall mean the intensity, frequency, duration or character of sounds from a single source or multiple sources that may degrade the public health, safety or welfare.

W. Noise disturbance means any sound which:

1. Endangers or injures the safety or health of humans; or
2. Endangers or injures personal or real property; or
3. Exceeds the applicable maximum permissible sound levels as they appear in the tables in [section 14-4](#).

X. **Octave band sound pressure level** shall mean the sound pressure level for the sound being measured within the specified octave band.

Y. **Weighted Sound Pressure Level (A)** shall mean frequency-weighted sound levels, measured over the 'A' frequency range, specified in units of **dB(A)** or **dBA** and as specified in the current version of ANSI/ASA Standard S1.4/IEC Standard 61672-1.

Z. **Weighted Sound Pressure Level (C)** shall mean frequency-weighted sound levels, measured over the 'C' frequency range, specified in units of **dB(C)** or **DBC** and as specified in the current version of ANSI/ASA Standard S1.4/IEC Standard 61672-1.

AA. Zoning district classification is the scheme of land use classification contained in the Prince William County Zoning Ordinance.

Sec. 14-3. – Excessive Sound in Residential Areas - NEW SECTION

14-3.1 General Provisions

The making, creation or maintenance of certain audible and discernable sounds are hazardous to the public health, welfare, peace and safety, as well as the quality of life of the citizens of Prince William County. It is the policy of the Board of Supervisors to prevent such sounds, while appropriately preserving each citizen's First Amendment rights, and to ensure the people of the County are provided with an environment free from the type of sound that may jeopardize the public health, welfare, peace and safety, or degrade the quality of life.

A. General Prohibition. (Formerly Sec. 14-5)

Except as otherwise provided in this section, the sounds generated by the following acts, among others, are declared to be plainly audible noise in violation of this section, and are specifically prohibited:

- (1) Sounding a horn or other signaling device on any motor vehicle except as an emergency or danger warning signal.
 - a. Operating or causing to be operated a public or private motor vehicle or motorcycle on a public right-of-way at any time in such a manner that the sound level emitted by the motor vehicle or motorcycle, when measured at a distance of 50 feet or more, exceeds the level set forth in the following table:

Table 14-3.1

Vehicle Class	Sound level in dBA	
	Speed limit 35 MPH or less	Speed limit over 35 MPH
All motor vehicles of GVWR or GCWR of 6,000 lbs. or more	86	90
Any motorcycle	82	86
Any other motor vehicle or any combination of vehicles towed by any motor vehicle	76	82

- b. This section shall not apply to any motor carrier vehicle engaged in interstate commerce.

- (2) The spinning of tires, racing of engines or other noise, or other similar acts in a motor vehicle or motorcycle, as well as the emission of noise created by the absence of a muffler and/or exhaust system conforming to the provisions of Virginia Code §§ 46.2-1047 and 46.2-1049 on a motor vehicle or motorcycle.
- (3) The sounding of any horn or signaling device/alarm on any motor vehicle, motorcycle, bicycle, or other vehicle on any street or public place of the county, continuously or intermittently for more than twenty consecutive seconds, except as a danger warning or as permitted by state law. If such signaling device/alarm sounds continuously for 15 minutes after the arrival of a law enforcement officer and the owner cannot be located, such officer may arrange for the vehicle to be towed.
- (4) Operating, loading or unloading commercial motor vehicles, including but not limited to trucks, trailers, or the opening and destruction of bales, boxes, crates and containers in the outdoors in zones other than industrial within 100 yards of a lawfully occupied dwelling between the hours of 9:00 p.m. and 7:00 a.m.
- (5) Operating or causing to be operated between the hours of 9:00 p.m. and 7:00 a.m. on weekdays and between the hours of 9:00 p.m. and 7:00 a.m. on Saturdays, Sundays and legal holidays observed by county government any equipment used in construction, repair, alteration or demolition work on buildings, structures, alleys or appurtenances thereto in the outdoors in any residential district within 100 yards of a lawfully occupied dwelling. This section shall not apply to construction of public projects, the repair or maintenance work performed on such projects or work performed by private or public utility companies for the repair of facilities or restoration of services.
- (6) Using, operating or causing to be operated mechanical loud speakers or other sound amplification devices on trucks or other moving vehicles or in commercial establishments for the purpose of commercial advertising or attracting the attention of the public during the nighttime. The use of such at all other times shall be subject to the following conditions:
 - a. Sound shall not be issued or devices shall not be used within 100 yards of hospitals, schools, churches or courthouses.
 - b. Only human speech and music shall be amplified.
 - c. Any amplified human speech and music shall not be obscene.
- (7) Operating or permitting to be operated any powered model remote-control or unmanned vehicles or aircraft in the outdoors during the nighttime. Any person desiring to use county parks or facilities to operate such aircraft at any time must first obtain permission from the park authority. **Any Unmanned Aerial Vehicles (UAVs aka Drones) shall be flown in accordance with applicable federal and state laws.**
- (8) The playing of radio, phonographs, television, tape or disc players, musical instruments including drums, sound amplifiers or similar devices which produce, reproduce or amplify sound in such a manner as to emit sound audible to **any person other than the player(s) or operator(s) of the instrument, machine or device and those who are voluntarily listening to the sound in such a manner as to emit sound audible and discernible** at a distance of 50 feet outside of a building or audible and discernible through partitions common to two or more residences within a building.
- (9) **The using, operating, or permitting to be played, used or operated, any instrument, machine or device for the producing or reproducing of sound in such a manner where the sound is plainly audible and discernible to any person other than the player(s) or operator(s) of the instrument, machine or device and those who are voluntarily listening to the sound and is plainly audible and discernible at a distance of 100 feet or more from the source of the sound; provided, however, that the provisions of this subsection shall not apply to any event sponsored by the county, state or federal government. The operation of any such instrument, machine or device between the hours of 9:00 p.m. and 7:00 a.m., in such a manner as to be plainly audible at a distance of 100 feet from the source of the sound shall be prima facie evidence of a violation of this section.**
- (10) Talking, yelling, shouting, screaming, singing, or any other form of human sounds produced by any person or group of people between the hours of 9:00 p.m. and 7:00 a.m. in such a manner as to be audible and discernible across property boundaries or audible and discernible through partitions common to two or more residences within a building.

- (11) Playing, operating or permitting to be operated, any radio, tape player, compact disc player, loud speaker or other electronic device used for the amplification of sound, which emits sound within a motor vehicle being operated or parked on a public street alley, parking lot open to the public, or public park, and which emits sound audible from outside the motor vehicle at a distance of 50 feet or more. The provisions of this subsection shall not apply to motor vehicle alarms or other security devices, the emission of sound for purposes of alerting persons to the existence of an emergency, or the emission of sound in performance of emergency work.
- (12) It shall be unlawful for any person to allow any animal or bird except farm animals in agricultural districts to create noise such that it is audible and discernible at least once a minute for ten consecutive minutes (formerly 14-5.1 Noise from animals)
- inside the confines of the dwelling unit, house or apartment of another;
 - at 50 or more feet from the animal or bird.
 - the animal or bird is not alerting to the presence of the person issuing the complaint.

B. Exemptions. (Proposed due to proximity of these to existing/proposed residential neighborhoods)

Sounds produced by the following activities are not prohibited by this section:

- (1) Agricultural operations.
- (2) The operation of power lawn or landscaping equipment for golf course maintenance between the hours of 7:00 a.m. and 9:00 p.m.
- (3) Emergency operations including but not limited to, audible signal devices which are employed as warning or alarm signals (other than vehicle alarms) in the event of an emergency, including sirens, loud speakers, or sound produced by power generators during power outages and other emergency situations.
- (4) Emergency work, including the sound of emergency communications radios in public safety vehicles.
- (5) Parades, fireworks or other similar events which are approved by appropriate County authorities, unless other regulations or terms of a zoning permit apply.
- (6) Lawful activities which constitute protected expression pursuant to the First Amendment to the United States Constitution.
- (7) Operation of a public facility or a public use including, but not limited to, any sound which would not be an exempt sound if it was produced by the operation of a non-public facility or non-public use.
- (8) School or organized youth athletic or contests or practices, and other school activities.
- (9) Warning devices such as back-up alarms on trucks and other equipment, when such devices employ broadband technology (white noise or range of frequency versus single, narrow tone).
- (10) Activities sponsored by the County.
- (11) Any activity for which the regulation of noise has been preempted by state or federal law.
- (12) Aircraft, Trains and public transit.

C. 3.2 Violations and Enforcement

A. Investigations and Enforcement

- (1) The Prince William County [Police Department](#) investigates complaints of noise from animals, people, motor vehicles and/or instruments (which includes any device which produces or amplifies sound, such as a radio and subject to section 14-3.1). The police may also respond to events that have become too loud and are occurring outside of the event's permitted timeframe or location. The Police Department can also respond to complaints regarding noise occurring at a prohibited time of day, the Police can respond to a noise complaint while the noise is occurring, such as at night, early morning, and the weekends.

- (2) If a noise violation is found, the responsible party will be notified of the violation and directed to comply. Failure to comply could result in criminal prosecution.
- (3) The County Police Chief or designee shall have the authority to revoke, as set out in this section, any event or gathering permit, issued through a written revocation, which shall be effective immediately for the reasons below:
 - (i) If Permit holder has misrepresented a material fact in applying for a permit;
 - (ii) If the permit holder is convicted twice in any calendar year of violation of this Chapter (Noise);
 - (iii) Upon certification and documentation by the County the premises covered by the permit are not in compliance with applicable regulations or with the permit restrictions as approved by the County

B. Violations (formerly Sec. 14-2)

- (1) Any person who violates any provision of this section as described above, known in totality as Prince William County Residential Nuisance Noise, shall be found guilty of a Class 2 misdemeanor.
- (2) The person operating or controlling the sound generation or source shall be guilty of any violation caused by that generation or source. If such person cannot be identified, there shall be a presumption that any owner, tenant, resident, manager, or authorized user of the premises physically present on the property where the violation is occurring is operating or controlling the sound generation or source.
- (3) Nothing herein shall serve to prevent a citizen aggrieved by any violation of this Chapter from applying to a Magistrate for the issuance of a warrant for any such violation.??

Sec. 14-4. Industrial, Construction and Commercial Noise - new name

14-4.1 - Maximum permissible sound levels generally.

A. Location, Type of Noise and Measurement

Except as otherwise provided, any noise which emanates from any operation, activity or source and which exceeds the maximum permissible sound pressure levels established in Tables 14.4.1 and 14.4.2 below is hereby prohibited. The location of the measurement shall determine the applicable zoning district classification noise limit. At property boundaries between dissimilar zoning district classifications, the limits of the more restrictive classification shall apply.

Table 14-4.1 MAXIMUM PERMISSIBLE IMPULSE LEVELS (Lmax)

Zoning District Classification	Maximum dBA Daytime	Maximum dBA Nighttime	Maximum dBC Daytime	Maximum dBC Nighttime
Residential	77	62	90	75

Table 14-4.2 MAXIMUM PERMISSIBLE EQUIVALENT CONTINUOUS SOUND PRESSURE LEVELS (Leq)

Zoning District Classification	Maximum dBA Daytime	Maximum dBA Nighttime	Maximum dBC Daytime	Maximum dBC Nighttime
Residential	52	47	65	60
Mixed Use	62	57	70	65
Commercial	65	60	75	75
Industrial	79	72	80	80

Table 14-4.3 MAXIMUM PERMISSIBLE MEDIAN SOUND PRESSURE LEVELS (L₅₀) FOR RESIDENTIAL ZONING DISTRICTS

OCTAVE BAND (Hz)	DAYTIME	NIGHTTIME
31.5	65	60
63	60	55
125	55	50
250	50	45
500	45	40
1,000	41	36
2,000	38	33
4,000	36	31
8,000	35	30

B. Additional Restrictions

- (1) Any person or entity causing the equivalent continuous sound level to increase in excess of 5 dBA above ambient levels when measured at the exterior wall of a residential dwelling shall be in violation of this chapter.

C. Exclusions

~~1. Heating and cooling systems, including but not limited to air conditioners and heat pumps, serving residential dwelling(s) shall not be subject to the night levels enumerated above.~~

- (1) Any person, with lawfully obtained permits, who between the hours of 7:00 a.m. and 9:00 p.m. weekdays and between the hours of 7:00 a.m. and 9:00 p.m. on Saturdays, Sundays and legal holidays observed by county government operates or causes to be operated any equipment used in construction, repair, alteration or demolition work on buildings, structures, alleys or appurtenances thereto in the outdoors in any residential district within 100 yards of a lawfully occupied dwelling shall be subject to the maximum permissible levels for Industrial zoning district classifications identified in Table 14-4.1 above.
- (2) Persons performing construction of public projects, repair or maintenance work for such projects or persons performing work for private or public utilities for the repair of facilities or restoration of services shall not be subject to the levels enumerated above, unless otherwise restricted by Municipal or other permitting requirements.

14-4.2 Measurements (formerly 14.7)

- (1) Any person authorized to enforce this ordinance may use equipment deemed proper pursuant to Code of Virginia, § 2.2-1112(C), as amended from time-to-time, to determine the decibel level of any sound, including noise. The results of such determinations shall be accepted as prima facie evidence of the decibel level of the sound in any court or legal proceeding where the decibel level of the sound is at issue.
- (2) The measurement of sound or noise shall be made with Class 1 sound level meters as defined in section 14-2 above. The instruments shall be maintained in calibration and good working order. A calibration shall be made of the system at the time of any noise measurement, and calibration results recorded.
- (3) Measurements recorded shall be taken so as to provide a proper representation of the noise source. The microphone during measurement shall be positioned so as not to create any unnatural enhancement or diminution of the measured noise, at an elevation of 60-inches above ground level (+/- 3 inches). A windscreen for the microphone shall be used when required.
 - a. Windspeed shall be recorded. If sustained windspeed is excessive, enforcement measurements at residential locations shall be postponed to a time of lower windspeed. For the purposes of this Ordinance, excessive windspeed shall be defined as greater than 6 miles per hour if using a 90-millimeter diameter windscreen (or equivalent, or greater than 12 miles per hour if using a 200-millimeter diameter windscreen (or equivalent).
 - b. No enforcement observations shall be collected during observable precipitation, or when the ground is wet or covered by snow and/or ice.
 - c. If significant insect and/or amphibian noise is observed, the sound level limits for the 2,000 Hz, 4,000 Hz and 8,000 Hz frequency bands noted in Table 14-4.2 may be disregarded.
- (4) Ongoing operations or activities shall be measured over a minimum 10-minute duration.
 - a. This requirement shall not prohibit county staff or law enforcement from collecting shorter-duration observations subject to nuisance complaints regarding short-term activities or operations. Such observations shall consist of a minimum of three instantaneous readings, or a minimum 60-second duration reading. The geometric mean of these readings will be used as the average sound level and compared to the levels set forth in section 14-4 above.
 - b. If the background noise is equal to the levels set forth in section 14-4 above, three dB shall be subtracted out of the average sound level.
 - c. Sound sources observed to have L_{max} exceeding L_{eq} by 25 dB during daytime hours, or by 15 dB during night time hours, shall constitute an Impulse Sound. Impulse Sound Sources shall have 5 dB added to the measured L_{eq} for purposes of comparison to Table 14-4.1.

- (5) The slow meter response of the sound level meter (one-second response time mode) shall be used to determine that the average amplitude has not exceeded the limiting dBA, dBC, or the noise spectra set forth in Section 14-4 above.
- (6) Unless otherwise specified, the measurement shall be made at the property boundary on which such noise is generated, or at any representative exterior point within the receiving property affected by the noise, in accordance with § 14-5.1.C.

14-4.3 Enforcement, Fines and Legal Proceedings

- A. Any person or entity violating this section, known in its totality as the Prince William County Industrial and Commercial Noise Ordinance, shall be found guilty of a Class 1 misdemeanor.
- B. The person operating or controlling the sound generation or source shall be guilty of any violation caused by that generation or source. If such person cannot be identified, there shall be a rebuttable presumption that any owner, tenant, resident, manager, or authorized user of the premises physically present on the property where the violation is occurring is operating or controlling the sound generation or source.
- C. Nothing herein shall serve to prevent a citizen aggrieved by any violation of this Chapter from applying to a Magistrate for the issuance of a warrant for any such violation.

Sec. 14-6. - Trash or refuse.

A. Noise relating to the collection of trash or refuse is regulated under section 22-42 of this Code. (Ord.

No. 89-143, 10-24-89)

Sec. 14-7. - Sport shooting ranges.

- A. The provisions of this chapter shall not subject a sport shooting range to noise control standards more stringent than those in effect at the time the construction or operation of the range initially was approved, or at the time any application was submitted for the construction or operation of the range. The operation or use of a sport shooting range shall not be enjoined on the basis of noise, nor shall any person be subject to action for nuisance or criminal prosecution in any manner relating to noise resulting from the operation of the range, if the range is in compliance with all ordinances relating to noise in effect at the time construction or operation of the range was approved, or at the time any application was submitted for the construction or operation of the range.
- B. For purposes of this section, "sport shooting range" means an area or structure designed for the use of rifles, shotguns, pistols, silhouettes, skeet, trap, black powder, or any other similar sport shooting.

(Ord. No. 90-77, 6-5-90; Ord. No. 05-43, 6-28-05)

State Law reference— Similar provisions, Code of Virginia, § 15.2-917

Sec. 14-8. - Exemptions for Construction Activities

A. Exemptions from the provisions of this chapter may be granted in accordance with the requirements below:

- (1) Any person responsible for any noise from the operating of any equipment used in construction, repair, alteration or demolition work on building structures, alleys or appurtenances thereto shall apply to the director for an exemption or partial exemption from the provisions of this chapter. All other requests for exemptions shall be directed to the Prince William County Director of Public Works. The Director may grant such an exemption or a partial exemption if they find that:
 - a. The noise does not endanger the public health, safety or welfare; after appropriate notification of surrounding communities and
 - b. Compliance with the provisions of this chapter from which an exemption is sought would cause a serious hardship without producing equal or greater benefit to the public.
- (2) In determining whether to grant such exemption **the Director** shall consider the following:
 - a. The time of day the noise will occur;
 - b. The duration of the noise;
 - c. The loudness of the noise in relation to the maximum permissible sound levels set forth in section 14- 4, Table 14.4.1 of this chapter, based upon sound source data and/or a noise impact analysis provided by the responsible party;
 - d. Whether the noise is intermittent or continuous; and
 - e. Such other matters as are reasonably related to the impact of the noise on the health, safety and welfare of the community and the degree of hardship which may result from the enforcement of the provisions of this chapter.
- (3) Exemptions or partial exemptions issued pursuant to this section shall be granted for such period not to exceed 90 days. Exemptions shall be renewable at the request of the responsible party, subject to the discretion of the Director. Any such exemption shall be reviewed if complaints are received and may be revoked if, when the foregoing standards are applied, circumstances no longer justify the exemption or partial exemption.
- (4) Exemptions under this subsection shall be subject to the maximum permissible levels for Industrial zoning district classifications identified in Table 14-4.2 above.
- (5) Any person aggrieved by a decision of the Director made pursuant to this section may obtain review of such decision by the County Executive or his authorized agent by delivering a written statement of appeal to the office of the County Executive within ten days of the date of the decision. The County Executive shall review all statements of grievances and shall, within ten days after receipt of such written statement of grievance, either affirm or set such decision aside, and make any such further determination as may be necessary to effectuate the provisions of this section. The decision of the County Executive shall be final and binding.