

ARTICLE IV. NOISE*

Sec. 12-76. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

ANSI means American National Standards Institute or its successor bodies.

A-weighted sound level means the sound pressure level in decibels as measured on a sound level meter using the A-weighting network. The level so read is designated dB(A) or dBA.

Ambient noise means the all encompassing noise associated with a given environment, being usually a composite of sounds from many sources, near and far.

Background noise level means the sound from all sources, with a single source in question removed.

Commercial area means any area of the city designated on the Official Zoning Map C-O, C-1, C-2 or CBD.

Construction means any site preparation, assembly, erection, substantial repair, alteration or similar action, for or of public or private rights-of-way, structures, utilities or similar property.

Day means the hours between 7:00 a.m. and 10:00 p.m. central standard or daylight savings time when in effect.

Decibel or dB means a unit for measuring the volume of a sound, equal to twenty (20) times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is twenty (20) micronewtons per square meter.

Demolition means any dismantling, intentional destruction, or removal of structures, utilities, public or private right-of-way surfaces, or similar property.

Emergency means any occurrence or set of circumstances involving actual or imminent physical trauma or property damage which demands immediate action.

Emergency work means any work performed for the purpose of preventing or alleviating the physical trauma or property damage threatened or caused by an emergency.

Fluctuating sound means a sound whose sound pressure level varies significantly but does not equal the ambient

environmental level more than once during the period of observation.

Frequency means the reciprocal of the primitive period of a function periodic in time. The unit is the cycle per unit time and must be specified; typically this unit will be hertz (hz), i.e., cycles per second.

Gross vehicle weight rating or GVWR means the value specified by the manufacturer as the recommended maximum loaded weight of a single motor vehicle. In cases where trailers and tractors are separable, the gross combination weight rating (GCWR), which is the value specified by the manufacturer as the recommended maximum loaded weight of the combination vehicle, shall be used.

Industrial area means any area of the city designated on the Official Zoning Map M-1 or M-2.

Light motor vehicle means any automobile, van, motorcycle, motor-driven cycle, motor scooter or light truck with a gross vehicular weight of less than eight thousand (8,000) pounds.

Motor vehicle means a vehicle which is self-propelled, including, but not limited to, cars, trucks, motorcycles, motorbuses, motorhomes, snowmobiles, truck trailers, and motor bicycles.

Muffler or sound dissipative device means a device for abating the sound of escaping gases of an internal combustion engine.

Night means the hours between 10:00 p.m. and 7:00 a.m., standard time or daylight savings time when in effect.

Noise means any sound which annoys or disturbs humans or which causes or tends to cause an adverse psychological or physiological effect on humans.

Noise disturbance means any sound which:

- (1) Endangers or injures the safety or health of humans or animals;
- (2) Annoys or disturbs a reasonable person of normal sensitivities; or
- (3) Endangers or injures personal or real property.

Public right-of-way means any street, avenue, boulevard, highway, sidewalk or alley or similar place which is owned or controlled by a government entity.

Public property means any real property or structures

thereon which are owned or controlled by a governmental entity, including, but not limited to, parks, streets and alleys.

Real property boundary means an imaginary line along the ground surface, and its vertical extension, which separates the real property owned by one person from that owned by another person.

Residential area means any area of the city designated on the Official Zoning Map AG, R-1A, R-1B, R-1C, R-2, R-3, P-I and NC.

Sound means an oscillation in pressure, particle displacement, particle velocity or other physical parameter, in a medium with internal forces that causes compression and rarefaction of that medium. The description of sound may include any characteristics of sound, including duration, intensity and frequency.

Sound level means the weighted sound pressure level obtained by the use of a sound level meter and frequency weighting network, such as A, B, or C as specified in American National Standards Institute specifications for sound level meters (ANSI S1.4 – 1971 or the latest approved revision thereof). If the frequency weighting employed is not indicated, the A-weighting shall apply.

Sound level meter means an instrument which includes a microphone, amplifier, output meter, and weighting networks used to measure sound pressure levels. (Code 1965, §22.09(2); Ord 69-07, §1, 3-27-07)

Cross reference(s) – Definitions and rules of construction generally, §1-2. Citation for violation of certain ordinances, §1-17; schedule of deposits for citation, §1-18.

State law reference(s) – Boat noises, W.S.A. §30.62; noises generally, automobiles, W.S.A. §347.38; snowmobiles, W.S.A. §350.10

Sec. 12-77. Applicability of article; administration and enforcement.

Noise is a serious hazard to the public health, welfare, safety and quality of life. A substantial body of science and technology exists by which excessive sound may be substantially abated. The people have a right to an environment free from excessive sound that may jeopardize their health, welfare, or safety, or degrade the quality of life. This article shall apply to the control of noise originating within the corporate limits of the city. It is the policy of the city to prevent noise that may jeopardize the health and welfare or safety of its citizens or degrade the quality of life. It shall be the duty of the Health Department or the Police Department to administer and enforce the provisions of this article.

Sec. 12-78. Penalty for violation of article; abatement of noise disturbance.

Any person who shall violate any provisions of this article shall be subject to penalty as provided in §1-16. In addition to forfeiture, this article may be enforced by injunction, nuisance abatement or other appropriate legal or equitable action. Noise as defined in this article, together with specific prohibited acts of noise disturbance, are hereby deemed and declared to be a public nuisance subject to nuisance abatement proceedings. (Code 1965, §22.09(9))

Sec. 12-79. Noise measurement methods.

(a) Measurement shall be made at or beyond the property line of the property on which such noise is generated or at or within the property line of the property on which such noise is perceived, as appropriate. Measurement shall be done approximately four (4) feet above the ground and at least three (3) feet from large reflecting surfaces such as building walls.

(b) Measurement of sound shall be made either with a sound level meter that meets or exceeds the ANSI requirements of the American Standard Specification for Sound Level Meters, Type I or Type II (ANSI S1.4 - 1971) or with an Octave Band Analyzer that meets or exceeds the requirements of ANSI S1.6-19600 or any subsequent nationally adopted standards superseding the above standards. In both cases, the instruments should be maintained in calibration and good working order.

(c) When a sound level meter is used, it shall be set to the A-weighting scale and in the FAST response mode. A windscreen shall be mounted on the microphone and the noise limitations shall be the A-scale levels set forth in **Tables I and II**. An octave band analyzer may be employed when there is a concentration of sound energy within a limited number of bands, but its use shall not be restricted to such situations. When an octave band analyzer is used, a standard octave band analysis shall be conducted that spans the frequency range set forth in **Tables I and II**.

Sec. 12-80. Disturbing noise generally.

No person shall make or cause to be made any loud, disturbing, fluctuating or unnecessary sounds or noises such as may tend to annoy or disturb a reasonable person. (Code 1965, §8.02(3); Ord 139-94, §1, 11-16-94)

Cross reference(s) – Citation for violation of certain ordinances, §1-17; schedule of deposits for citation, §1-18.

Sec. 12-81. Prohibited acts.

(a) No person shall operate or cause to be operated on private or public property any source of sound in such a

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manner as to create a sound level which exceeds the limits set for the zone categories in Table I, provided however, that when sound is emitted from an industrial zone into a residential zone or commercial zone, or from a commercial zone into a residential zone, the limits set forth in Table II shall apply.

(b) No person shall operate, play, or permit the operation or playing of any radio, television, phonograph, musical instrument, sound amplifier or similar device in such a manner as to create a noise disturbance.

(c) No person shall own, possess or harbor any animal or bird which frequently or for continued duration makes sound which creates a noise disturbance.

(d) No person shall operate or permit the operation of any mechanical power saw, drill, sander, grinder, lawn or garden tool, lawnmower, snow removal equipment or any similar device, necessary for the maintenance of property, in a manner which creates a noise disturbance. Such devices that are kept in good repair and, when new, would not comply with the standards set forth in this article, shall be exempt provided they are reasonably used for property maintenance. No such equipment, except snow removal equipment, shall be operated at night.

(e) No person shall sound or permit the outdoor sounding of any fire alarm, burglar alarm, civil defense alarm, siren, horn, whistle or similar emergency signaling device, except for emergency purposes or for testing. Any testing shall be performed during the day.

(f) No person shall operate any motor vehicle unless such motor vehicle is equipped with an adequate muffler in constant operation and property maintained to prevent excessive or unusual noise. The provisions of W.S.A. §347.39 are hereby adopted by reference and made a part of this section.

(g) No operator shall accelerate a motor vehicle so as to emit an unnecessary noise as a result of the friction caused between the tire and the surface on which the vehicle travels or to cause the tires to throw stones or gravel when in the process of accelerating.
(Code 1965, §8.03(3)(a); §22.09(5))

(h) It shall be unlawful for any vehicle equipped with a compression braking device (jake brakes) to use this device to contain the engine's compression, thus rapidly slowing the engine's revolutions per minute and the vehicle's speed, except in cases of extreme emergency.

(i) **Exemptions.** The following activities shall be exempt from the regulations of this section:

- (1) The daytime criteria, as set forth in Tables I and II, shall not apply to construction sites, demolition sites, public utilities, and public works projects and operations during daytime hours Monday through Saturday, inclusive; however, the noise production shall be minimized through proper equipment operations and maintenance. Stationary equipment on construction projects lasting more than ten (10) days within residential districts shall be shielded or located to prevent unnecessary noise.
- (2) Emergency short term operations which are necessary to protect the public health, safety and welfare of the citizens, including emergency utility and public works operations.
- (3) Essential operations and noises required by law relating to the public health, safety and welfare, including, but not limited to, law enforcement, firefighting and rescue and sanitation activities.
- (4) When the background noise level is above a noise limitation, a source may add no more than 2 dB to the background level.

(Code 1965, §22.09(3), (7); Ord 171-01, §1, 10-8-01)

Cross reference(s) – Citation for violation of certain ordinances, §1-17; schedule of deposits for citation, §1-18; traffic and vehicles, ch. 19

TABLE I
Maximum Permissible Sound Pressure
(Levels in Decibels re .0002 Microbars)

7:00 A.M. to 10:00 P.M.

Octave Band Center Frequency (Hz)	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>
31.5	70	80	86
63	69	79	85
125	64	73	80
250	58	65	75
500	52	59	69
1000	47	53	63
2000	42	47	58
4000	38	42	54
8000	35	40	51
A-scale levels	57 dB (A)	63 dB (A)	72 dB (A)

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Octave Band Center Frequency (Hz)	10:00 P.M. to 7:00 A.M.			8000	40	39	32
	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	A-scale levels			
31.5	69	72	81	61 dB(A)	60 dB (A)	55 dB (A)	
63	68	71	80				
125	62	66	75				
250	54	60	70				
500	48	54	64				
1000	42	49	58				
2000	36	44	53				
4000	31	40	49				
8000	29	37	46				
A-scale levels	52 dB (A)	58 dB (A)	67 dB (A)				

TABLE II

Maximum Permissible Sound Pressure
(Levels in decibels re .0002 Microbars)

7:00 A.M. to 10:00 P.M.

Octave Band Center Frequency (Hz)	Ind. Into		Commercial
	<u>Commercial</u>	<u>Residential</u>	<u>Residential</u>
31.5	80	79	75
63	79	78	74
125	74	73	69
250	69	67	64
500	63	61	58
1000	57	55	52
2000	52	50	47
4000	48	46	43
8000	45	43	40
A-scale levels	66 dB (A)	64 dB (A)	61 dB (A)

10:00 P.M. to 7:00 A.M.

Octave Band Center Frequency (Hz)	Ind. Into		Commercial
	<u>Commercial</u>	<u>Residential</u>	<u>Residential</u>
31.5	75	74	72
63	74	73	71
125	69	68	65
250	64	63	57
500	58	57	51
1000	52	51	45
2000	47	46	39
4000	43	42	34

Sec. 12-82. Light motor vehicle noise.

No person shall cause noise levels from the operation of a light motor vehicle and motorcycles in excess of the sound levels set forth in tables III and IV below.

TABLE III

Passby Vehicle Sound Limits

Weighted and sound level limits for operation on roadways specified at fifty (50) feet from the centerline of the vehicle travel lane:

Posted Speed Zone	<i>Automobiles, Vans</i>	<i>On-Highway</i>
	<i>Light Trucks GVWR</i>	<i>Motorcycles</i>
Greater than 45 mph	78 dB	82 dB
45 mph or less	72 dB	78 dB
35 mph or less, level roadways, constant speed cruise, 200 feet or more from intersection	70 dB	74 dB

TABLE IV

Stationary Vehicle Sound Limits

Weighted sound level limits for stationary vehicles. Vehicle exhaust noise tests measurements at twenty (20) inches from exhaust outlet:

Automobile, Vans, Light Trucks, GVWR 8,000 lbs.	95 dB
On-highway motorcycles	99 dB

Add 2 dB for rear and mid-engine vehicles. Tests shall be conducted at an engine test speed of 3,000 RPM or one-half the indicated engine red line. (Code 1965, §22.09(6))

Sec. 12-83. Variances.

The City of Appleton Board of Health, upon final approval by the Common Council, shall have the authority, consistent with this section, to grant variances in accordance with the following provisions.

(a) ***Special Variance Permits.***

- (1) ***General.*** A special variance permit may be issued upon request provided that the work producing such noise is necessary to promote the public health or welfare and reasonable

steps are taken to keep such noise at the lowest practical level.

- (2) **Special Community Events.** A variance may be issued for special events and similar gatherings, festivals, presentations and the like, which are limited in duration and are generally acceptable to the people of the community provided that precautions are taken to maintain the noises produced at the lowest practical level. The Health Officer, or designee, is authorized to issue a variance pursuant to this section upon receiving a complete application for an event meeting this section's criteria. Applications that are not approved shall, upon timely request of the applicant, be reviewed by the Board of Health at their next regularly scheduled meeting.
- (3) **Procedures.** Any person seeking a special variance permit pursuant to this section shall file an application with the Health Officer, to be submitted to the Board of Health, forty-five (45) days prior to commencement of the event or activity for which the variance permit is requested. The Board of Health, however, may waive the time limit when compliance therewith is impractical. The application must be made in writing and shall contain all the following pertinent information:
 - a. Dates required.
 - b. Time and place of operation.
 - c. Equipment operation involved.
 - d. Necessity for such permit.
 - e. Steps to be taken to minimize noise.
 - f. Name of responsible person who will be present at the operation site while the noise is produced.
- (4) **Issuance.** Upon final approval by the Common Council, a special variance permit shall be granted by notice to the applicant containing all necessary conditions, including a time limit on the permitted activity. The special variance permit shall not become effective until all conditions are agreed to by applicant. Noncompliance with any condition of these special variance permits shall terminate the permit and subject the person holding it to compliance with this article.

- (5) **Extension or modification.** Application or extension of time limits specified in special variance permits or for modification of other substantial conditions shall be treated like applications for initial special variances.

(b) **Conditional Variances.**

- (1) It may not be technically or economically feasible for certain commercial or industrial sources of sound to comply with the standards set forth herein. Therefore, the Board of Health may grant variances from this section if it finds that strict compliance is unreasonable because:
 - a. Conditions are beyond the control of the person requesting such variance.
 - b. Special circumstances exist which would render strict compliance impractical.
 - c. Strict compliance would result in substantial curtailment or closing down of a business, plant, operation or the like.
 - d. Control technology is unavailable or available only at a prohibitive cost.
 - e. No other alternative facility or method is available.
- (2) **Application.** Application for a variance permit under this subsection shall be made in writing to the Health Officer for submittal to the Board of Health. Such application shall specify the grounds upon which the variance permit is sought and the date by which the source of any excess noise for which the variance is sought shall be brought into compliance with this section. An application for a variance permit shall be considered timely made if filed within thirty (30) days following due notification that it is in violation of this section. The proper filing of an application within such time shall toll all penalties provided in this section for any such violation until a final decision has been issued on the merits of such application. The Board of Health, within a reasonable amount of time, shall give public notice of the receipt of an application for a variance permit.
- (3) **Permit.** Within a reasonable time following receipt of an application for a variance permit and after public notice thereof has been given, the Board shall grant such

permit to an applicant if the Board finds that immediate compliance with the noise limitations as set forth in this section would result in unnecessary hardship to the applicant. In making the determination, the Board of Health shall balance the hardship to the applicant, the community, and other persons of not granting the variance, against the adverse impact on health, safety, and welfare of persons affected, the adverse effect on property affected and any other adverse impacts of granting the variance. Any person who claims to be adversely affected by the allowance of the variance permit may file a statement with the Board of Health containing information to support the claim. The Board of Health may require the applicant to submit information not contained in the application which may be necessary for making a determination under this subsection. Within five (5) days following the determination, the Board of Health shall place on file with the City Clerk a copy of the decision which shall specify the reasons for denying or granting the variance permit.

- (4) **Conditions.** Upon final approval by the Common Council, the Health Officer shall issue a variance permit under such conditions as are necessary to protect the public health, safety, and welfare, including a schedule for achieving compliance with noise limitations. Variances exceeding two (2) years may be granted only in exceptional cases, including those for which, in the opinion of the Board of Health, control technology is unavailable or available only at a prohibitive cost. Non-compliance with any conditions imposed on the variance shall terminate the variance and subject the person holding it to those provisions of this section for which the variance permit was granted.
- (5) **Extension and Modification.** Application for extension of time limits or modification of other conditions specified in the variance permit shall be treated like applications for an initial variance, except that the Board of Health must find that the need for such extension or modification clearly outweighs any adverse impacts of granting the extension or modification.
- (6) **Appeals.** Any applicant or other person aggrieved by the decision of the Board of Health or Common Council may seek such other legal relief as may be available.

(Ord 173-08, §1, 11-25-08)

Cross reference(s) – Board of Health, §2-76, et seq.

Sec. 12-84. Sounding locomotive whistle.

No railroad company or any of its agents, servants or employees shall blow any whistle on any engine within the limits of the city, except in those cases prescribed and designated by the laws of Wisconsin. This section does not prohibit the blowing of any whistle as a signal warning in cases of peril, fire or collision or other imminent danger. (Code 1965, §8.02(3); Ord 137-92, §1, 12-16-92, Ord 84-00, §1, 10-7-00)

Sec. 12-85. Adoption of state law regarding sound-producing devices; impoundment; seizure and forfeiture.

W.S.A. §66.0411 regarding impoundment, seizure and forfeiture of sound-producing devices in violation of this article is hereby adopted by reference and made an offense punishable as a violation of this code. (Ord 89-96, §1, 9-18-96)

Sec. 12-86. Commercial and industrial construction

New or substantially modified structures on land used or zoned as commercial or industrial shall be subject to site plan review to evaluate compliance with the provisions of this code.

Sec. 12-87. Radio or other electric sound amplification device – prohibited.

No person or business may use a radio or other similar electric sound amplification device so that sound emitting from said radio or amplification device is audible under normal conditions from a distance of seventy-five (75) or more feet. (Ord 84-05, §1, 8-23-05)

Secs. 12-88 – 12-100. Reserved.