

ARTICLE III. - NOISE

Sec. 30-101. - 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 the American National Standards Institute or its successor bodies. All acoustical terminology shall be that contained in ANSI S1.1 "Acoustical Terminology."

ARI means the Air Conditioning and Refrigeration Institute or its successor bodies.

ASHRAE means the American Society of Heating, Refrigerating and Air Conditioning Engineers or its successor bodies.

ASTM means the American Society for Testing Materials or its successor bodies.

Director means the environmental protection director or his duly authorized representative, or such person as may be appointed by the city manager.

Decibel means a logarithmic unit of measurement which indicates the ratio between two quantities (commonly electrical or sound energy levels, or pressure levels). (See sound pressure level)

Discrete tone means a sound wave whose instantaneous sound pressure varies essentially as a sinusoidal function of time.

Essential services means the erection, construction, alteration or maintenance by public utilities, municipal departments or commissions or any governmental agencies, of street facilities, or any underground or overhead gas, electrical, steam or water transmission or distribution system, collection, communication, supply or disposal system, including poles, wires, mains, drains, sewers, pipes, conduits, cables, fire alarm boxes, police call boxes, traffic signals, hydrants, towers, electric substations, telephone exchange buildings, gas regulator stations, and other similar equipment and accessories in connection therewith, reasonably necessary for the furnishing of street or utility services by such public utilities, municipal departments, commissions or any governmental agencies, or for the public health, safety or welfare.

Fluctuating noise means a noise whose sound pressure level varies significantly but does not equal the ambient environmental level more than once during the period of observation.

IEC means International Electrotechnical Commission or its successor bodies.

Impulse noise means brief excursions of sound pressure which significantly exceed the ambient environmental sound pressure. The duration of a single impulse is usually less than one second.

Intermittent noise means a noise whose sound pressure level equals the ambient environmental level two or more times during the period of observation. The period of time during which the level of the noise remains at an essentially constant value different from that of the ambient noise level is on the order of one second or more.

ISO means the International Organization for Standardization or its successor bodies.

Motor vehicle means any passenger vehicle, truck, truck-trailer, or semitrailer propelled or drawn by mechanical power.

Octave band means a frequency band with lower and upper cutoff frequencies having a ratio of 2. The cutoff frequencies of 707 Hertz and 1414 Hertz define an octave band in common use.

Period of observation means the time interval during which acoustical data are obtained. The period of observation is determined by the characteristics of the noise being measured and should also be at least ten times as long as the response time of the instrumentation. The greater variance in indicated sound level, the longer must be the observation time for a given expected accuracy of the measurement.

Person means every natural person, partnership, association or corporation which may own, operate or control those devices or facilities herein described.

Repetitive impulse noise means more than five impulses per hour.

SAE means the Society of Automotive Engineers or its successor bodies.

Sound level or noise level means for airborne sound, a weighted sound pressure level, obtained by the use of metering characteristics and A-weighting as specified in the referenced standards. When the A-weighting is employed, it must be indicated.

Sound pressure level means a sound, in decibels, is 20 times the logarithm to the base 10 of the ratio of the pressure of this sound to the reference sound pressure having the value of 2×10^{-4} dynes per square centimeter.

Steady noise means a noise whose level remains essentially constant.

Zoning district means districts established by the zoning provisions of this Code.

(Code 1983, § 18.1)

Cross reference— Definitions generally, § 1-2.

Sec. 30-102. - Prohibited acts.

The following acts are prohibited:

- (1) No person shall make, or cause, permit or allow to be made, upon a public way, or in such close proximity to a public way as to be distinctly and loudly audible upon such public way, any noise of any kind by crying, calling or shouting, or by means of any whistle, rattle, bell, gong, clapper, hammer, drum, horn, hand organ, mechanically operated piano, other musical instrument, wind instrument, mechanical device, radio, phonograph, sound amplifying or other similar electronic device; provided, however, that a licensed peddler is not hereby restricted or prohibited so long as he shall have met the requirements and conditions hereinafter specified in subsection (5) of this section; nor does this subsection apply to bands and orchestras or similar musical bodies utilized as part of a parade or similar authorized musical production.
- (2) No person shall use or perform any hand organ or other musical instrument or device, in any public way or public place of the city before 7:00 a.m. or after 10:00 p.m. of any day.
- (3) No person shall use any premises or suffer any premises under his care or control to be used which shall destroy the peace and tranquility of the surrounding neighborhood.
- (4) No person shall use any piledriver, shovel, hammer, derrick, hoist, tractor, roller or any other mechanical apparatus in building or construction operations between the hours of 10:00 p.m. and 7:00 a.m. except for work on essential services, within 600 feet of a residence or hospital.
- (5) No person shall activate or cause or suffer to be activated any horn or audible signal device on any motor vehicle of any kind except as a warning of danger or peril as provided in the traffic code adopted by the city.

- (6) No person shall operate or allow to be operated any motor of a motor vehicle which weighs in excess of five tons (10,000 pounds) for a consecutive period of longer than two minutes while such vehicle is in a stationary location on private property located within 150 feet of property devoted to residential uses. The provisions of this subsection shall not apply to:
 - a. A vehicle or motor being used in the course of normal productive work;
 - b. A vehicle or motor being used by a public utility, municipal department, commission or other governmental agency to provide essential services;
 - c. Uses operated for the transportation of passengers while standing in established bus turnarounds, terminals or storage yards; or
 - d. Any vehicle standing within a completely enclosed structure.
- (7) No person shall sell, or offer for sale, a new motor vehicle that produces a maximum noise exceeding the following noise limit at a distance of 50 feet from the centerline of travel, under test procedures, standards and recommended practices as itemized in this subsection and with reference to sections 30-103 and 30-104. Such stock as is certified to the director on the effective date of the ordinance from which this section is derived shall be exempt from the prohibition contained in this subsection. Test procedures shall be in substantial conformity with standards and recommended practices established by the Society of Automotive Engineers, Inc., including SAE Recommended Practice J-184, and ANSI Standards S1.1 1960 and S1.4 1961.

Type of Vehicle		Date of Manufacture	Noise Limit dB(A)
a.	Motorcycle:	Before July 1, 1973	88
		After July 1, 1973	<u>86</u>
		After January 1, 1975	84
		After January 1, 1980	75
		Test procedures per SAE Proposed Standard J-331	
b.	Any motor vehicle with a gross vehicle weight of 10,000 pounds or more:	Before July 1, 1973	88
		After July 1, 1973	<u>86</u>
		After January 1, 1975	84
		After January 1, 1980	75
		Test procedures per SAE Standard J-366a	

(8)

No person shall operate within the speed limits specified in this section either a motor vehicle or combination of vehicles of a type subject to registration at any time or under any condition as to exceed the following noise limit for the category of motor vehicle, measured at a distance of not less than 50 feet from the centerline of travel, under ANSI Standards S1.1—1960 and S1.4—1961, SAE Standard J-184 with meter set for fast response and the A-weighted scale.

Types of Vehicles		Noise Limit in Relation to Posted Speed Limit (dB(A))	
		35 mph or less	Over 35 mph
a.	Any motor vehicle with a manufacturer's GVW rating of 10,000 pounds or more, and any combination of vehicles towed by such motor vehicle:		
	Before July 1, 1973	88	<u>90</u>
	After July 1, 1973	<u>86</u>	<u>90</u>
b.	Any motorcycle:		
	Before July 1, 1978	<u>82</u>	<u>86</u>
	After July 1, 1978	<u>78</u>	<u>82</u>
c.	Any other motor vehicle and any combination of motor vehicles towed by such vehicle:		
	Before July 1, 1978	<u>78</u>	<u>82</u>
	After July 1, 1978	73	79

This section applies to the total noise from a vehicle or combination of vehicles and shall not be construed as limiting or precluding the enforcement of any other provisions of this Code relating to motor vehicle mufflers for noise control.

- (9) No person shall operate a motor vehicle or combination of vehicles, of a type subject to registration, at any time or under any condition when the noise limit established in this subsection is exceeded under stationary test procedures as outlined for this section.

Type of Vehicle	Stationary Engine Speed	Microphone Distance	Noise Limit
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			From Vehicle	(dB(A))
a.	Any motor vehicle with a manufacturer's GVW rating of 10,000 pounds or more, and any combination of vehicles towed by such motor vehicle	Maximum governor speed (not applicable to vehicles without governors). Ungoverned vehicles of this class shall be tested as provided for in this section.	35 feet from centerline of vehicle	93
b.	Any motorcycle	75 percent of motor speed at maximum developed horsepower	75 inches from near side of vehicle	
	Before July 1, 1978			99
	After July 1, 1978			95
c.	Any other motor vehicle and any combination of motor vehicles towed by such vehicle	3,000 revolutions per minute (RPM)	20 inches from end of tailpipe	
	Before July 1, 1978			94
	After July 1, 1978			<u>90</u>

(10) No person shall sell, lease or agree to sell or lease any of the types of equipment enumerated in this subsection which shall exceed the noise level established in this subsection at a distance of 50 feet, under test procedures and Standards SAE J-184, SAE J-952b, ANSI S1.1—1960, ANSI S1.4—1961 and with reference to sections 30-103 and 30-104.

Type of Equipment	Noise Limit (dB(A))
a.	Construction and industrial machinery, such as crawlers-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons,

	pavement breakers, compressors and pneumatic powered equipment, etc., but not including piledrivers, manufactured after:	
	July 1, 1973	88
	January 1, 1975	<u>86</u>
	January 1, 1980	80
b.	Agricultural tractors and equipment manufactured after:	
	July 1, 1973	88
	January 1, 1975	<u>86</u>
	January 1, 1980	80
c.	Powered commercial equipment of 20 hp or less intended for infrequent use in a residential area, such as chain saws, pavement breakers, log chippers, powered hand tools, etc., manufactured after:	
	July 1, 1973	84
	January 1, 1980	80
d.	Powered equipment intended for repetitive use in residential areas. Such equipment includes lawn mowers, small lawn and garden tools, riding tractors and snow removal equipment manufactured after:	
	July 1, 1973	<u>74</u>
	January 1, 1975	<u>70</u>
	January 1, 1978	65

(11) No person shall alter, modify or change any exhaust muffler, intake muffler or other equipment designed to abate noise on any motor equipment unless such alteration, modification or change shall reduce the noise emitted by such equipment. Nothing in this section shall be interpreted to prohibit the

replacement of worn noise abatement equipment certified as meeting or exceeding specifications of the manufacturer's original equipment.

- (12) In I-1 light industrial zoning districts and I-3 restricted industrial zoning districts, at no point on the boundary of a residence, business or commercial district shall the sound pressure level of any individual operation or plant, or the combined operations of any person, firm or corporation, exceed the decibel levels in the designated octave bands shown below for the zoning districts indicated as measured using test equipment per ANSI Standards S1.1—1960, S1.4—1961, S1.11—1966, and S1.12—1967, and SAE J-184, and with reference to sections 30-103 and 30-104.

Octave Band Center Frequency (Hz)	Maximum Sound Pressure Levels dB Along District Boundaries (Daytime, Steady Noise)	
	Residence	Business and Commercial
31.5	72	79
63	71	<u>78</u>
125	65	72
250	57	64
500	51	<u>58</u>
1,000	<u>45</u>	52
2,000	39	<u>46</u>
4,000	<u>34</u>	41
8,000	32	39

Maximum repetitive impulse noise sound pressure levels to be 10 dB lower than the values shown for steady noise.

For monitoring purposes, the A scale levels (slow response) of 55 dB(A) and 62 dB(A) respectively for residence and business-commercial districts may be used. Any noise levels in excess of these values constitute a violation of this subsection. Where noise levels below the above mentioned 55 dB(A) and 62 dB(A) are measured, the octave band test is to be applied in order to determine compliance with this subsection. Maximum nighttime sound pressure levels (10:00 p.m. to 7:00 a.m.) are to be 7 dB lower than the values shown for daytime steady noise for each octave band center frequency.

- (13) In I-2 industrial zoning districts, at no point either on the boundary of a residence, business or commercial district, or at 125 feet from the nearest property line of a plant or operation, whichever distance is greater, shall the sound pressure level of any individual operation or plant, or the combined operations of any person, firm or corporation, exceed the decibel levels in the designated octave bands shown below for the zoning districts included, as measured using test equipment per ANSI Standards S1.1—1960, S1.4—1961, S1.11—1966, and S1.12—1967, and SAE J-184, and with reference to sections 30-103 and 30-104.

Octave Band Center Frequency (Hz)	Maximum Sound Pressure Levels dB Along District Boundaries (Daytime, Steady Noise)	
	Residence	Business and Commercial
31.5	75	80
63	<u>74</u>	79
125	69	<u>74</u>
250	64	69
500	<u>58</u>	63
1,000	52	57
2,000	47	52
4,000	<u>43</u>	48
8,000	40	<u>45</u>

Maximum repetitive impulse noise sound pressure levels to be 10 dB lower than the values shown for steady noise.

For monitoring purposes the A scale levels (slow response) of 61 dB(A) and 66 dB(A), respectively, for residence and business-commercial districts may be used. Any noise levels in excess of these values constitute a violation of this subsection. Where noise levels below the 61 dB(A) and 66 dB(A) values are measured, the octave band test is to be applied in order to determine compliance with this subsection. Maximum nighttime sound pressure levels (10:00 p.m. to 7:00 a.m.) are to be 7 dB lower than the values shown for daytime steady noise for each octave band center frequency.

- (14)

In business and commercial zoning districts, all activities involving the production, processing, cleaning, servicing, testing, repairing of materials, goods or products, or any property use shall conform with the performance standards stated in subsection (12) of this section, provided that performance standards shall in every case be applied at the boundaries of the lot on which any such activities take place.

- (15) In residential zoning districts, any property use shall conform with the performance standards stated in subsection (12) of this section for residence district boundaries, provided that performance standards shall in every case be applied at the boundaries of the lot on which such use is established.
- (16) The maximum sound pressure levels established in subsections (12), (13), (14) and (15) of this section to be applied to the boundaries of a lot shall not apply to construction sites. Construction site noise level shall be regulated by subsection (4) of this section.
- (17) Any property uses established in an industrial, business or commercial district shall be so operated as to comply with the performance standards governing vibrations set forth as follows:
- a. In an I-2 industrial zoning district any property use creating intense or shaking vibrations such as are created by drop forges or heavy hydraulic surges shall be set back at least 300 feet from the zoning district line of any residence or commercial zoning district and controlled in such manner as to prevent such transmission beyond the zoning district line of earth-shaking vibrations perceptible without the aid of instruments.
 - b. In an I-1 light industrial zoning districts and I-3 restricted industrial zoning districts, or any business or commercial zoning district, any property use creating earth-shaking vibrations, such as are created by drop forges or hydraulic surges, shall be controlled in such manner as to prevent transmission beyond the lot lines of earth-shaking vibrations perceptible without the aid of instruments.
- (18) No person shall sell or offer for sale any engine-powered pleasure vessel, engine-powered craft or motorboat which may exceed the following noise limit as measured at the distance of 50 feet under test procedures per SAE J-952b and with reference to SAE J-184 and ANSI Standards S-1.1—1960, S1.4—1961 and sections 30-103 and 30-104.
- (19) No person shall sell or offer for sale a new power-driven recreational or off-highway vehicle, including dune buggies and snowmobiles, go-carts, and minibikes, that produce noise measured at the distance of 50 feet exceeding the following, under test procedures per SAE J-952b and with reference to SAE J-184 and ANSI Standards S1.1—1960, S1.4—1961, and sections 30-103 and 30-104.

a.	Type of Vehicle	Date of Manufacture	Noise Limit (dB(A))
	Snowmobile	After July 1, 1973	<u>82</u>
		After July 1, 1974	73
	Any other vehicle including dune buggy, all-terrain vehicle, go-cart, minibike	After July 1, 1973	<u>82</u>
		After July 1, 1975	73

This subsection shall not be interpreted to include motor homes, off-highway trucks, construction equipment and other equipment included under subsections (7) and (10) of this section.

- b. No person shall operate a motor-driven vehicle of a type not subject to registration for road use, at any time or under any condition of acceleration or deceleration as to exceed the following noise limits as measured from the distance of 50 feet under ANSI Standards S1.1—1960 and S1.4—1961, and SAE Standard J-184 with meter set for fast response and the A-weighted scale.

Date of Manufacture	Noise Limit (dB(A))
Before July 1, 1973	<u>86</u>
After July 1, 1973	<u>82</u>

This subsection shall not be interpreted to include the operation of off-highway trucks and construction equipment, regulated under subsection (10) of this section.

(Code 1983, § 18.2; Ord. No. 6-01, §§ 1, 2, 4-2-01)

Sec. 30-103. - Test procedures.

Test procedures as to noise levels emitted by motor vehicles and by engine powered equipment when offered for sale shall conform to SAE recommended practices:

- (1) SAE J-184 Qualifying a Sound Data Acquisition System. SAE Recommended Practice;
- (2) SAE J-331 SAE Standard for Sound Levels for Motorcycles, as it is proposed on the effective date of the ordinance from which this article is derived;
- (3) SAE J-366a Exterior Sound Level for Heavy Trucks and Buses, SAE Recommended Practice;
- (4) SAE J-952b Sound Levels for Engine Powered Equipment, SAE Standard; and
- (5) SAE J-986a Sound Levels for Passenger Cars and Light Trucks, SAE Standard.

(Code 1983, § 18.3)

Sec. 30-104. - Test equipment standards.

Test equipment standards applicable to tests and measurements described and required in this article are:

- (1) ANSI S1.1—1960, Acoustic Terminology (ISO R131) (IEC 50-08);
- (2) ANSI S1.4—1961, General Purpose Sound Level Meters (IEC-123—1961);
- (3) ANSI S1.11—1966, Octave, Half Octave and Third Octave Band Filter Sets (IEC 225—1966);
- (4) ANSI S1.12—1967, Laboratory Standard Microphones; and
- (5) IEC 179—1965, Precision Sound Level Meters.

(Code 1983, § 18.4)

Sec. 30-105. - Certification of equipment.

The director may require, upon reasonable notice, that the manufacturer, distributor, importer, or designated agent shall certify in writing to the city that his vehicles or equipment sold or offered for sale within the city complies with the applicable provisions of the appropriate subsections of this article.

(Code 1983, § 18.5)

Sec. 30-106. - Adjustment of noise standards.

It is the intent of the city to reevaluate periodically the future noise level limits and other standards contained in this article, and, if it is determined to be appropriate, to adjust such standards either upward or downward in light of future possible advances in technology or the state of the art.

(Code 1983, § 18.6)

Sec. 30-107. - Citizens complaint.

Any citizen shall have the right to file a complaint with the city concerning any violation of this article. The city shall direct the person in violation to correct the situation immediately. If such situation is corrected immediately there shall be no fine for the first offense. If the situation is not corrected within a reasonable time, as specified by the city official, then the penalties as imposed by this article shall be applicable.

(Code 1983, § 18.7)

Sec. 30-108. - Variances.

- (a) The provisions of this chapter shall not apply to those events, activities or locations which have been granted a variance, as hereinafter provided, by the construction board of appeals.
- (b) The construction board of appeals shall have the authority to grant noise variances subject to the conditions and under the circumstances set out in this section. Variances shall, subject to any conditions imposed by the board, exclude the event, activity or location for which the variance is issued from the requirements of this chapter.
- (c) Any person seeking a variance shall file an application with the city clerk on a form prescribed by the city. The application shall contain, in addition to such information as shall be required by the city, information demonstrating that bringing the source of sound or the activity involved into compliance with this chapter would cause an unreasonable hardship for the applicant. Upon receiving the application, the clerk shall submit it to the building official. The building official shall complete such investigation as he deems necessary concerning the application. This investigation may include consulting with such city departments as he may deem necessary or desirable. The building official shall prepare a report and recommendation to the construction board of appeals. A public hearing shall be held by the construction board of appeals in accordance with the provisions of this Code and the procedures established by the board. The city shall give notice of the public hearing by regular mail, to any property owner of record whose property is located within 300 feet from the property or location for which the variance is sought.
- (d) The city or the construction board of appeals may require or permit the following:
 - (1) Require the applicant to provide such information as may be necessary to determine if the grant of the variance is appropriate.
 - (2) Permit the applicant to offer such evidence as it desires to establish the applicant's position that a variance should be granted.
 - (3) Permit those opposing the applicant's request for a variance to offer evidence in opposition to the granting of a variance.
 - (4) Refuse to receive or hear evidence that is merely cumulative, and reasonably limit the time allowed to present evidence by those supporting and those opposing the application.
- (e)

The construction board of appeals shall make a determination as to whether a variance should be granted. The determination to grant or deny a variance shall be based upon the factors set forth in subsection (f) of this section and shall state the reasons for the grant or denial of the variance in writing.

- (f) The following factors shall be considered in determining whether to grant the variance:
- (1) The balance of the hardship to the applicant in not granting the variance against any adverse impact on the health, safety and welfare of persons affected by the granting of the variance.
 - (2) The number, if any, of previous variances granted to the applicant, or for the same location or activity.
 - (3) The nearness of any residence, or any other use which would be adversely affected by noise in excess of the limits prescribed by this chapter.
 - (4) The sound level of the sound to be generated by the event or activity.
 - (5) Whether the type of noise to be produced by the event or activity is usual or unusual for the location or area for which the variance is requested.
 - (6) The density of population of the area in which the event or activity is to take place.
 - (7) The time of day or night which the activity or event will take place.
 - (8) The nature of the sound to be produced, including whether the sound will be steady, intermittent or of a repetitive impulse nature.
- (g) The construction board of appeals shall not consider the communicative content of the activity or event in determining whether to grant or deny a variance.
- (h) Variances for temporary or individual events shall only be granted subject to the following conditions:
- (1) That the event or activity for which the permit is sought shall be held in a public place.
 - (2) That the event or activity for which the permit is sought shall be open to the public. There shall be no discrimination on the basis of race, color, creed, national origin or sex.
- (i) Variances may be granted for permanent and/or long-term activities only if the construction board of appeals determines that the granting of a long-term or permanent variance is necessary because bringing the property into compliance with this chapter would cause an unreasonable hardship upon the applicant.
- (j) Variances issued may be subject to reasonable conditions as the construction board of appeals may require, including but not limited to:
- (1) Limiting the days of the week for which the variance is valid.
 - (2) Limiting the number of days for which the variance is valid.
 - (3) Limiting the hours of the day, or days, for which the variance is valid.

Conditions shall be noted on the variance issued to the applicant. Noncompliance with any condition of the variance shall terminate the variance and subject the applicant, event or activity to the provisions of this chapter.

- (k) Any variance issued pursuant to this section shall be kept at the site of the event or activity for which the variance is obtained. The variance shall be displayed, on request, to any city, county or state employee. The requirements of this subsection are hereby made express conditions of the granting of the variance, and failure to comply with these conditions shall cause the variance to terminate.
- (l) The construction board of appeals, in granting or denying a variance pursuant to this section, shall be an administrative body subject to review as provided in the state constitution.
- (m) The applicant shall pay a filing fee to the city upon filing of the application for the noise variance in an amount to be determined by resolution of the city council.

(Code 1983, § 18.8; Ord. No. 1-97, § 1, 2-17-97)

Sec. 30-109. - Exemptions.

The provisions of this article shall not apply to:

- (1) Equipment owned and/or operated by the city, whether in the ordinary or in emergency situations.

- (2) A food distribution warehouse facility, under the following conditions:
- a. The facility is operating in the ordinary course of business;
 - b. A minimum of 100 feet of railroad right-of-way separates the warehouse facility from the boundary of a residential neighborhood, commercial or industrial area; and
 - c. A noise wall of at least 16 feet in height separates the warehouse facility from the residential neighborhood, commercial or industrial area. The noise wall must be located on the residential side of the right-of-way where the residential neighborhood borders the right-of-way, but it may be located on either side of the right-of-way where the commercial or industrial area borders the right-of-way.

(Ord. No. 13-03 § 1, 5-27-03)

Secs. 30-110—30-130. - Reserved.