# Chapter 8.40 - NOISE CONTROL Sections:

# 8.40.010 - Purposes.

The board of supervisors declares and finds that excessive noise levels are detrimental to the public health, welfare and safety and contrary to the public interest as follows:

Α.

By interfering with sleep, communication, relaxation and the full use of one's property;

В.

By contributing to hearing impairment and a wide range of adverse physiological and psychological stress conditions; and

C.

By adversely affecting the value of real property.

It is the intent of this chapter to protect persons from excessive levels of noise within or near a residence, school, church, hospital or public library and to warn persons of the hazards of excessive noise in places of public entertainment.

(Ord. 602, § 1, 1978)

# • 8.40.020 - Definitions.

The following words, phrases and terms as used in this chapter shall have the following meanings:

Α.

"Agricultural property" means land used for or devoted to the production of crops and livestock.

В.

"Ambient noise level" means the composite of noise from all sources excluding the alleged offensive noise. In this context it represents the normal or existing level of environmental noise at a given location for a specified time of the day or night.

C.

"'A' weighted sound level" means the sound level in decibels as measured with a sound level meter using the "A" weighted network (scale) at slow meter response. The unit of measurement is referred to herein as dB(A) or dBA.

D.

"Construction" means construction, erection, enlargement, alteration, conversion or movement of any building, structures or land together with any scientific surveys associated therewith.

E.

"Cumulative period" means an additive period of time composed of individual time segments which may be continuous or interrupted.

F.

"Decibel" means a unit for measuring the amplitude of a sound, equal to twenty times the logarithm to the base ten of the ratio of the pressure of the sound measured to the reference pressure, which is twenty micropascals.

G.

"Emergency work" means the use of any machinery, equipment, vehicle, manpower or other activity in a short term effort to protect, or restore safe conditions in the community, or work by private or public utilities when restoring utility service.

Н.

"Fixed noise source" means a device or a machine which creates sounds while fixed or stationary, including but not limited to residential, agricultural, industrial and commercial machinery and equipment, pumps, fans, compressors, air conditioners and refrigeration equipment.

I.

"Health officer" means the health officer of the county or his duly authorized deputy.

J. "Hospital" means any building or portion thereof used for the accommodation and medical care of the sick, injured or infirm persons and includes rest homes and nursing homes.

K. "Impulsive noise" means a noise of short duration, usually less than one second, with an abrupt onset and rapid decay.

L. "Intruding noise level" means the sound level created, caused, maintained or originating from an alleged offensive source, measured in decibels, at a specified location while the alleged offensive source is in operation.

M.

"Mobile noise source" means any noise source other than a fixed noise source.

N. "Noise disturbance" means any sound which violates the quantitative standards set forth in this chapter.

O.

"Residential property" means a parcel of real property which is developed and used either in whole or in part for residential purposes.

P. "School" means public or private institutions conducting regular academic instruction at preschool, kindergarten, elementary, secondary or collegiate levels.

Q.

"Simple tone noise" means any noise which is distinctly audible as a single pitch (frequency) or set of pitches as determined by the health officer.

R.
"Sound level meter" means an instrument meeting American National Standard Institute's Standard S1.4-1971 for Type I or Type 2 sound level meters or an instrument and the associated recording and analyzing equipment which will provide equivalent data.

(Ord. 602, § 1, 1978)

## 8.40.030 - Noise measurement criteria.

Any noise measurement made pursuant to the provisions of this chapter shall be made with a sound level meter using the "A" weighted network (scale) at slow meter response. Fast meter response shall be used for impulsive type sounds. Calibration of a measurement equipment utilizing an acoustic calibrator shall be performed immediately prior to recording any noise data.

The exterior noise levels shall be measured within fifty feet of the affected residence, school, hospital, church or public library. Where practical, the microphone shall be positioned tree to five feet above the ground and away from reflective surfaces.

The interior noise levels shall be measured within the affected dwelling unit, at points at least four feet from the wall, ceiling or floor nearest the noise source, with windows in the normal seasonal configuration. The reported interior noise level shall be determined by taking the arithmetic average of the readings taken at the various microphone locations.

(Ord. 78-602, § 1)

# 8.40.040 - Exterior noise standards.

It is unlawful for any person, including an owner, whether through the owner or the owner's agent, lessee, sublessor, sublessee or occupant, at any location within the unincorporated area of the county, to create any noise, or to allow the creation of any noise, on property owned, leased, occupied or otherwise controlled by such person which causes the exterior noise level when measured at any affected single- or multiple-family residence, school,

hospital, church or public library situation in either the incorporated or unincorporated area to exceed the noise level standards as set forth in the following table:

|          |  | Noise Level Standards, dBA       |                             |  |
|----------|--|----------------------------------|-----------------------------|--|
| Category | Cumulative Number of minutes in any one-hour time period | Daytime 7 a.m. to <u>10</u> p.m. | Nighttime 10 p.m. to 7 a.m. |  |
| <u>1</u> | 30   | 50                               | 45                          |  |
| <u>2</u> | <u>15</u>  | 55                               | 50                          |  |
| <u>3</u> | <u>5</u>   | 60                               | 55                          |  |
| 4        | <u>1</u>   | 65                               | 60                          |  |
| <u>5</u> | 0  | 70                               | 65                          |  |

- B.
  In the event the measured ambient noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted so as to equal the ambient noise level.
- C.
   Each of the noise level standards specified above shall be reduced by five dB(A) for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.
   D.
- If the intruding noise source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the noise level standards.

(Ord. 01-013, § 1; Ord. 78-602, §)

## 8.40.050 - Interior noise standards.

Α

It is unlawful for any person, at any location within the unincorporated are of the county to operate or cause to be operated within a dwelling unit, any source of sound or to allow the creation of any noise which causes the noise level when measured inside a receiving dwelling unit situated in either the incorporated or unincorporated are to exceed the noise level standards as set forth in the following table:

|          |  | Noise Level Standards, dBA |                             |  |
|----------|--|----------------------------|-----------------------------|--|
| Category | Cumulative Number of minutes in any one-hour time period | Daytime 7 a.m. to 10 p.m.  | Nighttime 10 p.m. to 7 a.m. |  |
| <u>1</u> | <u>5</u>   | 45                         | 35                          |  |
| 2        | <u>1</u>   | 50                         | 40                          |  |
| <u>3</u> | 0  | 55                         | 45                          |  |

- B.
  In the event the measured ambient noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted so as to equal the ambient noise level.
- C. Each of the noise level standards specified above shall be reduced by five dB(A) for simple tone noises, noises consisting primarily of speech or music, or for recurring impulse noises.
- D. If the intruding noise source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the noise level standards.

(Ord. 01-013, § 2; Ord. 78-602, § 1)

F.

# 8.40.060 - Noise source exemptions.

The following activities shall be exempted from the provisions of this chapter:

- A.

  Activities conducted in public parks, public playgrounds, and public or private school grounds, including but not limited to school athletic and school entertainment events;
- B.

  Any mechanical device, apparatus or equipment used, related to or connected with emergency activities or emergency work;
- C.
  Noise sources associated with construction, provided such activities do not take place before six a.m. or after nine p.m. on any day except Saturday or Sunday, or before seven a.m. or after five p.m. on Saturday or Sunday;
- D. Noise sources associated with the maintenance of residential property provided such activities take place between the hours of six a.m. and nine p.m. on any day except Saturday or Sunday, or between the hours of seven a.m. and nine p.m. on Saturday or Sunday;
- E. Noise sources associated with agricultural activities on agricultural property;
  - Noise sources associated with a lawful commercial or industrial activity caused by mechanical devices or equipment, including air conditioning or refrigeration systems, installed prior to the effective date of this chapter; that this exemption shall expire on July 1, 1980;

- G.
   Noise sources associated with work performed by private or public utilities in the maintenance or modification of its facilities;
- H. Noise sources associate with the drilling or redrilling of petroleum, gas, injection or water wells;
- Noise sources associated with the collection of waste or garbage from property devoted to commercial or industrial uses:
- J.
  Any activity to the extent regulation thereof has been preempted by state or federal law. (Ord. 602, § 1, 1978)

## 8.40.070 - Air conditioning and refrigeration.

Notwithstanding the provisions of <u>Section 8.40.040</u> where the intruding noise source when measured as provided in <u>Section 8.40.030</u> is an air conditioning or refrigeration system or associated equipment installed prior to July 1, 1980, the exterior noise level shall not exceed fifty-five dBA, except where such equipment is exempt from the provisions of this chapter. The exterior noise level shall not exceed fifty dBA for such equipment installed or in use after July 1, 1980. (Ord. 602, § 1, 1978)

# 8.40.080 - Waste and garbage collection equipment.

Notwithstanding the provisions of <u>Section 8.40.040</u>, noise sources associated with the collection of waste or garbage from residential property by persons authorized to engage in such activity, and who are operating truck-mounted loading or compacting equipment, shall not take place before six a.m. or after seven p.m., and the noise level created by such activities when measured at a distance of fifty feet in an open area shall not exceed the following standards:

- Eighty-five dBA for equipment in use, purchased or leased within six months from the effective date of this chapter;
- Eighty dBA for that equipment set forth in subsection D (1) above after five years from the effective date of this chapter.
- Eighty dBA for new equipment purchased or lease after six months from the effective date of this chapter.
  - Seventy-five dBA for new equipment purchased or leased after thirty-six months from the effective date of this chapter.

(Ord. 602, § 1, 1978)

4.

#### 8.40.090 - Electrical substations.

Notwithstanding the provisions of <u>Section 8.40.040</u>, noise sources associated with the operation of electrical substations shall not exceed fifty dBA when measured as provided in <u>Section 8.40.030</u>. (Ord. 602, § 1, 1978)

# 8.40.100 - Warning signs in places of public entertainment.

It is unlawful for any person to operate or permit the operation or playing of any loudspeaker, musical instrument, motorized racing vehicle, or other source of sound for public entertainment within a building or structure wherein the noise level exceeds ninety-five dBA as read on the slow response of a sound level meter at any point normally occupied by a customer, without a

conspicuous and legible sign stating: "WARNING! SOUND LEVELS WITHIN MAY CAUSE HEARING IMPAIRMENT."

(Ord. 602, § 1, 1978)

## 8.40.110 - Variances.

Α

The owner or operator of a noise source which the health officer has determined violates any of the provisions of this chapter may file an application with the health officer for variance from strict compliance with any particular provisions of this chapter were such variance will not result in a hazardous condition or a nuisance and strict compliance would be unreasonable in view of all the circumstances. The owner or operator shall set forth all actions taken to comply with such provisions, and the reasons why immediate compliance cannot be achieved. A separate application shall be filed for each noise source; provided, however, that several mobile sources under common ownership or fixed sources under common ownership on a single property may be combined into one application.

B.

Upon receipt of the application and within thirty days, the health officer shall either (1) approve such request in whole or in part, (2) deny the request, or (3) refer the request directly to the board of review for action thereon in accordance with the provisions of this chapter. In the event the variance is approved, reasonable conditions may be imposed which may include restrictions on noise level, noise duration and operating hours, an approved method of achieving compliance and a time schedule for its implementation. The decision of the health officer is subject to appeal to the board of review for a hearing de novo by filing a written appeal with the health officer not later than fifteen days following the mailing of the health officer's decision to the applicant.

C.

Factors which the health officer or the reviewing body must consider shall include but not be limited to the following:

1.

Uses of property within the area affected by the noise;

2.

Factors related to initiating and completing all remedial work;

3.

Age and useful life of the existing noise source;

4.

The general public interest, welfare and safety.

D.

The board of review may grant variances from provisions of this chapter subject to such terms, conditions and requirements and may be deemed reasonable to achieve compliance with the provisions of this chapter. The health officer or his duly appointed representative shall act as secretary of the board of review during its consideration of a variance from the provisions of this chapter.

E.

Within fifteen days following the decision of the board of review on an application for a variance, the applicant may appeal the decision to the board of supervisors for a hearing de novo by filing a notice of appeal with the clerk of the board of supervisors. The board of supervisors shall either affirm, modify or reverse the decision of the board of review. Such decision shall be final and shall be based upon the considerations set forth in this section.

(Ord. 602, § 1, 1978)

# • 8.40.120 - Violation—Enforcement.

The violation of any of the provisions of this chapter shall be an infraction punishable as provided in <u>Section 1.12.020</u> of this code. The provisions of this chapter may also enforced an injunction issued out of the superior court upon suit of the county. Any violation of the provisions of this chapter shall be deemed to be a public nuisance.

The county health officer shall enforce the provisions of this chapter. Right of entry for inspection shall be as provided <u>Section 1.08.010</u> of this code. (Ord. 602, § 1, 1978)



## **NOISE ATTENUATION BY DISTANCE (Point Source)**

## **PROJECT DATA (Optional)**

Project Stonehouse Tavern

Remarks House to SE building will block some noise

Your ref Client Identification Client's ref

#### **CALCULATION INPUT**

#### **Source Noise Levels**

Sound Pressure Level (SPL, Lp) at 7 ft from source 95 dB(A)

## **Transmission path**

spherical

## **Immission Point (listener)**

Distance from Source 220 ft

#### **CALCULATION RESULTS**

## **Sound levels**

Source Sound Power Level (PWL) 112.6 dB(A)

#### **Attenuation**

Attenuation by distance of 67.06 m 47.5

## Immission (listener's) point

Sound Pressure Level (SPL, Lp) 65.1 dB(A)

## **NOISE ATTENUATION BY DISTANCE (Point Source)**

## **PROJECT DATA (Optional)**

Project Stonehouse Tavern

Remarks house to NW

Your ref Client Identification Client's ref

#### **CALCULATION INPUT**

#### **Source Noise Levels**

Sound Pressure Level (SPL, Lp) at 7 ft from source 80 dB(A)

## **Transmission path**

spherical

## **Immission Point (listener)**

Distance from Source 224 ft

#### **CALCULATION RESULTS**

#### **Sound levels**

Source Sound Power Level (PWL) 97.6 dB(A)

#### **Attenuation**

Attenuation by distance of 68.28 m 47.7

## Immission (listener's) point

Sound Pressure Level (SPL, Lp) 49.9 dB(A)

## **NOISE ATTENUATION BY DISTANCE (Point Source)**

## **PROJECT DATA (Optional)**

Project Stonehouse Tavern

Remarks house to NW

Your ref Client Identification Client's ref

#### **CALCULATION INPUT**

#### **Source Noise Levels**

Sound Pressure Level (SPL, Lp) at 7 ft from source 95 dB(A)

## **Transmission path**

spherical

## **Immission Point (listener)**

Distance from Source 224 ft

#### **CALCULATION RESULTS**

## **Sound levels**

Source Sound Power Level (PWL) 112.6 dB(A)

#### **Attenuation**

Attenuation by distance of 68.28 m 47.7

## Immission (listener's) point

Sound Pressure Level (SPL, Lp) 64.9 dB(A)

## **NOISE ATTENUATION BY DISTANCE (Point Source)**

## **PROJECT DATA (Optional)**

Project Stonehouse Tavern
Remarks House to 225 NNE

Your ref Client Identification Client's ref

#### **CALCULATION INPUT**

#### **Source Noise Levels**

Sound Pressure Level (SPL, Lp) at 7 ft from source 95 dB(A)

## **Transmission path**

spherical

## **Immission Point (listener)**

Distance from Source 225 ft

#### **CALCULATION RESULTS**

## **Sound levels**

Source Sound Power Level (PWL) 112.6 dB(A)

#### **Attenuation**

Attenuation by distance of 68.58 m 47.7

## **Immission (listener's) point**

Sound Pressure Level (SPL, Lp) 64.9 dB(A)

# **Typical Noise Levels**

Take a look at the noise levels of many common appliances and events around the house. You might be surprised.

All sounds are measured at the distance that a person would typically be from the source.

| Device  | dBA    |
|---|--------|
| Grand Canyon at Night (no roads, birds, wind) | 10     |
| Quiet basement w/o mechanical equipment       | 20     |
| Quiet Room                                    | 28-33  |
| Computer                                      | 37-45  |
| Refrigerator                                  | 40-43  |
| Typical Living Room                           | 40     |
| Forced Hot Air Heating System                 | 42-52  |
| Radio Playing in Background                   | 45-50  |
| Background Music                              | 50     |
| Bathroom Exhaust Fan                          | 54-55  |
| Microwave                                     | 55-59  |
| Normal Conversation                           | 55-65  |
| Clothes Dryer                                 | 56-58  |
| Printer                                       | 58-65  |
| Window Fan on High                            | 60-66  |
| Alarm Clock                                   | 60-80  |
| Dishwasher                                    | 63-66  |
| Clothes Washer                                | 65-70  |
| Phone   | 66-75  |
| Push Reel Mower                               | 68-72  |
| Inside Car, Windows Closed, 30 MPH            | 68-73  |
| Handheld Electronic Games                     | 68-76  |
| Kitchen Exhaust Fan, High                     | 69-71  |
| Inside Car, Windows Open, 30 MPH              | 72-76  |
| Garbage Disposal                              | 76-83  |
| Air Popcorn Popper                            | 78-85  |
| Hairdryer                                     | 80-95  |
| Electric Can Opener                           | 81-83  |
| Vacuum Cleaner                                | 84-89  |
| Coffee Grinder                                | 84-95  |
| Handheld Electric Mixer                       | 86-91  |
| Lawn Mower                                    | 88-94  |
| Air Compressor                                | 90-93  |
| 1/4" Drill                                    | 92-95  |
| Food Processor                                | 93-100 |

| Weed Whacker             | 94-96   |
|--------------------------|---------|
| Leaf Blower              | 95-105  |
| Circular Saw             | 100-104 |
| Maximum Output of Stereo | 100-110 |

NPC Library Law Library Noise News Hearing Resources Quietnet Search Ask Us Support Us Home