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July 28, 1981

Edward F. Plocha, Commissioner - Department of Records - 160 CH

NOISE AND EXCESSIVE VIBRATION REGULATIONS

The above regulations, originally filed on January 29, 1981; a hearing held April 20, 1981; and refilled July 17, 1981 - became effective July 27, 1981, in accordance with Section 8-407(c) of the Home Rule Charter.

cc: S.H. Shapiro, M.D. - Health Commissioner
540 MSB

DEPARTMENT OF RECORDS

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CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC HEALTH

PROPOSED

NOISE & EXCESSIVE VIBRATION REGULATIONS

Approved by:

Board of Health
Department of Law
Department of Records

Advertised
Public Hearing

November 19, 1980
January 20, 1981
January 29, 1981
January 31, 1981
April 20, 1981

Reapproved by:

Board of Health

July 1, 1981

PREFACE

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These Noise and Excessive Vibration Regulations are promulgated pursuant to the Philadelphia Code, Chapter 10-400 Noise & Excessive Vibration, Section 10-406, Powers and Duties of the Board of Health.

These Regulations are divided into three categories, General Provisions, Specific Source Limitations and Motor Vehicles.

The General Provisions are intended to minimize noise and vibration emissions by prohibiting the emanation of sounds or vibrations from any activity or source which exceed the maximum permissible levels established hereafter.

Sounds levels of the source shall be measured at the point of complaint origination. Such complaint origination shall be a residential or commercial establishment external to the property in which the source is found. Sound and vibration levels shall be measured according to accepted test procedures selected by the Department and available to the public.

Section 1. Definitions

A. The following definitions are in the Noise Ordinance and apply to these Regulations:

- (1) Board - means the Board of Health.
- (2) Department - The Department of Public Health, Health Commissioner or any authorized representative thereof.

- (4) Facility - The area, buildings and equipment used by any person at a single location in the conduct of business.
- (3) Noise - The presence of a sound or sounds of such intensity, duration, frequency, or character which annoy, disturb, or cause or tend to cause adverse psychological and physiological effects on persons;
- (5) Person - Any individual, natural person, syndicate, association, partnership, firm, corporation, institution, agency, authority, department, bureau or instrumentality of federal, state or local government or other entity recognized by law as a subject of rights and duties.
- (6) Sound - 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.
- (7) Vibration - An oscillatory motion of solid bodies of deterministic or random nature described by displacement, velocity or acceleration with respect to a given reference point.
- (8) Excessive Vibration - The presence of a vibration or vibrations

(a) of such intensity, duration, frequency or character which annoy, disturb, or cause or tend to cause adverse psychological or physiological effects on persons, or damage or tend to damage personal or real property;

(b) in excess of standards promulgated by the Board of Health.

5. In addition to definitions provided in the Noise Ordinance, the following definitions apply to these Regulations.

(1) Background Sound Level - the measured sound level in the area without the sound contribution of the specific source in question.

(2) Commercial Establishment - A place where commodities are exchanged, bought or sold.

(3) Construction - Any site preparation, assembly, erection, repair, alteration, or similar action or the excavation, filling, grading and regulation of lots in connection therewith for or of public or private rights of way, structures, utilities or similar property, including demolition.

(4) Decibel (dB) - A unit for measuring the volume of sound equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure which is 20 micropascals (20 micronewtons per square meter).

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- Establishment - A place where any department or branch of art, occupation, or business is conducted as a means of livelihood or for profit; especially, one which employs much labor and capital and is a distinct branch of trade.
- (6) Property - All land whether improved or not improved, with or without structures.
- (7) Property Boundary - The surveyed line at ground surface which separates the facility owned, rented or leased by one or more persons from any other such facilities.
- (8) Siren - A device manually or electrically operated for producing a penetrating warning sound.
- (9) Sound Level - 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 (ANSI S1. 4-1971, or the latest revision thereof.) If the frequency weighting employed is not indicated, the A-weighting shall apply.
- (10) Sound Level Meter - An instrument which includes a microphone, amplifier, RMS detector, integrator or time averager, output meter and any applicable weighting network used to measure sound pressure levels.

- (11) Sound Pressure - The instantaneous difference between the actual pressure and the average or barometric pressure at a given point in space, as produced by sound energy.
- (12) Source - any emitter of sound and/or vibration.
- (13) Speaker Device - a device that converts the electrical output signal from an amplifier to a sound signal.

SECTION II. GENERAL PROVISIONS

A. SOUND LEVELS

Sound levels from any commercial and industrial source, excluding construction, shall not exceed the limits set forth in Table 1 at the point of complaint origination.

B. VIBRATION LEVELS

Vibration levels shall not exceed 0.2 inches per second beyond any source property boundary or 30 yards from any moving source.

C. DETERMINATION OF BACKGROUND SOUND LEVEL

The Department shall request the operator to discontinue the suspected source of noise in order to measure the background sound level. In the event this is not feasible, a measurement location shall be selected in the immediate vicinity, at such a point to minimize the alleged noise source contribution to the total sound level.

D. TAMPERING

- (1) No person shall operate any equipment unless all noise and/or vibration control devices installed thereon are in full operation.
- (2) No person shall circumvent or remove any sound level monitoring instrument, meter or device positioned by or for the Department.
- (3) No person shall remove or deface a noise label on any product.

SECTION III. SPECIFIC SOURCE LIMITATIONS

A. ANIMALS

Noise (as defined by Section 10-402 (4) of the Noise Ordinance and Section II (A) (4) of these Regulations) by animals for a period or periods aggregating more than 15 minutes in any one hour where such animals are under a person's control is prohibited. This provision shall not apply to public zoos or nature centers.

B. ASH, TRASH, OR GARBAGE COLLECTION

- (1) Sound levels from the handling of ash, trash or garbage receptacles at any commercial or industrial establishment shall not exceed the limits set forth in Table 1.
- (2) Ash, trash, or garbage collection which impacts on residential neighborhoods shall be prohibited between 9 PM and 7 AM without prior permission of the Department. Such permission shall be considered where there is strong evidence that traffic or other

problems of City-import require such action.

C. HOSPITALS, NURSING HOMES, HOUSES OF WORSHIP, COURTHOUSES
SCHOOLS AND LIBRARIES

- (1) Sound levels from a specific external source, excluding construction, shall not exceed 2 dBA above background at the property boundary of any hospital or nursing home at any time.
- (2) Sound levels from a specific external source excluding construction shall not exceed 2 dBA at the source of complaint origination where said source is within any house of worship, school, library or courthouse which is being used for its primary purpose if the effect of such action is to imminently disrupt the orderly course of worship, education, or administration of justice.

D. AMPLIFIED SOUNDS

- (1) Amplified sounds from commercial and industrial establishments shall not exceed 3 dBA above background level beyond the property boundary.
- (2) Playing of radios, phonographs or tape recorders on public transportation is prohibited.

E. SIRENS

- (1) Sirens shall be operated only during emergency situations. Maximum permissible sound levels from sirens so operated is 128 dBA 10 feet from the source.
- (2) Civil Defense and disaster warning sirens shall not exceed a signal source strength of 128 dBA at 100 feet. These sirens will be used only as directed by appropriate City officials in emergency situations, for exercise purposes and to test operational capability.

(3) It shall be prohibited for sirens associated with anti-theft or anti-intruder alarm systems to sound for more than fifteen (15) minutes at any single time.

F. COMMERCIAL AIR CONDITIONING AND REFRIGERATION SYSTEMS

Sound levels from commercial air conditioning and refrigeration systems shall not exceed 5 dBA above background at the point of complaint origination.

G. PLACES OF ENTERTAINMENT

All places of entertainment whose noise levels exceed the limits set forth in Table 1 shall keep doors and windows closed during hours of operation.

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SECTION IV. EXCEPTIONS

A. These Regulations shall not apply to:

- (1) The unamplified human voice.
- (2) Aircraft and airport operations.
- (3) Railway locomotives and cars.

SECTION V. MOTOR VEHICLES

A. All motor vehicles shall comply with the Regulations of the Pennsylvania Department of Transportation Title 67, Chapter 450, Established Sound Levels.

B. STREET VENDORS, SOUND TRUCKS AND STANDING COMMERCIAL VEHICLES

Noise from street vendors and sound trucks is prohibited between the hours of 9 PM and 7 AM. This provision may be waived by the Department in extraordinary circumstances.

At other times sound levels from street vendors, sound trucks and standing commercial vehicles shall not exceed the limits set forth in Table 1.

C. HORN BLOWING

No person shall at any time sound the horn or other warning device of a vehicle except when necessary to prevent accidents.

SECTION VI. SEVERABILITY

The provisions of these Regulations are severable and if any provisions, sentence, clause, section or part thereof shall be held illegal, invalid, unconstitutional or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality or inapplicability shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of the ordinance or their application to him or to other persons and circumstances. It is hereby declared to be the legislative intent that these

Regulations would have been adopted if such illegal, invalid or unconstitutional provision, sentence, clause or part had not been included therein, and if the person or circumstances to which the ordinance or any part thereof is inapplicable had not specifically been exempted therefrom.

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TABLE I
 Maximum Permissible Noise
 Levels Above Background
 From Commercial & Industrial Establishments
 Measured At Point of Complaint Origination

<u>Consecutive Time Period</u>	<u>Measured at Residential Site (dBA)</u>	<u>Measured at Commercial or Industrial Site (dBA)</u>
10 minutes	5	10
1 minute	10	15
anytime	15	20

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