



By-law 2017-74

Being a By-law to Regulate Noise in the City of Markham

WHEREAS section 128 of the *Municipal Act, 2001*, S.O. 2001, c. 25 authorizes a local municipality to prohibit and regulate matters that, in the opinion of Council, are or could become public nuisances;

WHEREAS section 129 of the *Municipal Act, 2001*, authorizes municipalities to pass by-laws to prohibit and regulate noise; and,

WHEREAS section 391 of the *Municipal Act, 2001* authorizes Council to pass by-laws imposing fees and charges on any class of persons for services or activities provided or done by or on behalf of it; and,

WHEREAS the people of the City of Markham expect, and have a right to an environment free from excessive sound levels relative to the sound level standards set by this By-law which may degrade the quality and tranquillity of their life, disturb or likely to disturb the people of the City of Markham; and,

WHEREAS Section 398(1) of the *Municipal Act, 2001* states that fees and charges imposed by a municipality on a person constitute a debt of the person to the municipality; and,

WHEREAS Section 429(1) of the *Municipal Act, 2001* provides that a municipality may establish a system of fines for an offence under a by-law passed under the Act; and,

WHEREAS this By-law does not regulate traffic noise;

NOW THEREFORE the Council of the Corporation of the City of Markham enacts as follows:

Definitions

1. In this By-Law,

"Applicant" means any **Person** who applies in writing to **Council** for a permit for an exemption from the provisions and requirements of this By-law;

"Authorized Emergency Vehicle" means any ambulance or hearse, any vehicle of the fire department, or of the local, provincial or federal police, Canada Post, armoured cars carrying cash, and public utility company while actively engaged in the **construction**, maintenance or repair of any **Highway**, or any equipment or facilities thereon, or a snow plough or other maintenance vehicle operated by or for the Ministry of Transportation;

"Certificate" means a current certificate of competency in environmental acoustics technology issued by an agency/firm that delivers full technical acoustics courses based on the MOECC's relevant technical standards as delivered by a Licensed Professional Engineer (P. Eng.) in Ontario, or other courses delivered by the Municipal Law Enforcement Officers Association of Ontario. (MLEO);

"City" means the City of Markham in the Regional Municipality of York;

"Clerk" means the **Clerk** of the Corporation of the **City** of Markham or his or her designate;

"Construction" means erection, alteration, repair, dismantling, demolition, structural maintenance, painting, land clearing, earth moving, grading, excavating, trenching, digging, boring, drilling, blasting or concreting, the installation of machinery or plants, and any work or undertaking in connection with a project but does not include any work or undertaking underground in a mine;

"Construction Equipment" means any equipment or device designed and intended for use in **Construction**, or material handling, including but not limited to, air compressors, pile drivers, pneumatic or hydraulic tools, bulldozers, tractors, excavators, trenchers, cranes, derricks, loaders, scrapers, pavers, generators, off-highway haulers or trucks, ditchers, compactors and rollers, pumps, concrete mixers, graders, or other material handling equipment;

"Conveyance" means a **Motor Vehicle** and any other device used to transport a **person** or persons or goods from place to place but does not include any **Motor Vehicle** or device operated only within any premises;

"Council" means the **Council** of the **City** of Markham;

"Highway" means a common and public highway, street, avenue, parkway, driveway, square, place, bridge, viaduct or trestle designed and intended for or used by, the general public for the passage of vehicles;

"Manager" means the **Manager** of By-law and Regulatory Services or his/her designate;

"Ministry" means the **Ministry** of the Environment and Climate Change;

"Motor Vehicle" means any **Motorized Conveyance** and includes any automobile, motorcycle and any other vehicle propelled or driven otherwise than by muscular power, but does not include the cars of electric or steam railways, or other **Motor Vehicle** running only upon rails, or a motorized snow vehicle, traction engine, farm tractor, self-propelled implement of husbandry or road building machine within the meaning of the *Highway Traffic Act, R.S.O. 1990, c.H.8*, as amended;

"Motorized Conveyance" means a **Conveyance** propelled or driven otherwise than by muscular, gravitational or wind power;

"Noise" means a **Sound** that exceeds the level and/or quality set out in the quantitative provisions of this By-law or contravenes the qualitative provisions of this By-law;

"Officer" means a **Person** commissioned or authorized to fill a public situation or to perform any public duty, appointed for the purpose of enforcing by-laws of the **City**, and includes any municipal law enforcement officer appointed by the **City** and any police constable who is a member of the York Regional Police Service;

"Owner" means the registered **Owner**, **Owner** in trust, a mortgagee in possession, a **Person** who is managing or receiving the rent of the property a lessee or a **Person** who has control of the property and includes a **Person**, firm, partnership, corporation, company, association, or organization of any kind and its principal(s);

"Permit" means any **Permit** issued by **Council** for an exemption from the terms and conditions of this By-law, and includes any conditions imposed by **Council** on the holding of such a **Permit**;

"Person" means a corporation, organization, association and partnership;

"Point of Reception" means any location on a **Noise** sensitive land use where **Noise** from a **Stationary Source** is received. **Noise** sensitive land use may have one or more points of reception;

"Publication" means a specified **Publication** of the **Ministry** named in Schedule 5 to this By-law;

"Residential Area" means an area of the **Municipality** designated as **Residential Area** in the **City** of Markham Zoning By-Laws;

"Sound" means the A- Weighted **sound** pressure level reported in **dB**A;

"Sound Amplifying System" means any system of loudspeakers, amplifiers, microphones or reproducers or any combination of such equipment, including electronic devices or electro-mechanical transducers, used in the reproduction of music, speech or other **Sounds**;

"Sound Reproduction Device" means a device intended primarily for the production or reproduction of **Sound**, including, but not limited to, any musical instrument, radio receiver, television receiver, recorder, phonograph or **Sound Amplifying System**;

"Source" means an activity, matter, thing, or tangible personal property or real property, from which **Sound** or vibration is emitted;

"Stationary Source" means a **Source** of **Sound**, which does not normally move from place to place and includes the premises of a **Person** as one stationary source, unless the dominant **Source** on the premises is a **Source** emitting impulsive **Sound**, a residential air conditioner (or heat pump), residential swimming pool equipment, or **Construction Equipment**;

"Treasurer" means the Treasurer of the **City**.

Technical Terms

2. In this By-law all words and definitions that are of a technical nature are related to **Sound** and shall have the meanings specified for them in Schedule 6 of this By-law – Technical Appendix. .

General Prohibitions

Prohibitions

3. No **Person** shall emit, or cause to permit the emission of **Sound** resulting from:
 - (1) any act listed in Schedule 1 - General Prohibitions, and which **Sound** is clearly audible at a **Point of Reception**;
 - (2) any act listed in Schedule 2 - Prohibitions by Time and Place, if clearly audible at a **Point of Reception**;
 - (3) a **Stationary Source** such that the level of resultant **Sound** is clearly audible at a **Point of Reception** located in a **Residential Area**.

Limitations on Sound Levels

4. No **Person** shall emit, or cause to permit, the emission of **Sound** resulting from:
 - (1) any piece of **Construction Equipment** of a type referred to in Schedule 5, **Publication** NPC-115 at a work site, any part of which is located within 600 metres of a **Residential Area**, unless;
 - a) the equipment was put into use prior to January 1, 1990; or,
 - b) the equipment bears a label affixed by the manufacturer or distributor, which states:
 - (i) the year of manufacture; and,
 - (ii) that the equipment complies with the residential **Sound** emission standards set out in Schedule 5 - **Publication** NPC-115, as applicable to that type of equipment and date of manufacture; or,
 - c) the **Owner**, operator, manufacturer or distributor provides proof that the item of equipment complies with the residential **Sound** emission standard set out in Schedule 5 - **Publication** NPC-115, as applicable to that type of equipment and date of manufacture.

Limitations on Stationary Sources of Sound

5. No **Person** shall emit, or cause to permit, the emission of **sound** resulting from:

- (1) any **Source** that emits time varying **Sound**, including **Quasi-Steady Impulsive Sound**, such that the level from that **Source** at a **Point of Reception** located in a **Residential Area**, when measured with a **Sound Level Meter**, exceeds the higher of, the maximum permitted L_{eq} (1) for the time of day, as prescribed in schedules B-1 and B-2 of Schedule 4 or the established **Background Sound Level**;
- (2) in all cases, any measured and reported **Sound** level (Excluding **Impulsive Sounds**) as defined above in paragraph (1) that is at or below the levels in schedules B-1 and B-2 of Schedule 4 is deemed in compliance with the **City's Sound** level limits;
- (3) in all cases, the necessary adjustments to account for the special quality of the **Sound** shall be applied.

Limitations on Impulsive Sound Levels

6. No **Person** shall emit, or cause to permit the emission of **Sound** (Excluding **Sound** from a **Stationary Source**) resulting from:
 - (1) any **Source** that emits **Impulsive Sound** such that the level from that **Source** at a **Point of Reception** located in a **Residential Area**, when measured with a **Sound Level Meter**, exceeds the higher of, the maximum permitted logarithmic mean **Impulse Sound Level** (L_{LM}) for the time of day, and number of impulses per hour prescribed in schedules B-3 and B-4 of Schedule 4 or the established **Background Sound Level**;
 - (2) in all cases, any measured and reported **Logarithmic Mean Impulse Sound Level** (L_{LM}) that is at, or below, the levels in schedules B-3 and B-4 of Schedule 4 is deemed in compliance with the **City's Sound** level limits.

Limitations on Residential Air-Conditioners

7. No **person** shall emit, or cause to permit, the emission of **Sound** where:
 - (1) the maximum applicable **Sound** level from such **source** at a **Point of Reception** located in a **Residential Area**, when measured with a **Sound Level Meter**, is the higher of L_{eq} (1), 50 dBA during the day, evening, and night, or the established **Background Sound Level** for the corresponding period;
 - (2) for the purposes of this By- Law, residential air conditioner is defined to include equipment used in a heating and/or cooling apparatus used in single family detached dwellings, semi-detached dwellings, townhouses, and "free-hold" townhouses for individual homeowner's use;
 - (3) other heating or cooling apparatuses intended for use by more than one household, such as those associated with stacked townhouses, apartment buildings, and group homes, are to be collectively considered as a single **Stationary Source** of **Sound**.

Limitations on Residential Swimming Pool Equipment

8. No **Person** shall emit, or cause to permit, the emission of **Sound** where:
 - (1) the maximum applicable **Sound** level from such **Source** at a **Point of Reception** located in a **Residential Area**, when measured with a **Sound Level Meter**, is the higher of L_{eq} (1), 50 dBA during the day, evening, and night, or the established **Background Sound Level** for the corresponding period;
 - (2) for the purposes of this By- Law, residential pool equipment is defined to include electric motors, heating system, filtration system, and all other equipment associated with maintaining a residential swimming pool;

- (3) other swimming pool equipment intended for communal use by more than one household, such as those associated with stacked townhouses, apartment buildings, and group homes, are to be considered a **Stationary Source of Sound**;
 - (4) in all cases, the necessary adjustments to account for the special quality of the **Sound** shall be applied.
9. Where subsections 3(2) or (3) applies to a **Source of Sound**, the less restrictive provision shall prevail.

Permits and Exemptions

10. Notwithstanding any other provision of this By-law, the provisions and requirements of this By-law shall not apply to any **Person** who emits, or causes to permit the emission of **Sound**:
- (1) in connection with any activities listed in Schedule 3; or,
 - (2) due to **Impulsive Sound** or blasting; or,
 - (3) for which a **Permit** has been issued under the authority of this By-law.
11. Exemptions to this by-law may be granted by making a written request to the **Clerk** outlining the particulars of and the reason(s) for the exemption and shall be accompanied by the required exemption request fee.
12. The **Clerk** is authorized to grant exemptions to the Noise By-law upon review of the request for the prohibitions listed below, with all other requests to be forwarded to **Council**, along with a report by the **Manager**, for approval.

Schedule	Prohibition	Maximum Exemption
2	The detonation of fireworks	Midnight
2	The operation of any electronic device for amplified noise	Midnight
2	Yelling, shouting, hooting, whistling or singing	None
2	Noise in connection with Construction	None

13. In deciding to grant an exemption, **Council** or the **Manager** may include any terms or conditions with the exemption.
14. A report shall be taken to **Council**, which shall include the completed application and a recommendation as to terms and conditions, if any.
15. In deciding whether to grant the exemption, **Council** shall consider the application, the report of the **Manager** and/or any **Officer** or professional staff and any written submission then received by **Council** and shall give the **Applicant** and any **Person** interested in the application an opportunity to be heard and may consider such other matters as it sees fit.
16. Where an application is not approved, or approved upon terms and conditions, or approval to a lesser extent than the exemption applied for, **Council** shall set out in writing the reasons therefore and shall serve a copy of the decision upon the **Applicant**.
17. The decision of **Council** to issue an exemption, to refuse to issue an exemption, or to set terms and conditions for an exemption, is final.
18. A breach by the **Applicant** of any of the terms or conditions imposed by **Council** in granting an exemption shall immediately render the exemption null and void.

Severability

19. If a court of competent jurisdiction declares any section or part of this By-law invalid or unenforceable, it is the intention of **Council** that the remainder of the By-law shall continue to be in force.

Enforcement and Administration

20. The **Clerk** shall administer and enforce this By-Law.
21. **Council** may appoint such **Officers** as are necessary for the purpose of enforcing this By-law.
22. Such **Officers** as are necessary for the purpose of enforcing this By-law who do not possess a **Certificate** shall only enforce the portions of this By-law where **Sound** level measurements are not required.
23. No **Person** shall hinder or obstruct, or attempt to hinder or obstruct, any **Officer** or **Person** who is exercising a power or performing a duty under this By-law.
24. **Officers** and **Persons** under their direction may at any reasonable time enter onto any lands within the **City** to determine if the provisions of this By-law are being complied with or may enter onto any lands within the **City** to carry out the remedial actions required to bring the property into conformity with the By-law.
25. **Officers** are empowered for the purposes of inspection to determine compliance with the By-law to:
 - (1) require the production for inspection of documents or things relevant to the inspection, including the removal of the documents for the purposes of making copies or extracts; and,
 - (2) make examinations or take tests, samples or photographs necessary for the purposes of inspection alone, or in conjunction with, a **Person** possessing special or expert knowledge; and,
 - (3) require information from any **Person** concerning a matter related to the inspection.

Offence Clause

26. Every **Person** who commits one or more of the following is guilty of an offence and is liable upon conviction to a maximum fine as set out in this By-law:
 - (1) contravenes any of the provisions of this By-law; or,
 - (2) fails to comply with an Order issued under this By-law; or,
 - (3) fails to comply with any condition of an Order under this By-law; or,
 - (4) obstructs or attempts to obstruct an **Officer** or an employee or agent of the **City** in carrying out his or her duties under this By-law.

Rebuttal Presumption

27. An **Owner** of a property where the **Noise** is being emitted from shall be presumed to have permitted, or caused to be permitted, the **Noise** under this By-law, as the case may be, which presumption may be rebutted by evidence to the contrary on a balance of probabilities.

Penalties

28. Every **Person** who is guilty of an offence under this By-law, and upon conviction shall be subject to the following penalties as established pursuant to the *Municipal Act, 2001*:
 - (1) Upon first conviction, a fine of not less than Five Hundred Dollars (\$500.00) and not more than Fifty Thousand Dollars (\$50,000.00);
 - (2) Upon a second, or subsequent conviction for the same offence, a fine of not less than One Thousand Dollars (\$1,000.00) and not more than One Hundred Thousand Dollars (\$100,000.00);
 - (3) Upon conviction for a continuing offence, a fine of not less than Five Hundred Dollars (\$500.00) and not more than Ten Thousand Dollars (\$10,000.00).

29. Every **Person** who contravenes any of the provisions of this By-law is guilty of an offence and pursuant to section 429(2)(a) of *the Municipal Act, 2001, S.O. 2001, c 25*, as amended, all contraventions of this By-law are designated as continuing offences.
- (1) Every **Person** who is convicted of an offence is liable to a maximum fine of \$25,000 for a first offence and a maximum fine of \$50,000 for a subsequent offence;
 - (2) Every corporation who is convicted of an offence is liable to a maximum fine of \$50,000 for a first offence and a maximum fine of \$100,000 for a subsequent offence;
 - (3) In addition to the fine amounts set out in (1) and (2), for each day or part of a day that an offence continues, the maximum fine shall be \$10,000. The total of all daily fines for the offence is not limited to \$100,000”.

Collection of Unpaid Fines

30. Pursuant to subsection 441.1 of the *Municipal Act, 2001*, the **Treasurer** of the **City** may add any part of a fine for a commission of a provincial offence that is in default under section 69 of the *Provincial Offences Act* to the tax roll for any property in the **City** which all of the **Owners** are responsible for.

Interpretation

31. Any use of a singular term includes its plural, any use of a masculine term includes the feminine term and any use of the present tense includes the past tense, where applicable, in this By-law.

Enactment

32. This By-law comes into force and effect on the date of its passing and enactment.
33. By-law 2003-137, a By-law to Control Noise, is hereby repealed in its entirety.

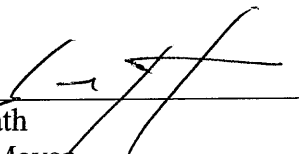
Title

34. This By-law shall be referred to as the “Noise Control By-law”.

Read a first, second, and third time and passed on June 27, 2017.



Kimberley Kitteringham
City Clerk



Jack Heath
Deputy Mayor

Schedule 1
GENERAL PROHIBITIONS

1. Racing of any **Motorized Conveyance** other than in a racing event regulated by law.
2. The operation of a **Motor Vehicle** in such a way that the tires squeal.
3. The operation of any combustion engine without an effective exhaust-muffling device in good working order and in constant operation.
4. The operation of a vehicle or a vehicle with a trailer resulting in banging, clanking, squealing or other like **Sounds** due to improperly secured load or equipment;
5. The operation of an engine or motor in, or on, any **Motor Vehicle** or item of attached auxiliary equipment for a continuous period exceeding three minutes, while such vehicle is stationary in a **Residential Area** or, unless,
 - (1) The vehicle is in an enclosed structure constructed so as to effectively prevent excessive **Noise** emission; or,
 - (2) The original equipment manufacturer specifically recommends a longer idling period for normal and efficient operation of the **Motor Vehicle** in which case such recommended period shall not be exceeded; or,
 - (3) Operation of such engine or motor is essential to a basic function of the vehicle or equipment, including but not limited to, operation of ready mixed concrete trucks, lift platforms or refuse compactors and heat exchange systems; or,
 - (4) Weather conditions justify the use of heating or refrigerating systems powered by the motor or engine for the safety and welfare of the operator, passengers or animals, or preservation of perishable cargo; or,
 - (5) Prevailing low temperatures make longer idling periods necessary, immediately after starting the motor or engine; or,
 - (6) The idling is for the purpose of cleaning and flushing the radiator and associated circulation system for seasonal change or antifreeze, cleaning of the fuel system, carburetor or the like, when such work is performed other than for profit.
6. The operation of a **Motor Vehicle** horn or other warning device except where required or authorized by law in accordance with good safety practices.
7. The operation of any item of **Construction Equipment** without effective muffling devices in good working order and in constant operation.
8. The detonation of fireworks or explosive devices not used in **Construction**.
9. The discharge of firearms unless permitted pursuant to the City's Discharge of Firearms By-law.
10. The operation of combustion engine which,
 - (i) Is; or,
 - (ii) is used in; or,
 - (iii) is intended for use in a toy or a model or replica device, which model or replica has no function other than amusement and which is not a **Conveyance**.

Schedule 2
PROHIBITIONS BY TIME AND PLACE

Noise Source	Prohibited Times
1. The operation of any electronic device or group of connected electronic devices incorporating one or more loudspeakers or other electro-mechanical transducers or other like devices and intended for the production, reproduction or amplification of sound.	5:00 PM one day to 7:00 AM the next day Friday and Saturdays 11:00 PM one day to 7:00 AM the next day (9:00 AM Sundays)
2. The operation of any auditory signaling device, including but not limited to the ringing of bells or gongs, and the blowing of horns or sirens or whistles, or the production, reproduction or amplification of, any similar sounds by electronic means, except where required or authorized by law or in accordance with good safety practices.	All day Sundays & Statutory Holidays, 7:00 PM one day to 7:00 AM the next day
3. The operation of any powered rail car including, but not limited to, refrigeration cars, locomotives or self-propelled passenger cars, while stationary on property not owned or controlled by a railway governed by the Canada Railway Act.	7:00 PM one day to 7:00 AM the next day (9:00 AM Sundays)
4. The operation of any motorized conveyance other than on a highway or other place intended for its operation.* *Note: For the purpose of this Schedule, “ motorized conveyance ” includes, but is not limited to: a) Snowmobile; b) Moped; c) Go-cart; d) Track bike; and, e) Trail bike.	At all Times
5. The venting, release or pressure relief of air, steam or other gaseous material, product or compound from any autoclave, boiler pressure vessel, pipe, valve, machine, device or system.	11:00 PM one day to 7:00 AM the next day (9:00 AM Sundays)
6. The operation of a power assisted hang glider or parafoil	All day Sundays & Statutory Holidays 7:00 PM one day to 7:00 AM the next day
7. All selling or advertising by shouting or outcry or amplified sound .	All day Sundays & Statutory Holidays 7:00 PM one day to 7:00 AM the next day
8. Loading, unloading, delivering, packing, unpacking, or otherwise handling any containers, products, materials, or refuse, whatsoever, unless necessary for the maintenance of essential services or the moving of private household effects.	All day Sundays & Statutory Holidays 7:00 PM one day to 7:00 AM the next day
9. The operation of any equipment in connection with construction .	All day Sundays & Statutory Holidays 7:00 PM one day to 7:00 AM the next day (Friday from 7:00 PM to 9:00 AM Saturday and after 5 PM on Saturday)
10. The operation or use of any tool for domestic purpose other than snow removal	7:00 PM one day to 7:00 AM the next day (9:00 AM Sundays)
11. The operation of solid waste bulk lifts or refuse compacting equipment.	7:00 PM one day to 7:00 AM the next day (9:00 AM Sundays)
12. The operation of a commercial car wash of type other than referred to in item 10.	11:00 PM one day to 7:00 AM the next day (9:00 AM Sundays)
13. The operation of sound emitting pest control device	At all Times
14. Yelling, shouting, hooting, whistling, singing, or unamplified playing of musical instruments or similar activity	11:00 PM one day to 7:00 AM the next day (9:00 AM Sundays)

Schedule 3
EXEMPTIONS

1. Operation of **Authorized Emergency Vehicles**.
2. Operation of bells utilized as traffic control devices including the following:
 - (1) Bells and other devices at traffic signal locations;
 - (2) Bells at railway crossings.
3. Operation of **City** machines and equipment including the following:
 - (1) Crosswalk painting machines;
 - (2) Catch basin cleaners;
 - (3) Tree and shrub pruning and mulching equipment;
 - (4) **City** owned or contracted street cleaners and flushers;
 - (5) Operation of **Construction Equipment** and machinery, including snow removal equipment, by or on behalf of the **City** carrying on or engaged in the performance of public works for emergency and safety purposes.
4. Any noise that is related to; associated with, or is an integral part of, religious worship practices, including but not limited to, chanting, bell ringing or other similar activity.

Schedule 4
LIMITATIONS ON STATIONARY SOURCES OF SOUND AND
IMPULSIVE SOUND LEVELS

Schedule B-1 Exclusion Limit values of One-Hour Equivalent Sound Level for Outdoor Points of Reception	
Time of Day	L _{eq} (1), dBA
7:00 AM – 7:00 PM	50
7:00 PM – 11:00 PM	50

Schedule B-2 Exclusion Limit values of One-Hour Equivalent Sound Level for Plane of Window of Noise Sensitive Spaces	
Time of Day	L _{eq} (1), dBA
7:00 AM – 7:00 PM	50
7:00 PM – 11:00 PM	50
11:00 PM – 7:00 AM	45

Schedule B-3 Exclusion Limit values for Impulsive Sound Level for Outdoor Points of Reception		
Time of Day	Actual Number of Impulses in One- Hour Time Period	L _{LM} , dBAI
7:00 AM – 11:00 PM	9 or more	50
7:00 AM – 11:00 PM	7 to 8	55
7:00 AM – 11:00 PM	5 to 6	60
7:00 AM – 11:00 PM	4	65
7:00 AM – 11:00 PM	3	70
7:00 AM – 11:00 PM	2	75
7:00 AM – 11:00 PM	1	80

Schedule B-4 Exclusion Limit values for Impulsive Sound Level for Plane of Window – Noise Sensitive Spaces (Day/Night)	
Actual Number of Impulses in One-Hour Time Period	Residential (07:00-23:00)/ (23:00-07:00), L _{LM} , dBAI
9 or more	50/45
7 to 8	55/50
5 to 6	60/55
4	65/60
3	70/65
2	75/70
1	80/75

Schedule 5
INDEX OF PUBLICATIONS

Publication NPC 101 Technical Definitions
Publication NPC 102 Instrumentation
Publication NPC 103 Procedures
Publication NPC 104 Sound Level Adjustments
Publication NPC 115 Construction Equipment
Publication NPC 117 Domestic Outdoor Power Tools
Publication NPC 118 Motorized Conveyances
Publication NPC 119 Blasting
Publication NPC 205 Stationary Source
Publication NPC 206 Road Traffic
Publication NPC 216 Residential Air Conditioners

Schedule 6 Technical Appendix

In this By-Law,

"Background Sound Level" means the **Sound** level that is present in the environment produced by **Noise Sources** other than the **Source** under investigation, usually caused by road traffic and/or **stationary sources** that have received formal municipal or provincial approvals (Short duration **Noise** caused by **Sources** other than the **source** under investigation, such as an aircraft fly-over or a train pass-by, are to be excluded from the determination of the **Background Sound Level**). For the purposes of this By-Law, the **Background Sound Level** is expressed in terms of the One-Hour Equivalent Sound Level denoted L_{eq} (1) (Reference shall also be made to the definition of **"Exclusion Limits"**);

"dBA" means the A-weighting sound pressure level in decibels;

"dBAI" means the A-weighted sound pressure level (or the **Impulse Sound Level**) of an **Impulsive Sound** measured with a **Sound Level Meter** set to "impulse" response;

"Exclusion Limits" are the lowest values of the **Sound** level limit at a specific **Point of Reception** for the **Stationary Source** under investigation, i.e., the **Sound** level limit when the **Background Sound Level** is below this exclusion limit. (In general, **noise** investigations rely on the established **Background Sound Level** as being the applicable **Sound** level limit, unless the **Background Sound Level** is lower than that of the **"Exclusion Limits"**.) The **Exclusion Limits** are given in Schedule B-1, B-2, B-3, B-4;

"Impulsive Sound" is a single pressure pulse or a single burst of pressure pulses, as defined by IEC and other national/international standards;

"Impulse Sound Level" is the **Sound** level of an **Impulsive Sound** as measured with an **Impulse Sound Level Meter** set to impulse response. It is measured in A-weighted decibels, denoted as **dBAI**;

"Leq" means the A-weighted **Sound** level of a steady **Sound** carrying the same total energy in the time period T as the observed fluctuating **Sound**. The time period T is given in hours;

"L_{LM}" is the Logarithmic Mean **Impulse Sound Level** in **dBA** obtained by measurements and/or calculations for the specified/applicable time period;

"Logarithmic Mean Impulse Sound Level" is a **Sound** level for reporting multiple impulse sound levels and denoted **L_{LM}**, and obtained by taking measurements and/or calculations in **dBAI** as measured using an **Impulse Sound Level Meter** for a specified/applicable time period;

"Quasi-Steady Impulsive Sound" is a sequence of **impulsive sounds** emitted from the same **source**, having a time interval of less than half a second between successive **impulsive sounds** (examples include, but not limited to pavement breakers, riveting machines, powered impact wrenches);

"Sound Level Meter" Means any device/meter that is used for measuring impulsive, quasi-steady impulsive or buzzing **Sounds**, a **Sound Level Meter** Type 1 (or Class 1) conforming to the applicable IEC, ANSI and ISO international standards shall be used, or for measuring other General **Sounds** a **Sound Level Meter** minimum Type 2 (or Class 2) conforming to the applicable IEC, ANSI and ISO international standards shall be used;

"Special Quality of Sound Adjustment" is a penalty that is to be added to a **Sound** which can be distinctly identified through the sensation of a pitch/tone(s), in accordance with **Publication NPC-104**.