Rulemaking Addendum to the
Order of the Board
R18-19 (Rulemaking – Noise)
Noise Rule Update: Amendments to 35 Ill. Adm. Code Parts 900, 901, 902, and 910

Adopted Rule. Final Order.

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE H: NOISE
CHAPTER I: POLLUTION CONTROL BOARD

PART 900
GENERAL PROVISIONS

Section
900.101 Definitions
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900.APPENDIX A Old Rule Numbers Referenced (Repealed)

AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/25 and 27].

SOURCE: Originally filed as Part 1 of Chapter 8: Noise Pollution, effective August 10, 1973; amended at 2 Ill. Reg.-27, p. 223, effective June 26, 1978; amended at 5 Ill. Reg. 6371, effective June 1, 1981; amended at 5 Ill. Reg. 8533, effective August 10, 1981; amended at 6 Ill. Reg. 10960, effective September 1, 1982; codified at 7 Ill. Reg. 13579; amended in R83-7 at 11 Ill. Reg. 3121, effective January 28, 1987; amended in R03-8 at 27 Ill. Reg. 16247, effective October 8, 2003; amended in R18-19 at 42 Ill. Reg. _____, effective _____.

Section 900.101 Definitions

Except as stated and unless a different meaning of a term is clear from its context, the definitions of terms used in this Chapter are the same as those used in the Environmental Protection Act. All definitions of acoustical terminology not specifically defined in this Chapter will have meanings ascribed in ~~must be in conformance with those contained in American National Standards Institute (~~ANSI/ASA~~)~~ S1.1 – 2013~~1994 (R1999)~~ "~~American National Standard~~ Acoustical Terminology" and S12.9- 2013/Part 1 ~~1988 (R1998)~~ "~~American National Standard~~ Quantities and Procedures for Description and Measurement of Environmental Sound - Part 1: Basic Quantities and Definitions~~;~~", incorporated by reference at Section 900.106. As used in 35 Ill. Adm. Code 900 through 910, the following terms mean:

"A-~~W~~weighted ~~S~~sound ~~L~~level": 10 times the logarithm to the base 10 of the square of the ratio of the A-weighted (and time-averaged) sound pressure, to the reference sound pressure of 20 ~~micropascal~~micropascals. The frequency and time weighting must be specified in ~~accordance~~compliance with ANSI/ASA S1.4~~–~~2014/Part 1/IEC 61672:1-2013~~1983 (R2001)~~ "American National Standard Electroacoustics ~~Specification for~~ Sound Level Meters - Part 1: Specifications (a nationally adopted international standard)~~,~~", incorporated by reference at Section 900.106. The unit of sound level is the decibel (dB) with the letter (A) appended to the decibel unit symbol to indicate the frequency weighting and written as dB(A).

"Ambient": the all-encompassing sound associated with a given environment without contributions from the noise source or sources of interest.

"Angle of incidence": the orientation of the microphone relative to the sound source.

"ANSI": American National Standards Institute or its successor ~~bodies~~.

"Antique vehicle": a motor vehicle that is more than 25 years old~~of age,~~ or its~~a~~ bona fide replica~~,~~ ~~thereof,~~ and which is driven on the highways only going to and returning from an antique auto show or an exhibition, or for servicing or demonstration, or a fire-fighting vehicle that is more than 20 years old which is not used as ~~a~~ fire-fighting equipment but is used only for ~~the purpose of~~ exhibition or demonstration.

"ASA": Acoustical Society of America.

"Background ambient sound level": ~~means~~ the ambient sound level, measured in ~~accordance~~ compliance with the procedures specified in 35 Ill. Adm. Code 910.

"Bus": ~~every~~ a motor vehicle designed for carrying more than 10 passengers and used for the transportation of passengers; and ~~every~~ any motor vehicle, other than a taxicab, designed and used for the transportation of persons for compensation.

"C-weighted sound level": in decibels, a frequency-weighted sound pressure level, determined ~~by the use of~~ using the metering characteristics and C-weighted network specified in ANSI/ASA S1.4-2014/Part 1/IEC 61672:1-2013 ~~1983 (R2001)~~ "American National Standard Electroacoustics ~~Specification for~~ Sound Level Meters – Part 1: Specifications (a nationally adopted international standard)~~,~~", incorporated by reference at Section 900.106.

"Common carrier by motor vehicle": any person holding itself out to the general public to provide, for compensation, transportation of passengers or property in interstate or foreign commerce by motor vehicle, whether over regular or irregular routes.

"Construction": on-site erection, fabrication, installation, alteration, demolition or removal of any structure, facility, or its addition ~~thereto~~, including all related activities

~~including, but not restricted to~~, such as clearing of land, earth-moving, blasting and landscaping.

"Contract carrier by motor vehicle": any person, other than "common carrier by motor vehicle", who provides, for compensation, transportation of passengers or property in interstate or foreign commerce by motor vehicle under contracts with one person or a limited number of persons, either:

to provide transportation services through the assignment of motor vehicles to the exclusive use of a served person for a specific period of time: or

to provide transportation services designed to meet a distinct need of an individual customer.

"Daytime hours": 7:00 am to 10:00 pm, local time.

"dB(A)": A-weighted decibels (see the definition of "A-weighted sound level ~~in decibles.~~").

"Dealer": ~~every~~any person engaged in the business of selling vehicles to persons who purchase ~~such~~these vehicles for purposes other than resale, and who has an established place of business for such activity in this ~~state~~ State.

"Decibel" or "~~(~~dB~~)~~": a unit of measure, on a logarithmic scale to the base 10, of the ratio of ~~the magnitude of~~ a ~~particular~~ sound pressure magnitude to a standard reference pressure, which, for purposes of this Chapter, ~~shall be~~ is 20 micronewtons per square meter ($\mu N/m^2$) or 20 micropascals (μPa).

"Discrete tone": a sound ~~wave~~ whose instantaneous sound pressure varies essentially as a simple sinusoidal function of time.

"Exhaust system": the system comprised of a combination of components which provides for the enclosed flow of exhaust gas from engine parts to the atmosphere.

"Existing property~~-line-noise-source~~line noise source": any property~~-line-noise-source~~line noise source, the construction or establishment of which commenced prior to August 10, 1973~~. For the purposes of this sub-section~~, excluding any property~~-line-noise-source~~line noise source whose A, B or C land use classification changes~~,~~ on or after August 10, 1973~~, is not considered an existing property-line-noise-source~~.

"Farm tractor": a ~~every~~ motor vehicle designed and used primarily as a farm implement for drawing wagons, plows, mowing machines and other implements of husbandry, and any self-propelled ~~every~~ implement of husbandry ~~which is self-propelled~~.

"Fast ~~D~~ddynamic ~~C~~ccharacteristic": the dynamic characteristic specified as fast in ANSI/ASA S1.4-2014/Part 1/IEC 61672:1-2013~~1983 (R-2001)~~ "American National

Standard Electroacoustics~~Specification for~~ Sound Level Meters – Part 1: Specifications (a nationally adopted international standard)~~,~~", incorporated by reference at Section 900.106.

"Fast meter response": as specified in ANSI/ASA~~,~~ S1.4–2014/Part 1/IEC 61672:1-2013 ~~1983 (R2001)~~ "American National Standard Electroacoustics~~Specification for~~ Sound Level Meters – Part 1: Specifications (a nationally adopted international standard)~~,~~", incorporated by reference at Section 900.106.

"Fluctuating sound": a class of non-steady~~nonsteady~~ sound where sound pressure level varies over a range greater than 6 decibels (dB) with the "slow" meter characteristic, and where the meter indication does not equal the ambient level more than once during the period of observation.

"Frequency-weighted sound pressure": root mean square of the instantaneous sound pressure which is frequency-weighted (i.e., filtered) with a standard frequency characteristic (e.g., A or C) and exponentially time-weighted in ~~accordance~~compliance with the standardized characteristics slow (S), fast (F), impulse (I) or peak, with both weightings specified in ~~accordance~~compliance with ANSI S1.4–2014/Part 1/IEC 61672:1-2013~~1983 (R2001)~~ "American National Standard Electroacoustics~~Specification for~~ Sound Level Meters – Part 1: Specifications (a nationally adopted international standard)~~,~~", incorporated by reference at Section 900.106. The frequency weighting used ~~shall~~must be specified explicitly (e.g., A, C or octave band). The unit frequency-weighted sound pressure is the pascal (Pa).

"Gross combination weight rating": the value specified by the manufacturer as the loaded weight of a combination vehicle.

"Gross ~~V~~vehicle ~~W~~weight" or "~~(~~GVW~~)~~": the maximum loaded weight for which a motor vehicle is registered, or, for vehicles not so registered, the value specified by the manufacturer as the loaded weight of the vehicle.

"Gross vehicle weight rating" or "GVWR": the value specified by the manufacturer as the loaded weight of a single vehicle.

"Highly ~~I~~impulsive ~~S~~sound": either a single pressure peak or a single burst (multiple pressure peaks) for a duration usually less than one second. Examples of highly impulsive sound sources are drop forge hammer and explosive blasting.

"Highway": the entire width between the boundary lines of every way publicly maintained when any part of it ~~thereof~~ is open to ~~the use of the~~ public use ~~for purposes of~~ vehicular travel.

"IEC": International Electrotechnical Commission.

"IHRA": International Hot Rod Association or its successor body.

"Intermittent sound": a class of non-steady~~nonsteady~~ sound where the meter indicates a sound pressure level equal to the ambient level two or more times during the measurement period. The period ~~of time~~ during which the ~~level of the~~ sound level value remains ~~at a value~~ different from ~~that of~~ the ambient ~~is of the order of~~ for at least one second ~~or more~~.

"LBCS": the Land-Based Classification Standards which designate land~~,~~ use functions by ~~means of~~ numeric codes.

"L_{eq}": equivalent continuous sound pressure level in decibels: 10 times the logarithm to the base 10 of the ratio of a time mean square sound pressure, during the specified time period, to the square of reference sound pressure. The reference sound pressure is 20 micronewtons per square meter or equivalent continuous frequency-weighted sound pressure.

"L_{eq} (A)": A-weighted time-average (equivalent-continuous) sound pressure level.

"L_{eq} (octave band-Hz)": time-average (equivalent-continuous) sound pressure level in the octave band specified by its center frequency (e.g. L_{eq} (125-Hz)).

"Measurement ~~P~~period": the time interval during which acoustical data are obtained. The measurement period is determined by the characteristics of the noise being measured and must be at least ten times as long as the response time of the instrumentation. The greater the variation in indicated sound level, the longer must be the observation time for a given expected precision of the measurement.

"Motor carrier": a common carrier by motor vehicle, a contract carrier by motor vehicle, or a private carrier of property by motor vehicle. The term "motor carrier" includes those persons that own and operate the subject motor vehicles, but not their drivers, unless the drivers both own and drive their own vehicles.

"Motor driven cycle": ~~every~~ a motorcycle, motor scooter, or bicycle with motor attached, with less than 150 cubic centimeter piston displacement.

"Motor vehicle": a self-propelled ~~every~~ vehicle ~~which is self-propelled~~ and any combination of vehicles ~~which are~~ propelled or drawn by a self-propelled vehicle ~~which is self-propelled~~.

"Motorcycle": a ~~every~~ motor vehicle with ~~having~~ a seat or saddle for ~~the use of~~ the rider and designed to travel on ~~not more than~~ up to 3 wheels in contact with the ground, but excluding a tractor.

"Muffler": a device for abating the sounds of escaping gases of an internal combustion engine.

"New snowmobile": a snowmobile, the equitable or legal title to which has ~~never~~ passed exclusively to ~~a person~~ persons ~~who purchases~~ purchasing it for ~~purposes other than~~ resale only.

"Nighttime hours": 10:00 pm to 7:00 am, local time.

"Noise floor": the electrical noise (in decibels) of the sound measurement system. When the noise floor is determined by placing a calibrator over the microphone of the sound measurement system, the noise floor may include acoustic noise due to leakage around the calibrator.

"Noise pollution": the emission of sound that unreasonably interferes with the enjoyment of life or with any lawful business or activity.

"Non-steady sound": a sound whose sound pressure level shifts significantly during the measurement period~~.~~ with meter ~~Meter~~ variations ~~are~~ greater than ~~+/-~~ ± 3 dB using the "slow" meter characteristic.

"Octave band sound pressure level": the sound pressure level for the measured sound ~~being measured~~ contained within the specified octave band. The reference pressure is 20 micronewtons per square meter ($\mu N/m^2$) or 20 micropascals (μPa).

"Open site": an area that is essentially free of large sound-reflecting objects, such as barriers, walls, board fences, signboards, parked vehicles, bridges or buildings.

"Pascal" or "~~(~~Pa~~)~~": a unit of pressure. One pascal is equal to one newton per square meter.

"Passenger car": a motor vehicle designed to carry ~~for the carrying of not more than ten~~ up to 10 persons, including a multi-purpose passenger vehicle, except any motor vehicle of the second division as defined in 625 ILCS 5/1-146, and except any motorcycle or motor driven cycle.

"Person": any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this State, any other ~~S~~state or a political subdivision or agency ~~thereof~~ of that state or any legal successor, representative, agent or agency of the foregoing.

"Preferred frequencies": ~~those~~ frequencies in Hertz preferred for acoustical measurements which, for the purposes of this Chapter, consist of the following set of values: 20, 25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10,000, 12,500.

"Private carrier of property by motor vehicle": any person, other than "common carrier by motor vehicle" or "contract carrier by motor vehicle", who transports in interstate or foreign commerce by motor vehicle any property owned, leased, or bailed by that person.

"Prominent discrete tone": a sound~~, having a~~ with 1/3~~one-third~~ octave band sound pressure level that~~which~~, when measured ~~in a one-third octave band~~ at a~~the~~ preferred frequency ~~frequencies~~, exceeds, by any of the following values, the arithmetic average of the sound pressure levels of ~~the two~~ both adjacent 1/3~~one-third~~ octave bands ~~on either side of such one-third octave band by~~:

A value of 5 dB or more for a ~~such~~ 1/3~~one-third~~ octave band with a center frequency from 500 Hertz to 10,000 Hertz, inclusive~~. Provided: such~~, but only if that 1/3~~one-third~~ octave band sound pressure level also exceeds the sound pressure level of each adjacent 1/3~~one-third~~ octave band~~, or~~;

A value of 8 dB or more for a ~~such~~ 1/3~~one-third~~ band with a center frequency from 160 Hertz to 400 Hertz, inclusive~~. Provided: such~~, but only if that 1/3~~one-third~~ octave band sound pressure level also exceeds the sound pressure level of each adjacent 1/3~~one-third~~ octave band;~~,~~or~~;~~

A value of 15 dB or more for a ~~such~~ 1/3~~one-third~~ octave band with a center frequency from 25 Hertz to 125 Hertz, inclusive~~. Provided: such~~, but only if that 1/3~~one-third~~ octave band sound pressure level also exceeds the sound pressure level of each adjacent 1/3~~one-third~~ octave band.

BOARD NOTE: A sound measured at a preferred frequency of 400 Hz, for example, would be a prominent discrete tone only if its 1/3 octave band sound pressure level (1) exceeds the 1/3 octave band sound pressure level of 315 Hz; (2) exceeds the 1/3 octave band sound pressure level of 500 Hz; and (3) exceeds by 8 dB or more the arithmetic average of the 1/3 octave band sound pressure levels of 315 Hz and 500 Hz.

"Property~~-line-noise-source~~line noise source": any equipment or facility, or a~~their~~ combination of equipment and facility ~~thereof~~, that~~which~~ operates within any land used as specified by 35 Ill. Adm. Code 901.101. The~~Such~~ equipment or facility, or ~~the~~ combination of equipment and facility ~~thereof~~, must be capable of emitting sound beyond the property line of the land on which it is operated.

"Quasi-steady sound": a train of two or more acoustical impulses. Examples of quasi-steady sound are that from riveting and pneumatic hammer.

"Reflective surface": any building, hillside, or similar object (other than the flat ground surface) that reflects sufficient sound to affect the sound pressure level readings obtained from a noise source~~. Not included as reflective surfaces are~~, excluding small objects such as trees, posts, chain-linked fences, fire hydrants, vegetation (such as bushes and shrubs), or any similar object.

"Registered": a vehicle is registered when a current registration certificate or certificates and registration plates have been issued for it under the laws of any state pertaining to the registration of vehicles.

"Residential dwelling unit": all land used as specified by the Land-Based Classification Standards (LBCS) Codes 1100 through 1340; and those portions of land used as specified by LBCS Code 6222 that are used for sleeping (see 35 Ill. Adm. Code 901.Appendix B).

"SAE": Society of Automotive Engineers.

"Slow ~~D~~ddynamic ~~C~~ccharacteristic": the dynamic characteristic specified as "Slow" in ANSI/ASA S1.4–2014 ~~1983 (R2001)~~ "American National Standard Specification for Sound Level Meters – Part 1~~,~~", incorporated by reference at Section 900.-106.

"Snowmobile": a self-propelled device designed for travel on snow or ice or natural terrain steered by skis or runners, and supported in part by skis, belts, or cleats.

"Sound": a physical disturbance causing an oscillation in pressure in a medium (e.g., air) that is capable of being detected by the human ear or a sound measuring instrument.

"Sound exposure" or "~~(~~SE~~)~~": time integral of squared, frequency-weighted instantaneous sound pressure over a given time interval. The time period of integration must be specified if: ~~when~~ the sound exposure of the background noise is a significant contributor to the total sound exposure; ~~or when~~ the threshold sound level of the instrument (a level below which the instrument does not accumulate contributions to the integral) used is above the level of the background noise; ~~or when~~ such data is needed to identify a source; or ~~when~~ the time period of integration is otherwise useful. The customary unit for sound exposure is pascal-squared second (Pa^2-s).

"Sound exposure level" or "~~(~~SEL" or "L_{eT}~~)~~": 10 times the logarithm to the base 10 of the ratio of sound exposure to the reference sound exposure (E_o) of 400 micropascal-squared seconds (μPa^2-s). For a given measurement time period of T seconds, the sound exposure level (L_{eT}) is related to the time-average sound level (L_{pT}) as follows: $L_{eT} = L_{pT} + \log (T/t_o)$ where t_o is the reference duration of 1 second. The time period of integration~~intergration~~ (T) must be specified. The frequency weighting used must be specified explicitly (e.g., A, C or octave band). The A-weighted SEL and C-weighted SEL are abbreviated ASEL and CSEL respectively. An octave band SEL is expressed in terms of the center frequency (e.g., SEL at 125-Hz). The unit for sound exposure level is decibel (dB).

"Sound level" or "~~(~~weighted sound pressure level~~)~~": 20 times the logarithm to the base 10 of the ratio of the frequency-weighted (and time-averaged) sound pressure to the reference pressure of 20 micropascals. The frequency weighting used ~~shall~~must be specified explicitly (e.g., A, C or octave band). The unit for sound level is decibel (dB).

"Sound pressure": the root mean square of the instantaneous sound pressures during a specified time interval in a stated frequency band. The unit for sound pressure is pascal (Pa).

"Sound pressure level": 20 times the logarithm to the base 10 of the ratio of the particular sound pressure to the reference sound pressure of 20 micropascals. ANSI S12.9-2013/Part 1 "~~ 1988 (R1998) "American National Standard~~ Quantities and Procedures for Description and Measurement of Environmental Sound - Part 1: Basic Quantities and Definitions~~,~~", incorporated by reference at Section 900.106, reserves the term sound pressure level to denote the unweighted sound pressure. The unit for sound pressure level is decibel (dB).

"Special mobile equipment": every vehicle not designed or used primarily for the transportation of persons or property and only incidentally operated or moved over a highway, including ~~but not limited to~~: ditch digging apparatus, well-boring apparatus and road construction and maintenance machinery, such as asphalt spreaders, bituminous mixers, bucket loaders, tractors other than truck tractors, leveling graders, finishing machines, motor graders, road rollers, scarifiers, earth-moving carryalls and scrapers, power shovels and drag lines, and self-propelled cranes and other earth-moving equipment.

"Steady sound": a sound whose sound pressure level remains essentially constant (that is, meter fluctuations are negligibly small) during the measurement period~~.~~ with meter~~Meter~~ variations ~~are less than or equal~~up to ~~+/-~~± 3 dB using the "slow" meter characteristic.

"Tactical military vehicle": every vehicle operated by any federal or state military organization and designed for use in field operations, but not including vehicles such as staff cars and personnel carriers designed primarily for normal highway use.

"Time-average sound level" or "~~(or~~ equivalent-continuous sound level" or "equivalent-continuous frequency-weighted sound pressure level~~)~~": 20 times the logarithm to the base 10 of the ratio of the time-average (frequency-weighted) sound pressure to the reference pressure of 20 micropascals~~micropascal~~. The frequency weighting used must be specified explicitly (e.g., A, C or octave band). The unit of time-average sound level is the decibel (dB).

"Time-average (frequency-weighted) sound pressure": square root of the quotient of the time integral of frequency-weighted squared instantaneous sound pressures divided by the time period of integration; or the square root of the quotient of the sound exposure, in pascal-squared seconds (Pa^2 –s), in a specified time period, divided by the time period of integration in seconds. The frequency weighting used must be specified explicitly (e.g., A, C or octave band). The unit of time-average sound pressure is the pascal (Pa).

"Unregulated safety relief valve": a safety relief valve used and designed to be actuated by high pressure in the pipe or vessel to which it is connected and that~~which~~ is used and designed to prevent explosion or other hazardous reaction from pressure buildup, rather than being used and designed as a process pressure blowdown.

"Used motor vehicle": a motor vehicle that is not a new motor vehicle.

"Vehicle": every device in, upon, or by which any person or property is or may be transported or drawn upon a highway.

"Weekday": any day thatwhich occurs during the period of time commencing at 10:00 p.m. Sunday and ending at 10:00 p.m. Friday during any particular week.

"Weekend day": any day thatwhich occurs during the period of time commencing at 10:00 p.m. Friday and ending at 10:00 p.m. Sunday during any particular week.

"Well-maintained muffler": any a muffler thatwhich is free from defects which affect affecting its sound reduction. Such muffler shall be free of and visible defects, such as holes and other acoustical leaks.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 900.102 Prohibition of Noise Pollution

ANo person shall must not cause or allow the emission of sound beyond the boundaries of that person'shis property, as property is defined in Section 25 of the Illinois Environmental Protection Act [415 ILCS 5/25] thatwhich so as to causescause noise pollution in Illinois, or violatesso as to violate any provision of this Chapter.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 900.103 Measurement Procedures

a) Procedures Applicable to all All of 35 Ill. Adm. Code: Subtitle H, Chapter I

The Agency may adopt procedures which set forth criteria for the measurement of sound for all Parts except 35 Ill. Adm. Code 900 and 901. Such The procedures for the measurement of sound under Subtitle H, Chapter I, except for Parts 900 and 901, mustshall be in substantial conformity with substantially conform to standards and recommended practices established by the American National Standards Institute, Inc. (ANSI), ASA, IEC, or the Society of Automotive Engineers, Inc. (SAE), incorporated by reference at Section 900.106. Such procedures shall be revised from time to time to reflect current engineering judgment and advances in noise measurement techniques. Such procedures, and revisions, thereof, shall not become effective until filed with the Administrative Code Division of the Office of the Secretary of State as required by the Illinois Administrative Procedure Act [5 ILCS 100]. The sound measurementMeasurement procedures for 35 Ill. Adm. Code 900 and 901 mustshall conform to 35 Ill. Adm. Code 910.

b) Procedures Applicable Onlyonly to 35 Ill. Adm. Code 901

1) All measurement and all measurement procedures to determine compliance whether emissions of sound comply with 35 Ill. Adm. Code

901 ~~shall~~, ~~with the exception of~~ except for measurements to determine ~~whether emissions of sound comply~~compliance with 35 Ill. Adm. Code 901.109, must be based on L_{eq} averaging, as defined in ~~35 Ill. Adm. Code~~ Section 900.101, using a reference time as follows:

A) Except as specified in subsection (b)(1)(B) for steady sound, use a reference time of at least 1 hour ~~shall be used~~ for all sound measurements and measurement procedures.

B) For measurement of steady sound as defined in Section 900.101 ~~of this Part~~, use a~~the~~ reference time ~~shall be~~ of at least 10 minutes.

2) All measurements and measurement procedures under subsection (b)(1)(B) of this Section must correct or provide for the correction of sound~~such~~ emissions for the presence of ambient or background noise in ~~accordance~~compliance with the procedures in 35 Ill. Adm. Code 910. All measurements must ~~be in conformity~~ comply with the following ANSI standards, incorporated by reference at Section 900.106:

A) ANSI/ASA S1.4-2014/Part 1~~1983 (R2001)~~ "American National Standard Electroacoustics ~~Specification for~~ Sound Level Meters – Part 1: Specifications (a nationally adopted international standard)~~.~~".

B) ANSI/ASA S1.6-2016~~1984 (R2001)~~ "~~American National Standard~~ Preferred Frequencies~~,~~ and Filter Band Center Frequencies ~~Frequency~~ ~~Levels, and Band Numbers~~ for Acoustical Measurements~~.~~".

C) ANSI/ASA S1.11-2014/Part 1/IEC 61260:1-2014 ~~1986 (R1998)~~ "~~American National Standard Specification for~~ Electroacoustics Octave-Band and Fractional-Octave-Band ~~Analog and Digital~~ Filters – Part 1: Specifications (a nationally adopted international standard)~~.~~".

D) ANSI/ASA S1.13- S1.13-2005 (R2010)~~1995 (R1999)~~ "~~American National Standard~~ Measurement of Sound Pressure Level in Air~~.~~".

E) ANSI S12.9-2013/Part 3~~1993 (R1998)~~ "~~American National Standard~~ Quantities and Procedures for Description and Measurement of Environmental Sound - Part 3: Short-Term Measurements with~~With~~ an Observer Present~~.~~".

c) Procedures Applicable Only~~only~~ to 35 Ill. Adm. Code 902

1) ~~Measurement procedures to~~To determine whether emissions of sound comply with 35 Ill. Adm. Code 902.120 through 902.123, use measurement procedures ~~must be in conformity~~ compliant with the following ANSI standards, incorporated by reference at Section 900.106:

A) ANSI S1.4-/Part 1/IEC 61672:1-2013~~1983 (R2001)~~ "American National Standard Electroacoustics - ~~Specification for~~ Sound Level Meters – Part 1: Specifications (a nationally adopted international standard)~~.~~".

B) ANSI S1.13-2005 (R2010)~~1995 (R1999)~~ "~~American National Standard~~ Measurement of Sound Pressure Level in Air~~.~~".

2) The procedures for sound measurement under 35 Ill. Adm. Code 902.123 must conform to the ANSI standards prescribed in subsection (c)(1), and must ~~above provided that the procedures are in conformity~~ comply with those established by the U.S. Department of Transportation at~~under~~ 49 CFR 325, as directed by ~~pursuant to~~ Section 17 of the Federal Noise Control Act of 1972~~,~~ (42 USC §4901 et seq.).

3) The Board may provide for measurement at distances other than the 50 feet specified in 35 Ill. Adm. Code 902.120 through 902.123, ~~provided that~~ if correction factors are applied so that the sound levels so determined are substantially equivalent to those measured at 50 feet and the measurement distance does not exceed 100 feet. Use the ~~The~~ correction factors ~~used shall be~~ consistent with California Highway Patrol Sound Measurement Procedures HPH 83.1 (October 1, 1973, as amended November 9, 1975), incorporated by reference at Section 900.106.

d) Procedures Applicable Only~~only~~ to 35 Ill. Adm. Code 905

1) ~~Measurement procedures to~~To determine whether emissions of sound comply with 35 Ill. Adm. Code 905.102(a) and 905.103(a)(1) ~~must be~~, use measurement procedures ~~in conformity~~ compliant with the following standards, incorporated by reference at Section 900.106:

A) ANSI S1.4-2014/Part 1/IEC 61672:1-2013~~1983 (R2001)~~ "American National Standard Electroacoustics – ~~Specification for~~ Sound Level Meters – Part 1: Specifications~~.~~".

B) SAE Recommended Practice J192 "Exterior Sound Level for Snowmobiles~~.~~". January 2013~~March 1985~~.

2) ~~Measurement procedures to~~To determine whether emissions of sound comply with 35 Ill. Adm. Code 905.102(b) and 905.103(a)(2), use measurement procedures ~~shall be in substantial~~ substantially ~~conformity~~

compliant with the following standards, incorporated by reference at Section 900.106:

A) ANSI S1.4-2014/Part 1/IEC 61672:1-2013 ~~1983 (R2001)~~ "American National Standard Electroacoustics – ~~Specification for~~ Sound Level Meters: Specifications~~.~~".

B) SAE/ANSI Recommended Practice J1161 "Operational Sound Level Measurement Procedure for Snow Vehicles", April 2004~~March 1983~~.

~~3) The Agency may establish criteria for measuring at distances other than the 50 feet specified in 35 Ill. Adm. Code 905.102 and 905.103, provided that correction factors are applied so that the sound levels so determined are substantially equivalent to those measured at 50 feet. In adopting new or revised criteria, the Agency shall comply with the requirements of the Illinois Administrative Procedure Act, [5 ILCS 100].~~

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 900.104 Burden of Persuasion Regarding Exceptions (Repealed)

~~In any proceeding pursuant to this Chapter, if an exception stated in this Chapter would limit an obligation, limit a liability, or eliminate either an obligation or a liability, the person who would benefit from the application of the exception shall have the burden of persuasion that the exception applies and that the terms of the exception have been met. The Agency shall cooperate with and assist persons in determining the application of the provisions of this Chapter.~~

(Source: Repealed at 42 Ill. Reg._____, effective _____)

Section 900.105 Severability

If any provision of ~~these rules or regulations~~this Chapter is adjudged invalid, or ~~if the~~ its application ~~thereof~~ to any person or in any circumstances is adjudged invalid, that~~such~~ invalidity ~~shall~~ will not affect the validity of any other provision of this Chapter or of the Chapter as a whole ~~or of any part, sub-part, sentence or clause thereof not adjudged invalid~~.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 900.106 Incorporations ~~Incorporation~~ by Reference

The Board incorporates the following material by reference. These incorporations include no later amendments or editions.

a) American National Standards Institute, 25 West 43rd Street, 4th Fl., New York, ~~New York~~ NY 10036. (212)-642-4900.

1) ANSI/ASA S1.1-2013~~1994 (R1999)~~ "~~American National Standard~~ Acoustical Terminology~~.~~".

2) ANSI/ASA S1.4-2014/Part 1/IEC 61672:1-2013~~1983 (R2001)~~ "American National Standard Electroacoustics – Sound Level Meters – Part 1: Specifications (a nationally adopted international standard) ~~for Sound Level Meters.~~".

3) ANSI/ASA S1.6-2016~~1984 (R2001)~~ "~~American National Standard~~ Preferred Frequencies and Filter Band Center~~,~~ Frequencies~~Frequency Levels, and Band Numbers~~ for Acoustical Measurements~~.~~".

4) ANSI/ASA S1.8-2016~~1989~~ "~~American National Standard~~ Reference Values for Levels Used in ~~Quantities for~~ Acoustics and Vibrations~~Vibrational Levels.~~".

5) ANSI/ASA S1.11-2014/Part 1/IEC 61260:1-2014~~1986 (R1998)~~ "~~American National Standard~~ Electroacoustics - ~~Specification for~~ Octave-Band and Fractional-Octave-Band ~~Analog and Digital~~ Filters – Part 1: Specifications (a nationally adopted international standard)~~.~~".

6) ANSI/ASA S1.13-2005~~1995~~ (R2010~~1999~~) "~~American National Standard~~ Measurement of Sound Pressure Level in Air~~.~~".

7) ANSI/ASA S12.9-~~1988 (R1998)~~2013/Part 1 "~~American National Standard~~ Quantities and Procedures for Description and Measurement of Environmental Sound - Part 1: Basic Quantities and Definitions~~.~~".

8) ANSI/ASA S12.9-~~1993 (R1998)~~2013/Part 3 "~~American National Standard~~ Quantities and Procedures for Description and Measurement of Environmental Sound - Part 3: Short-Term Measurements with~~With~~ an Observer Present~~.~~".

9) ANSI/ASA S12.5~~3~~1-2012/ISO 3741:2010~~1990 (R2001)~~ "~~American National Standard~~ Acoustics ~~Precision Methods for the~~ Determination of Sound Power Levels and Sound Energy Levels of ~~Broad-Band~~ Noise Sources using Sound Pressure – Precision Methods for ~~in~~ Reverberation Test Rooms (a nationally adopted international standard)~~.~~".

10) ~~ANSI S12.32-1990 (R2001) "American National Standard Precision Methods for the Determination of Sound Power Levels of Discrete-Frequency and Narrow-Band Noise Sources in Reverberation Rooms."~~

~~11)~~ ~~International Electrotechnical Commission,~~ IEC 61672-1:2013 ~~804-2000~~ "Electroacoustics ~~Integrating/Averaging~~ Sound Level Meters – Part 1: Specifications~~.~~".

b) Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096. (877) 606-7323.

1) SAE Recommended Practice J184 "Qualifying a Sound Data Acquisition System~~.~~", November 1998.

2) SAE Recommended Practice J192 "Exterior Sound Level for Snowmobiles~~.~~", January 2015 ~~March 1985~~.

3) SAE/ANSI Recommended Practice J1161 "Operational Sound Level Measurement Procedure for Snowmobiles~~Snow Vehicles.~~", April 2004~~March 1983~~.

c) California Highway Patrol Sound Measurement Procedures HPH 83.1 (October 1, 1973, as amended November 9, 1975. Available at Illinois Pollution Control Board Clerk's Office, 100 W. Randolph Street, Suite 11-500, Chicago, IL 60601. (312) 814-3620.

d) Code of Federal Regulations

1) 40 CFR 202.12(e) (2017).

2) 40 CFR 202.20(a) (2017).

3) 40 CFR 202.21(a) (2017).

4) 40 CFR 202.22 (2017).

5) 40 CFR 202.23 (2017).

6) 40 CFR 205.152(a) (2017).

7) 40 CFR 205.166 (2017).

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 900.APPENDIX A Old Rule Numbers Referenced (Repealed)

~~The following table is provided to aid in referencing old Board rule numbers to section numbers pursuant to codification.~~

~~Old Part 1 of Chapter 8~~	~~35 Ill. Adm. Code Part 900~~
~~Rule 101~~	~~Section 900.101~~
~~Rule 102~~	~~Section 900.102~~
~~Rule 103~~	~~Section 900.103~~

~~Rule 104~~ ~~Section 900.104~~
~~Rule 105~~ ~~Section 900.105~~

(Source: Repealed at 42 Ill. Reg._____, effective _____)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE H: NOISE
CHAPTER I: POLLUTION CONTROL BOARD

PART 901
SOUND EMISSION STANDARDS AND LIMITATIONS FOR PROPERTY LINE-NOISE-SOURCES

Section

AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/25 and 27].

SOURCE: Originally filed as Part 2 of Chapter 8: Noise Pollution, effective August 10, 1973; amended at 2 Ill. Reg. 27, p. 223, effective June 26, 1978; amended at 5 Ill. Reg. 6371, effective June 1, 1981; amended at 5 Ill. Reg. 8533, effective August 10, 1981; amended at 6 Ill. Reg. 10960, effective September 1, 1982; codified at 7 Ill. Reg. 13646; amended at 7 Ill. Reg. 14519, effective October 17, 1983; amended in R83-35 at 8 Ill. Reg. 18893, effective September 25, 1984; amended in R83-33, 26, 29, 30 and R83-34 at 9 Ill. Reg. 1405, effective January 17, 1985; Section 901.105(f)(1), (2) and (3) recodified to Sections 901.110, 901.111 and 901.112 at 9 Ill. Reg. 7147; amended in R83-25, 31 and 32 at 9 Ill. Reg. 7149, effective May 7, 1985; amended in

R83-7 at 11 Ill. Reg. 3136, effective January 28, 1987; amended in R04-11, at 28 Ill. Reg. 11910, effective July 30, 2004; amended in R03-9 at 30 Ill. Reg.5533, effective March 10, 2006; amended in R06-11 at 31 Ill. Reg. 1984, effective January 12, 2007; amended in R14-22 at 39 Ill. Reg. 16264, effective December ~~7~~2, 2015; amended in R18-19 at 42 Ill. Reg._____, effective _____.

Section 901.101 Classification of Land According to Use

a) The land use classification system used for ~~the purposes of~~ applying the numeric sound standards ~~for~~ of this Part is based on the Land-Based Classification Standards (LBCS) (Jeer, Sanjay. 2001. Land-Based Classification Standards;~~.~~ online at ~~Online,~~ https://www.planning.org/lbcs ~~http://www.planning.org/LBCS~~. American Planning Association: Chicago, Illinois). The LBCS applicable to this Part is ~~set forth~~ in Appendix B.

b) Class A land includes all land used as specified by LBCS Codes 1000 through 1340, 2410 through 2455, 5200 through 5230, 5500, 6100 through 6145, 6222, 6510 through 6530, and 6568 through 6600.

c) Class B land includes all land used as specified by LBCS Codes 2100 through 2336, 2500 through 2720, 3500 through 3600, 4220 through 4243, 5100 through 5160, 5300 through 5390, 5400, 6147, 6210 through 6221, 6300 through 6320, 6400 through 6430, 6560 through 6567, 6700 through 6830, and 7100 through 7380.

d) Class C land includes all land used as specified by LBCS Codes 3100 through 3440, 4120 through 4180, 4210 through 4212, 4300 through 4347, 7400 through 7450, 8000 through 8500, and 9100 through 9520.

e) A parcel or tract of land used as specified by LBCS Code 9100, 9400, or 5500, when adjacent to Class B or C land may be classified similarly by action of a municipal government ~~having~~ with zoning jurisdiction over that~~such~~ land. ~~Notwithstanding~~Despite any subsequent changes in actual land use, land so classified retains the~~such~~ B or C classification until the municipal government removes the classification adopted by it.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.102 Sound Emitted to Class A Land

a) Except as elsewhere provided in this Part, a~~no~~ person must not~~shall~~ cause or allow the emission of sound during daytime hours from any property-~~line noise source~~ line noise source located on any Class A, B or C land to any receiving Class A land that~~which~~ exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within the~~such~~ receiving Class A land~~,~~. Sound ~~provided, however, that no measurement of sound~~ pressure levels

mustshall be measured at leastmade less than 25 feet from thesuch property- line noise source line noise source.

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A Land from		
	Class C Land	Class B Land	Class A Land
31.5	75	72	72
63	74	71	71
125	69	65	65
250	64	57	57
500	58	51	51
1000	52	45	45
2000	47	39	39
4000	43	34	34
8000	40	32	32

b) Except as provided elsewhere in this Part, no a person must notshall cause or allow the emission of sound during nighttime hours from any property- line noise source line noise source located on any Class A, B or C land to any receiving Class A land thatwhich exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within thesuch receiving Class A land. Sound, provided, however, that no measurement of sound pressure levels mustshall be measured at leastmade less than 25 feet from thesuch property- line noise source line noise source.

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A Land from		
	Class C Land	Class B Land	Class A Land
31.5	69	63	63
63	67	61	61
125	62	55	55
250	54	47	47
500	47	40	40
1000	41	35	35
2000	36	30	30
4000	32	25	25
8000	32	25	25

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.103 Sound Emitted to Class B Land

Except as provided elsewhere in this Part, a~~no~~ person must not~~shall~~ cause or allow the emission of sound from any property-~~line-noise-source~~ line noise source located on any Class A, B or C land to any receiving Class B land that~~which~~ exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within the~~such~~ receiving Class B land. Sound~~, provided, however, that no measurement of sound~~ pressure levels must~~shall~~ be measured at least~~made less than~~ 25 feet from the ~~such~~ property-~~line-noise-source~~ line noise source.

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class B Land from		
	Class C Land	Class B Land	Class A Land
31.5	80	79	72
63	79	78	71
125	74	72	65
250	69	64	57
500	63	58	51
1000	57	52	45
2000	52	46	39
4000	48	41	34
8000	45	39	32

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.104 ~~Highly-Impulsive~~ Highly Impulsive Sound

Except as provided elsewhere in this Part, a~~no~~ person must not~~shall~~ cause or allow the emission of ~~highly-impulsive~~ highly impulsive sound from any property-~~line-noise-source~~ line noise source located on any Class A, B, or C land to any receiving Class A or B land that~~which~~ exceeds the allowable A-weighted sound levels, measured with fast dynamic characteristic, specified in the following table, when measured in ~~accordance~~compliance with the procedure of 35 Ill. Adm. Code 900.103 at any point within the~~such~~ receiving Class A or B land. Sound~~, provided, however, that no measurement of sound~~ pressure levels must~~shall~~ be measured at least~~made less than~~ 25 feet from the~~such~~ property-~~line-noise-source~~ line noise source.

Classification of Land on which Property-Line ~~Noise-Source~~ Noise Source~~:~~ is Located	Allowable A-weighted Sound Levels in Decibels of ~~Highly-Impulsive~~ Highly Impulsive Sound Emitted to Receiving Class A or B Land		
	Class B Land	Class A Land	
		Daytime	Nighttime
Class A Land	47	47	37
Class B Land	54	47	37

Class C Land	58	53	43

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.105 Impact Forging Operations

a) For purposes of this Section, only the following are applicable:

1) "Daytime hours" means any continuous 16-hour period between 6:00 a.m. and 11:00 p.m. local time.; and

2) "Nighttime hours" means those the 8 hours between 10:00 p.m. and 7:00 a.m. thatwhich are not part of the 16 continuous daytime hours.

3) The reference time for L_{eq}, as defined in 35 Ill. Adm. Code 900.101, is one hour.

4) "New Impactingimpact Fforging Ooperation" is that means a property-line-noise-source line noise source comprised of impact forging operation on which construction began after September 1, 1982.

5) "Existing Iimpact Fforging Ooperation" is that means a property-line-noise-source line noise source comprised of impact forging operations that werewhich are in existence on September 1, 1982.;

b) Emission Limitations for New Impact Forging Operation.

No A new impact forging operation must notshall cause or allow the emission of impulsive sound to any receiving Class A or B land thatwhich exceeds the allowable sound levels specified in the following table, when measured at any point within thesuch receiving land. Sound pressure, provided, however, that no measurement of sound levels mustshall be measured at leastmade less than 25 feet from thesuch new impact forging operation's property line property line.

Allowable Highly Impulsive Highly Impulsive Sound Levels (L_{eq}) in Decibels Emitted To Class A or B Land from New Impact Forging Operation

Class B Land	Class A Land	
	Daytime	Nighttime
59.5	53.5	48.5

c) Limitations for Existing Impact Forging Operation

Unless granted a permanent site-specific allowable operational level pursuant to subsection (d), anNo existing impact forging operation must notshall cause or

allow the emission of ~~highly-impulsive~~ highly impulsive sound to any receiving Class A or B land that~~which~~ exceeds the allowable sound levels specified in the following table, when measured at any point within the~~such~~ receiving land. Sound~~, provided, however, that no measurement of sound~~ pressure levels must~~shall~~ be measured at least~~made less than~~ 25 feet from the~~such~~ existing impact forging operation's property-line.~~, unless such forging operation is granted a permanent site-specific allowable operational level pursuant to subsection (d).~~

Allowable ~~Highly- Impulsive~~ Highly Impulsive Sound Levels (L_{eq}) in Decibels Emitted To Class A or B Land from Existing Impact Forging Operation

Class B Land	Class A Land	
	Daytime	Nighttime
64.5	58.5	53.5

d) Site Specific Allowable Operational Level for Existing Impact Forging Operation

1) An existing impact forging operation that~~which~~ does not comply with subsection (c) may seek a permanent site-specific allowable operational level from the Board. A permanent site-specific level is the~~that~~ level of operation allowed for a petitioner after review and approval by the Board and after implementation of abatement measures, if any, approved by the Board.

2) Any existing impact forging operation seeking a permanent site-specific operational level must submit with ~~as~~ its petition the following:

A) The location of the petitioner, a description of the surrounding community, and a map locating the petitioner within the community;

B) A description of the petitioner's operations, the number and size of the petitioner's forging hammers, the current hours of hammer operation, the approximate number of forgings manufactured during each of the three prior calendar years and the approximate number of hammer blows used to manufacture the forgings;~~.~~

C) A description of any existing sound abatement measure;~~.~~

D) The sound levels in excess of those permitted by subsection (c) emitted by the petitioner into the community, in 5 decibel increments measured in L_{eq}, shown on the map of the community;~~.~~

E) The number of residences exposed to sound levels in excess of those permitted by subsection (c);

F) A description of other significant sources of noise (mobile and stationary) and their location shown on the map of the community;

G) A description of the proposed operational level and proposed physical abatement measures, if any, a schedule for their implementation and their costs;

H) The predicted improvement in community sound levels as a result of implementation of the proposed abatement measures; and

I) A description of the economic and technical considerations that~~which~~ justify the permanent site specific allowable operational level sought by the petitioner.

e) Land Use Classifications Preserved

The land use classifications in effect within a one-mile radius of an existing impact forging operation on September 1, 1982 remain~~remains~~ the applicable land use classifications~~classification~~ for enforcement of these rules against an existing forging operation and its~~any~~ future modification ~~thereof~~, regardless of actual subsequent changes in land use unless such actual changes would impose less restrictive limitations on the impact forging operations.

f) Site-Specific Operational Levels

Each individual existing forging operation identified in Sections 901.110 through~~,~~ 901.122~~11 and 901.112~~ must comply with either the site-specific operational level defined in those sections~~,~~ or ~~is otherwise subject to~~the allowable sound levels in Section 901.105(c).

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.106 Prominent Discrete Tones

a) A~~No~~ person must not~~shall~~ cause or allow the emission of any prominent discrete tone from any property-~~line noise source~~ line noise source located on any Class A, B or C land to any receiving Class A, B or C land, when measured at any point within the receiving land. One-third ~~provided, however, that no measurement of one-third~~ octave band sound pressure levels must~~shall~~ be measured at least ~~made less than~~ 25 feet from the ~~such~~ property-line noise source.

b) Subsection (a) ~~This rule~~ does~~shall~~ not apply to prominent discrete tones having a one-third octave band sound pressure level 10 or more dB below the allowable octave band sound pressure level specified in Sections 901.102 through 901.104

for the octave band thatwhich contains thesuch one-third octave band. In the application of this subsectionsub-section, the applicable numeric standard for sound emitted from any existing property-line-noise-source line noise source to receiving Class A land, for both daytime and nighttime operations, is found in Section 901.102(a).

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.107 Exceptions

a) Sections 901.102 through 901.106 doinclusive does not apply to sound emissionsemitted from land used as specified by LBCS Codes 1100, 6600 and 5500.

b) Sections 901.102 through 901.106 doinclusive does not apply to sound emissionsemitted from emergency warning devices and unregulated safety relief valves.

c) Sections 901.102 through 901.106 doinclusive does not apply to sound emissionsemitted from lawn care maintenance equipment and agricultural field machinery used during daytime hours. For the purposes of this sub-section, grain dryers operated off the farm are not considered agricultural field machinery.

d) Sections 901.102 through 901.106 inclusive do not apply to sound emissionsemitted from equipment being used for construction.

e) Section 901.102(b) doesdo not apply to sound emissionsemitted from existing property-line-noise-source line noise source during nighttime hours. However, provided, however, that sound emissionsemitted from such existing property-line-noise-source line noise source are governed during nighttime hours are subject toby the limits specified in Section 901.102(a).

f) Sections 901.102 through 901.106 inclusive do not apply to the operation of any vehicle registered for highway use while thesuch vehicle is being operated within any land used as specified by Section 901.101 in the course of during ingress to or egress from a highway.

g) Sections 901.102 through 901.106 inclusive do not apply to sound emissionsemitted from: land used as specified by LBCS Codes 5130 and 5140 when used for automobile and motorcycle racing; and, any land used for contests, rallies, time trials, test runs or similar operations of any self-propelled device, and upon or by which any person is or may be transported or drawn, when such self-propelled device is actually being used for sport or recreation and is actually participating in an activity or event organized, regulated, and supervised under the sponsorship and sanction of a club, organization or corporation having national or statewide recognition. However,; provided, however, that the exceptions granted

~~in~~of this subsection do not apply to any automobile and motorcycle race, contest, rally, time trial, test run or similar operation of any self-propelled device if such event is started between the hours of 10:30 p.m. to 7:00 a.m., local time weekdays, or between the hours of 11:00 p.m. and 7:00 a.m., local time, weekend days.

h) Section 901.104 does~~shall~~ not apply to impulsive sound emissions produced by explosive blasting activities conducted on any Class C land other than the land used as specified by LBCS Codes 8300 and 8500.~~,~~ However, explosive blasting~~but such~~ operations are subject to ~~shall be governed by~~ Section 901.109.

i) This ~~Part 901~~ does~~shall~~ not apply to impulsive sound emissions produced by explosive blasting activities that~~, which~~ are:

1) Conducted on any Class C land used as specified by LBCS Codes 8300 and 8500; and

2) Regulated by the Department of Natural Resources in compliance ~~accordance~~ with Section 6.5 of the Surface-Mined Land Conservation and Reclamation Act [225 ILCS 715/6.5] and Section 3.13 of the Surface Coal Mining Land Conservation and Reclamation Act [225 ILCS 720/3.13].

j) Sections 901.102 through 901.106 ~~inclusive~~ do not apply to sound emissions ~~emitted~~ from snowmobiles.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.108 Compliance Dates for Part 901 (Repealed)

~~a) Except as provided in subsections (g), (i), and (j), every owner or operator of a new property-line-noise-source must comply with the standards and limitations of this Part on and after August 10, 1973.~~

~~b) Except as otherwise provided in this rule, every owner or operator of an existing property-line-noise-source must comply with the standards and limitations of this Part on and August 10, 1974.~~

~~c) Every owner or operator of an existing property-line-noise-source who emits sound which exceeds any allowable octave band sound pressure level of Section 901.102 or 901.103 by 10 dB or more in any octave band with a center frequency of 31.5 Hertz, 63 Hertz or 125 Hertz must comply with the standards and limitations of this Part on and after February 10, 1975.~~

~~d) Except as provided in subsections (g) and (h), every owner or operator of an existing property-line-noise-source required to comply with Section 901.104 must comply with the standards and limitations of this Part on and after February 10, 1975.~~

~~e)~~ ~~Every owner or operator of an existing property-line-noise-source required to comply with Section 901.106 must comply with the standards and limitations of this Part on and after February 10, 1975.~~

~~f)~~ ~~Every owner or operator of Class C land now and hereafter used as specified by LBCS Code 4120 will have until August 10, 1976 to bring the sound from railroad car coupling in compliance with Section 901.104.~~

~~g)~~ ~~Existing impact forging operations as defined in Section 901.105 which do not seek permanent site specific allowable operational levels must comply with Section 901.105 by December 1, 1983. Those seeking permanent site specific allowable operational levels pursuant to Section 901.105(d) must comply as of the effective date of the site specific rule granted or denied.~~

~~h)~~ ~~Every owner or operator of Class C land now or hereafter used as specified by LBCS Code 3310 must comply with the standards and limitations of this Part on August 10, 1975.~~

~~i)~~ ~~Every owner or operator of Class C land now or hereafter used as specified by LBCS Code 5130 and 5140 when used for automobile and motorcycle racing must comply with the standards and limitations of this Part on February 10, 1976.~~

(Source: Repealed at 42 Ill. Reg._____, effective _____)

Section 901.109 ~~Highly Impulsive~~ Highly Impulsive Sound From Explosive Blasting

a) During the daytime hours that cover the period after sunrise and before sunset, a~~no~~ person must not~~shall~~ cause or allow any explosive blasting conducted on any Class C land, other than land used as specified by LBCS Codes 8300 and 8500, ~~so as~~ to allow the sound emissions~~emission of sound~~ to any receiving Class A or B land that~~which~~ exceeds the allowable outdoor C-weighted sound levels~~, measured with the slow dynamic characteristic,~~ specified in the following table, when measured with slow dynamic characteristic at any point~~, of reasonable interference with the use of~~ within the~~such~~ receiving Class A or B land.

Allowable Outdoor C-Weighted Sound Exposure Levels in Decibels of Explosive Blasting Sounds Emitted to Receiving U Class A or B Land from Any Class C Land other than Land U Used as Specified by LBCS Code 8300 or 8500

Receiving Class A Land	Receiving Class B Land
107	112

The allowable sound exposure level limits in the above table must be lowered by three decibels (3 dB) for each doubling of the number of blasts during the day or night.

b) Compliance with outdoor peak sound pressure level limits in the following table is ~~shall constitute~~ prima facie level limits of this Section~~rule~~ when measured on the~~such~~ receiving Class A or B land.

Equivalent Maximum Sound Pressure Level (Peak) Limits in Decibels

Lower Frequency Limit of Measuring System for Flat Response, a Variation from Linear Response of + or - 3dB (Hz)	Receiving Class A Land (dB)	Receiving Class B Land (dB)
< 2.0 but > 0.1	133	133

c) During the period defined by both the beginning of the nighttime hours (10:00 pm) or sunset, whichever occurs earlier, and the ending of the nighttime hours (7:00 am) or sunrise, whichever occurs later, the allowable sound level limits in subsections (a) and (b) must be reduced by 10 decibels except in emergency situations where rain, lightning, other atmospheric conditions, or operator or public safety requires unscheduled nighttime hour explosive blasting.

d) Persons causing or allowing explosive blasting to be conducted on any Class C land other than land used as specified by LBCS Code 8300 or 8500 must notify the local public of the~~such~~ blasting prior to its occurrence, except when emergency situations require unscheduled blasting, by publication of a blasting schedule, identifying the work days or dates and time periods when explosives are expected to be detonated, at least every three months in a newspaper of general circulation in the locality of the blast site.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.110 Amforge Operational Level (Repealed)

~~Amforge Division of Rockwell International located at 119th Street, Chicago, Illinois must:~~

~~a)~~ ~~Operate only ten forging hammers at any one time;~~

~~b)~~ ~~Operation of its forging hammers is limited to the hours of 7:00 a.m. through 11:00 p.m., with occasional operations beginning at 6:00 a.m. and ending at midnight, Monday through Saturdays; and~~

~~c)~~ ~~Install sound absorptive materials on each of the forging hammer structures as each is routinely overhauled, but no later than January 1, 1987.~~

(Source: Repealed at 42 Ill. Reg._____, effective _____)

Section 901.111 Modern Drop Forge Operational Level (Repealed)

~~Modern Drop Forge Company located at 139th Street and Western Avenue in Blue Island, Illinois must:~~

~~a) Operate only twenty-one forging hammers at any one time; and~~

~~b) Operate its forging hammers only during the hours of 6:00 a.m. through midnight, Mondays through Fridays, and 6:30 a.m. until 7:30 p.m. on Saturdays.~~

(Source: Repealed at 42 Ill. Reg._____, effective _____)

Section 901.112 Wyman-Gordon Operational Level (Repealed)

~~Wyman-Gordon Company located at 147th Street and Wood Street, Harvey, Illinois shall:~~

~~a) Operate only six forging hammer units, each consisting of two hammers, after January 1, 1984.~~

~~b) Operate forging units in Buildings 6 and 7, located at the southern perimeter of the Wyman-Gordon Company's Harvey facility, to produce no more than 20% of the total annual hammer production at the Harvey facility;~~

~~c) Operate forging units between the hours of 6:00 a.m. and midnight; limit forging operations on Saturdays and Sundays to no more than half a year's total; and limit forging operations during the hours of 6:00 a.m. and 7:00 a.m. and 11:00 p.m. and midnight to less than 2% of the Harvey's facility total annual hammer production; and~~

~~d) Consolidate the two existing steel inventory yards at the one located north of Building 75 no later than January 1, 1984.~~

(Source: Repealed at 42 Ill. Reg._____, effective _____)

Section 901.114 Moline Forge Operational Level

Moline Forge and future owners of the forging facility located at 4101 Fourth Avenue, Moline, Illinois, ~~shall~~must comply with the following site-specific operational level:

a) Operate no more than nine forging hammers at the same ~~any one~~ time; and

b) Operate its forging hammers only between the hours of 6:00 a.m. until 11:00 p.m. Monday through Friday and from 6:00 a.m. until 3:30 p.m. on Saturdays.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.115 Cornell Forge Hampshire Division Site-Specific Operational Level

Cornell Forge, Hampshire Division and future owners of the forging facility located at Walker Road, Hampshire, Illinois, ~~shall~~must comply with the following site-specific operational level:

a) Operate no more than seven forging hammers at the same ~~any one~~ time; and

b) Operate its forging hammers only on Monday through Saturday between the hours of 7:00 a.m. ~~-~~to 3:30 p.m. ~~-~~with an additional shift that may run from either 3:30 p.m. ~~-~~to 12:00 p.m. ~~-~~or from 10:30 p.m. ~~-~~to 7:00 a.m.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.116 Forgings and Stampings, Inc. Operational Level

Forgings and Stampings, Inc. and future owners of the forging facility located at 1025 23rd Avenue, Rockford, Illinois, ~~shall~~must comply with the following site-specific operational level:

a) Operate no more than six forging hammers at the same ~~any one~~ time; and

b) Operate its forging hammers only between the hours of 6:00 a.m. and 6:00 p.m. Monday through Friday and 6:00 a.m. and 2:00 p.m. on Saturday.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.117 Rockford Drop Forge Company Operational Level

Rockford Drop Forge Company and future owners of the forging facility located at 2031 Ninth Street, Rockford, Illinois, ~~shall~~must comply with the following site-specific operational level:

a) Operate no more than 12~~twelve~~ forging hammers at the same ~~any one~~ time; and

b) Operate its forging hammers only between the hours of 6:00 a.m. and 10:00 p.m. Monday through Saturday.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.120 C.S. Norcross Operational Level

C.S. Norcross & Sons Company and future owners of the forging facility located at the intersection of Davis and Dean Streets, Bushnell, Illinois, ~~shall~~must comply with the following site-specific operational level:

a) Operate no more than 12~~twelve~~ forging hammers at the same ~~any one~~ time; and

b) Operate its forging hammers only between the hours of 7:00 a.m. and 1:00 a.m. Monday through Saturday.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.121 Vaughan & Bushnell Operational Level

Vaughan & Bushnell Manufacturing Company and the future owners of the forging facility located at the intersection of Davis and Main Streets, Bushnell, Illinois, must comply with the following site-specific operational level:

a) Operate no more than 10~~ten~~ hammers at the same ~~any one~~ time; and

b) Operate~~Vaughan & Bushnell may operate~~ its forging hammers up to 24 hours per day, Monday through Sunday.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.122 ~~Ameren~~ Elgin Facility Site-Specific Noise Emission Limitations

The Combustion Turbine Power Generation Facility located at 1559 Gifford Road in Elgin, Illinois ~~shall~~must not cause or allow the emission of sound from any property~~ line noise~~ line noise source located on that property that~~which~~ exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within the receiving Class A or Class B land.

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A or Class B Land from Ameren Elgin Facility	
	Class A Land	Class B Land
31.5	80	80
63	74	79
125	69	74
250	64	69
500	58	63
1000	58	58
2000	58	58
4000	50	50
8000	40	45

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 901.APPENDIX A Old Rule Numbers Referenced (Repealed)

~~The following table is provided to aid in referencing old Board rule numbers to section numbers pursuant to codification.~~

~~Old Part 2 of Chapter 8~~ ~~35 Ill. Adm. Code Part 901~~

~~Rule 201~~	~~Section 901.101~~
~~Rule 202~~	~~Section 901.102(a)~~
~~Rule 203~~	~~Section 901.102(b)~~
~~Rule 204~~	~~Section 901.103~~
~~Rule 205~~	~~Repealed~~
~~Rule 205 (was old 206)~~	~~Section 901.104~~
~~Rule 206 (new rule)~~	~~Section 901.105~~
~~Rule 207~~	~~Section 901.106~~
~~Rule 208~~	~~Section 901.107~~
~~Rule 209~~	~~Section 901.108~~
~~Rule 210~~	~~Section 901.109~~
~~Added in Codification~~	~~Appendix A~~
~~Unnumbered Appendix to Chapter 8, Part 2~~	~~Appendix B~~

(Source: Repealed at 42 Ill. Reg._____, effective _____)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE H: NOISE
CHAPTER I: POLLUTION CONTROL BOARD

PART 902
SOUND EMISSION STANDARDS AND LIMITATIONS FOR MOTOR VEHICLES

SUBPART A: EQUIPMENT STANDARDS APPLICABLE TO ALL MOTOR VEHICLES

Section
902.101 Exhaust System
902.102 Tires

SUBPART B: OPERATIONAL STANDARDS

Section
902.120 Standards Applicable to all Passenger Cars and to Other Motor Vehicles with Gross Vehicle Weight (GVW) of 8,000 Pounds or Less
902.121 Standards Applicable to Motor Vehicles with GVW in Excess of 8,000 Pounds
902.122 Standards Applicable to Motorcycles and Motor Driven Cycles
902.123 Exception for ~~and Standards Applicable to~~ Motor Carriers Engaged in Interstate Commerce with Respect to Operations Regulated ~~Pursuant to~~ Under the Federal Noise Control Act of 1972
902.124 Horns and Other Warning Devices
902.125 Tire Noise

SUBPART C: EXCEPTIONS AND COMPLIANCE DATES FOR PART 902

Section
902.140 Exceptions
902.141 Compliance Dates
902.APPENDIX A Old Rule Numbers Referenced (Repealed)

AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental Protection Act (415 ILCS 5/25 and 27).

SOURCE: Originally filed as Part 3 of Chapter 8: Noise Pollution, effective May 31, 1977; codified at 7 Ill. Reg. 13648; amended in R18-19 at 42 Ill. Reg._____, effective _____.

SUBPART A: EQUIPMENT STANDARDS APPLICABLE TO ALL MOTOR VEHICLES

Section 902.101 Exhaust System

Operation~~No person shall operate or cause or allow the operation~~ of a motor vehicle on a public right of way must comply with 625 ILCS 5/12-602 and 40 CFR 202.22, incorporated by reference at 35 Ill. Adm. Code 900.106. ~~unless it is at all times equipped with an adequate muffler or other sound dissipative device which is:~~

~~a)~~ ~~In constant operation and properly maintained to prevent any excessive or unusual noise;~~

~~b)~~ ~~Free from defects which affect sound reduction; and~~

~~c)~~ ~~Not modified in a manner which will amplify or increase the noise of such muffler or other sound dissipative device above that emitted by the muffler originally installed on the vehicle so as to produce excessive or unusual noise.~~

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 902.102 Tires

Operation~~No person shall operate or cause or allow the operation~~ of any ~~a~~ motor vehicle with one or more tires, regardless of weight, must comply with 40 CFR 202.23, incorporated by reference at 35 Ill. Adm. Code 900.106. ~~having a tread pattern which is composed primarily of cavities in the tread (excluding sipes and local chunking) which are not vented by grooves to the tire shoulder or circumferentially to each other around the tire.~~

(Source: Amended at 42 Ill. Reg._____, effective _____)

SUBPART B: OPERATIONAL STANDARDS

Section 902.120 Standards Applicable to all Passenger Cars and to Other Motor Vehicles with Gross Vehicle Weight (GVW) of 8,000 Pounds or Less

a) This Section~~rule~~ applies~~shall apply~~ to all passenger cars regardless of weight and to other motor vehicles with a GVW~~gross vehicle weight~~ of 8,000 pounds or less, except motorcycles and motor driven cycles.

b) Operation~~No person shall operate or cause or allow the operation~~ of a motor vehicle subject to this ~~rule~~Section at any time under any conditions of highway grade, load, acceleration or deceleration must not~~in such a manner as to~~ exceed the following limits:

1) On highways with speed limits of 35 miles per hour or less, 74 dB(A), or 76 dB(A) when operating on a grade exceeding 3%, measured with fast meter response at 50 feet from the centerline of lane of travel~~, or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103~~;

2) On highways with speed limits of more than 35 miles per hour, 82 dB(A), or 85 dB(A) if the vehicle is equipped with two or more snow or mud/snow tires, measured with fast meter response at 50 feet from the centerline of lane of travel~~, or an equivalent sound level limit measured in~~

~~accordance with procedures established under 35 Ill. Adm. Code 900.103~~.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 902.121 Standards Applicable to Motor Vehicles with GVW in Excess of 8,000 Pounds

a) This Section applies~~rule shall apply~~ to motor vehicles with a GVW~~gross vehicle weight~~ in excess of 8,000 pounds~~, except passenger cars~~.

b) Operation~~No person shall operate or cause or allow the operation~~ of a motor vehicle subject to this Section~~rule~~ at any time under any conditions of highway grade, load, acceleration or deceleration must not~~in such a manner as to~~ exceed the ~~following~~ limits at 40 CFR 202.20(a), incorporated by reference at 35 Ill. Adm. Code 900.106.~~:~~

~~1) On highways with speed limits of 35 miles per hour or less, 86 dB(A), measured with fast meter response at 50 feet from the centerline of lane of travel, or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103;~~

~~2) On highways with speed limits of more than 35 miles per hour, 90 dB(A), measured with fast meter response at 50 feet from the centerline of lane of travel, or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103.~~

c) ~~No person shall operate or cause or allow the operation~~ Operation of a motor vehicle subject to this Section~~rule~~, powered by an engine with an engine speed governor, must not exceed the standard for operation under the stationary test at 40 CFR 202.21(a), incorporated by reference at 35 Ill. Adm. Code 900.106.~~which generates a sound level in excess of 88 dB(A) measured with fast meter response at 50 feet from the longitudinal centerline of the vehicle or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103, when that engine is accelerated from idle with wide open throttle to governed speed with the vehicle stationary, transmission in neutral, and clutch engaged.~~

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 902.122 Standards Applicable to Motorcycles and Motor Driven Cycles

Operation of any motorcycle or motor driven cycle must comply with the motorcycle noise emission standards at 40 CFR 205.152(a) and the motorcycle exhaust systems noise emissions standards at 40 CFR 205.166, incorporated by reference at 35 Ill. Adm. Code 900.106.

~~a) This rule shall apply to all motorcycles and motor driven cycles.~~

~~b)~~ ~~No person shall operate or cause or allow the operation of a motor vehicle subject to this rule at any time or under any conditions of highway grade, load, acceleration or deceleration in such a manner as to exceed the following limits:~~

~~1)~~ ~~On highways with speed limits of 35 miles per hour or less, 80 dB(A), or 82 dB(A) when operating on a grade exceeding 3%, measured with fast meter response at 50 feet from the centerline of lane of travel, or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103;~~

~~2)~~ ~~On highways with speed limits of more than 35 miles per hour, 86 dB(A), measured with fast meter response at 50 feet from the centerline of lane of travel, or an equivalent sound level limit measured in accordance with procedures established under 35 Ill. Adm. Code 900.103.~~

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 902.123 Exception for ~~and Standards Applicable to~~ Motor Carriers Engaged in Interstate Commerce with Respect to Operations Regulated Under~~Pursuant to~~the Federal Noise Control Act of 1972

a) ~~Applicability 1)~~After the effective date of the federal standards contained in 40 CFR Part 202, ~~this rule shall apply~~ This Part applies to motor carriers engaged in interstate commerce with respect to noise emissions regulated by ~~such~~ federal standards. Motor carrier operations subject to~~determined pursuant to 35 Ill. Adm. Code 900.104 to be governed by~~ this Part are ~~rule shall be~~excepted from Sections~~Section~~ 902.101, 902.102 and 902.121.

b)~~2)~~ This Part applies~~rule shall apply to motor carriers with respect only~~ to the operation of ~~those~~ motor vehicles that~~of such carriers which~~ have a GVWR~~gross vehicle weight rating~~ or gross combination weight rating ~~in excess~~ of more than 10,000 pounds, and only when those~~such~~ motor vehicles are operated under the conditions specified in this Section below.

c~~3~~) Except as provided in subsection (d) ~~a subparagraph (4) of this paragraph (a)~~, this Part applies~~rule shall apply~~ to the total sound produced by ~~such~~ motor vehicles when operating under the specified conditions, including the sound produced by auxiliary equipment mounted on the~~such~~ motor vehicles.

d4) This Part does ~~rule shall~~ not apply to auxiliary equipment that~~which~~ is normally operated only when the transporting vehicle is stationary or is moving at a speed of 5 miles per hour or less. Examples of this~~such~~ equipment include~~, but are not limited to,~~ cranes, asphalt spreaders, ditch diggers, liquid or slurry pumps, air compressors, welders, and refuse compactors.

~~b)~~ ~~Equipment Standards~~

1) Visual exhaust system inspection

No motor carrier subject to this rule shall operate any motor vehicle of a type with respect to which this rule is applicable unless the exhaust system of such vehicle is:

A) Equipped with a muffler or other noise dissipative device;

B) Free from defects which affect sound reduction; and

C) Not equipped with any cutout, bypass or similar device.

2) Visual tire inspection

No motor carrier subject to this rule shall operate any motor vehicle of a type with respect to which this rule is applicable on a tire or tires having a tread pattern which as originally manufactured, or as newly retreaded, is composed primarily of cavities in the tread (excluding sipes and local chunking) which are not vented by grooves to the tire shoulder or circumferentially to each other around the tire. This subparagraph (2) shall not apply to any motor vehicle which is demonstrated by the motor carrier which operates it to be in compliance with the noise emission standard specified in paragraph (c) of this rule for operation on highways with speed limits of more than 35 miles per hour, if the demonstration is conducted at the highway speed limit in effect at the inspection location or, if speed is unlimited, the demonstration is conducted at a speed of 65 miles per hour.

c) Standards for Highway Operation

No motor carrier subject to this rule shall operate any motor vehicle of a type with respect to which this rule is applicable and which at any time or under any condition of highway grade, load, acceleration or deceleration generates a sound level in excess of 86 dB(A) measured on an open site with fast meter response at 50 feet from the centerline of lane of travel on highways with speed limits of 35 miles per hour or less; or 90 dB(A) measured on an open site with fast meter response at 50 feet from the centerline of lane of travel on highways with speed limits of more than 35 miles per hour.

d) Standard for Operation under Stationary Test

No motor carrier subject to this rule shall operate any motor vehicle of a type with respect to which this rule is applicable, and which is equipped with an engine speed governor, which generates a sound level in excess of 88 dB(A) measured on an open site with fast meter response at 50 feet from the

longitudinal centerline of the vehicle, when its engine is accelerated from idle with wide open throttle to governed speed with the vehicle stationary, transmission in neutral, and clutch engaged.

e) Additional Definitions Applicable Only to this Rule

1) Common carrier by motor vehicle: any person who holds himself out to the general public to engage in the transportation by motor vehicle in interstate or foreign commerce of passengers or property or any class or classes thereof for compensation, whether over regular or irregular routes.

2) Contract carrier by motor vehicle: any person who engages in transportation by motor vehicle of passengers or property in interstate or foreign commerce for compensation (other than transportation referred to in subparagraph (1) of this paragraph) under continuing contracts with one person or a limited number of persons either

A) for the furnishing of transportation services through the assignment of motor vehicles for a continuing period of time to the exclusive use of each person served or

B) for the furnishing of transportation services designed to meet the distinct need of each individual customer.

3) Gross combination weight rating: the value specified by the manufacturer as the loaded weight of a combination vehicle.

4) Gross vehicle weight rating: the value specified by the manufacturer as the loaded weight of a single vehicle.

5) Interstate commerce: the commerce between any place in a State and any place in another State or between places in the same State through another State, whether such commerce moves wholly by motor vehicle or partly by motor vehicle and partly by rail, express, water or air. This definition of "interstate commerce" for purposes of this rule is the same as the definition of "interstate commerce" in Section 203(a) of the Interstate Commerce Act (49 U.S.C. Section 303(a)).

6) Motor carrier: a common carrier by motor vehicle, a contract carrier by motor vehicle, or a private carrier of property by motor vehicle, as those terms are defined by paragraphs (14), (15), and (17) of Section 203(a) of the Interstate Commerce Act (49 U.S.C. 303(a)). The term "motor carrier" includes those entities which own and operate the subject motor vehicles, but not the drivers thereof, unless said drivers are independent truckers who both own and drive their own vehicles.

~~7)~~ ~~Open site: an area that is essentially free of large sound-reflecting objects, such as barriers, walls, board fences, signboards, parked vehicles, bridges or buildings.~~

~~8)~~ ~~Private carrier of property by motor vehicle: any person not included in terms "common carrier by motor vehicle" or "contract carrier by motor vehicle", who transports in interstate or foreign commerce by motor vehicle property of which such person is the owner, lessee, or bailee, when such transportation is for sale, lease, rent or bailment, or in furtherance of any commercial enterprise.~~

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 902.124 Horns and Other Warning Devices

The use of a horn and other warning device must comply with 625 ILCS 5/12-601.

~~a)~~ ~~No person shall sound a horn when upon a highway, except when reasonably necessary to insure safe operation. No person shall sound any horn on any motor vehicle for an unreasonable period of time or in a manner so as to circumvent enforcement of the operational standards contained in this Subpart B.~~

~~b)~~ ~~No person shall sound any siren, whistle or bell of any motor vehicle except as provided in Ill. Rev. Stat. 1981, ch. 95 1/2, par. 12-601(b).~~

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 902.125 Tire Noise

Operation of~~No person shall operate~~ a motor vehicle in ~~such~~ a manner resulting in~~as to cause or allow to be emitted~~ squealing, screeching or other such noise being emitted from the tires in contact with the ground is prohibited ~~because of rapid acceleration or excessive speed around corners or other such reason, except that~~. The noise resulting from emergency operation to avoid imminent danger is~~shall be~~ exempt from this ~~provision~~ Section.

(Source: Amended at 42 Ill. Reg._____, effective _____)

SUBPART C: EXCEPTIONS AND COMPLIANCE DATES FOR PART 902

Section 902.140 Exceptions

a) The standards and limitations of this Part 902 do~~shall~~ not apply to:

1) Any~~any~~ vehicle moved by human or animal powers;

2) Any~~any~~ vehicle moved by electrical power;

3) Anyany vehicle used exclusively upon stationary rails or tracks;

4) Anyany farm tractor;

5) Anyany antique vehicle, if licensed under Section 3-804 of the Illinois Vehicle Code [625 ILCS 5/3-804] ~~Ill. Rev. Stat. 1981, ch. 95 1/2, par. 3-804~~;

6) Anyany snowmobile, subject to 35 Ill. Adm. Code 905;

7) Anyany special mobile equipment;

8) Anyany vehicle while being used lawfully for racing competition or time racing events; and

9) Anyany lawn care maintenance equipment.

b) Section ~~Sections~~ 902.102 ~~and 902.123(b)(2)~~ doesshall not apply to any person who can show that a tread pattern as described in that Section~~those rules~~ was the result of wear and that the tire was not originally manufactured or newly retreaded with such a tread pattern.

c) The operational standards contained in this Part~~Sections 902.120 through 902.123 inclusive~~ doshall not apply to warning devices~~, such as horns and sirens;~~ or to emergency equipment and vehicles described in 40 CFR 202.12(e), incorporated by reference at 35 Ill. Adm. Code 900.106 ~~such as fire engines, ambulances, police vans, and rescue vans, when respond to emergency calls~~; to snow plows when in operation; or to tactical military vehicles.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 902.141 Compliance Dates (Repealed)

~~a) Except as otherwise provided in this rule, any person subject to the standards and limitations of this Part shall comply with such standards and limitations on and after November 30, 1977.~~

~~b) Every owner or operator of a motor vehicle subject to Section 902.102 shall comply with such rule on and after May 31, 1978.~~

~~c) Every owner or operator of a motor vehicle subject to Section 902.120(b)(2) or 902.121(b)(2) shall comply with such rule on and after May 31, 1978.~~

~~d) Every motor carrier subject to Section 902.123 shall comply with such rule on and after May 31, 1977.~~

(Source: Repealed at 42 Ill. Reg._____, effective _____)

Section 902.APPENDIX A Old Rule Numbers Referenced (Repealed)

~~The following table is provided to aid in referencing old Board rule numbers to section numbers pursuant to codification.~~

~~Old Part 3 of Chapter 8~~	~~35 Ill. Adm. Code Part 902~~
~~Rule 301~~	~~Section 902.101~~
~~Rule 302~~	~~Section 902.102~~
~~Rule 310~~	~~Section 902.120~~
~~Rule 311~~	~~Section 902.121~~
~~Rule 312~~	~~Section 902.122~~
~~Rule 313~~	~~Section 902.123~~
~~Rule 314~~	~~Section 902.124~~
~~Rule 315~~	~~Section 902.125~~
~~Rule 320~~	~~Section 902.140~~
~~Rule 321~~	~~Section 902.141~~

(Source: Repealed at 42 Ill. Reg._____, effective _____)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE H: NOISE
CHAPTER I: ILLINOIS POLLUTION CONTROL BOARD

PART 910
MEASUREMENT PROCEDURES FOR THE ENFORCEMENT
OF 35 ILL. ADM. CODE 900 & 901

Section

AUTHORITY: Implementing and authorized by Sections 25 and 27 of the Environmental Protection Act [415 ILCS 5/25 and 27].

SOURCE: Adopted in R03-9 at 30 Ill. Reg. 5594, effective March 10, 2006; amended in R18-19 at 42 Ill. Reg. _____, effective _____.

Section 910.100 General

This Part provides specifications for sound measurement equipment~~specifies the instrumentation to be used when conducting acoustical noise measurements~~ as well as~~and sets forth~~ the specific sound~~acoustical~~ measurement techniques to be ~~employed~~ used when conducting time-averaged sound level (L_{eq}) measurements~~. The instrumentation requirements and measurement techniques as more specifically set forth in this Part must be used in~~ ~~determining~~ to determine whether a noise source is ~~in compliance~~ compliant with 35 Ill. Adm. Code 900 and 901.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 910.102 Instrumentation

a) Sound Measuring Equipment:

1) Use anAn integrating sound level meter used alone or used in conjunction with an octave-band or 1/3 octave-band filter set or a real-time sound analyzer (octave-band or 1/3 octave-band) must conform that complies with the following standards incorporated by reference at 35 Ill. Adm. Code 900.106:

   A) ANSI/ASA S1.4-2014/Part 1/IEC 61672:1-20131983 (R2001) "American National Standard Electroacoustics – Sound Level Meters – Part 1: Specifications (a nationally adopted international standard) for Sound Level Meters, and ANSI S1.4 A-1985 "Amendment to ANSI S1.4-1983. ".

   B) ANSI/ASA S1.11-2014/Part 1/IEC 61260:1-20141986 (R1998) "American National StandardElectroacoustics - Specification for Octave-Band and Fractional-Octave-Band Analog and Digital Filters – Part 1: Specifications (a nationally adopted international standard).".

   C) ANSI/ASA S1.6-20161984 (R2001) "American National Standard Preferred Frequencies and Filter Band Center, Frequencies Frequency Levels, and Band Numbers for Acoustical Measurements.".

   D) ANSI/ASA S1.8-20161989 "American National Standard Reference Values for Levels Used in Quantities for Acoustics and Vibrations Vibrational Levels.".

   E) International Electrotechnical Commission, IEC 61672-1:2013 804-2000 "Electroacoustics Integrating/Averaging Sound Level Meters – Part 1: Specifications.".

2) Use aA magnetic tape recorder, graphic level recorder or other indicating device conforming withused must meet the requirements of the Society of Automotive Engineers (SAE) Recommended Practice J184 "Qualifying a Sound Data Acquisition System," August 2014November 1998, incorporated by reference at 35 Ill. Adm. Code 900.106.

3) The laboratory calibration of instrumentation used for acoustic measurement must beCalibrate sound measuring equipment traceable to the National Bureau of Standards, and must be performed no less often than at least once every 12 months.

4) For outdoor measurement, use microphone with an attached a windscreen must be attached to the microphone.

b) Weather Measuring Equipment:

1) Use an ~~An~~ anemometer and compass or other devices ~~must be used~~ to measure wind speed and direction in ~~accordance~~compliance with the manufacturer's recommended procedures.

2) Use a~~A~~ thermometer, designed to measure ambient temperature, ~~must be used~~ in ~~accordance~~compliance with the manufacturer's recommended procedures.

3) Use a~~A~~ hygrometer ~~must be used~~ in ~~accordance~~compliance with the manufacturer's recommended procedures to measure the relative humidity.

4) Use a~~A~~ barometer ~~must be used~~ in ~~accordance~~compliance with the manufacturer's recommended procedures to measure the barometric pressure.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 910.104 Measurement Techniques for 35 Ill. Adm. Code 900

~~Sound pressure level measurements are not required to establish~~A~~a~~ violation of 35 Ill. Adm. Code 900.102 (nuisance noise) can be established without sound pressure level measurement. However, sound pressure level measurements may be introduced as corroborating evidence when alleging a violation of 35 Ill. Adm. Code 900.102~~. I~~if ~~sound pressure level~~ measurements are collected in ~~accordance~~ compliance with the~~,~~ manufacturer's instructions ~~must be followed~~ for the sound measuring equipment. ~~used and~~ The sound measurement techniques in 35 Ill. Adm. Code 910.105 may be used as guidance in gathering data.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 910.105 Measurement Techniques for 35 Ill. Adm. Code 901

To determine a noise source's compliance with 35 Ill. Adm. Code 901, sound ~~Sound~~ pressure level measurements are ~~must be~~ obtained using ~~in accordance with~~ the following measurement techniques ~~to determine whether a noise source is in compliance with 35 Ill. Adm. Code 901~~:

a) Site Selection

1) ~~Measurements may be taken at o~~ One or more outdoor microphone positions ~~within the appropriate receiving land. Measurement instruments must be set up outdoors~~ may be chosen within the boundaries of the receiving land, as long as the positions are ~~for the purpose of determining whether a noise source is in compliance with 35 Ill. Adm. Code 901.~~ ~~2) Measurement instruments must be set up not less than~~ at least 25 feet (7.6 meters (m)) from the property ~~line-noise-source~~ line-noise-source.

The 25-foot ~~(7.6 m)~~ setback distance~~requirement~~ is from the noise source and not the property line unless the noise source is contiguous to the property line.

2~~3~~) Other measurement locations may be used for investigatory purposes, including ~~such as, but not limited to,~~ the following:

A) Determining the extent of noise pollution caused by the source of sound;

B) Determining the ambient; and

C) Analyzing those acoustical parameters that describe the sound source.

3~~4~~) For measurements of sound sources with no audible discrete tones, set up the microphones ~~should not be set up less than~~ at least 25 feet (7.6 m) from any reflective surface that may affect data. If microphones are ~~measurements must be taken~~ within 25 feet ~~(7.6 m)~~, determine the effect, if any, of the reflective surface on the measured data ~~must be determined~~.

4~~5~~) For measurements of sound sources with audible discrete tones~~.~~, set up the microphones ~~must not be set up less than~~ at least 50 feet (15.2 m) from any reflective surface that may affect data. If microphones are~~measurements must be taken~~ within 50 feet ~~(15.2 m)~~, determine the effect, if any, of the reflective surface on the measured data ~~must be determined~~.

5~~6~~) Microphones need to be at least 5 feet (1.5 m) from ~~Objects with~~ small objects ~~dimensions~~ (trees, posts, bushes, etc.) ~~must not be within 5 feet (1.5 m) of the microphone position~~. If microphones are ~~measurements must be taken~~ within 5 feet ~~(1.5 m)~~ of ~~such~~ small objects, determine the effect, if any, on the measured data ~~must be determined~~.

b) Instrumentation Set Up

1) Set up a microphone ~~A~~ tripod ~~must be set~~ at the chosen site~~. The tripod must be~~ extended to a height between 3 feet 8 inches (1.12 m) and 4 feet 10 inches (1.47 m) above ground.

2) Attach the~~A~~ microphone at the top of the tripod and connect it to the measuring instrument with~~must be attached to the appropriate end of~~ a 5-foot (1.5 m) or longer cable~~and must be affixed to the top of the tripod. The other end of the cable must be connected to the measuring instrument~~.

3) Adjust the ~~The~~ angle of incidence of the microphone ~~must be adjusted~~ to yield the flattest frequency response ~~in accordance~~compliant with the manufacturer's specifications.

4) Separate the ~~The~~ measuring instrument ~~must be separated~~ from the microphone ~~so as~~ to minimize any influence on the measurements, and minimize any~~. The~~ cable movement ~~must be minimized~~ during the measurement period.

c) Measurement Site Operation and Instrument Calibration

1) Before taking sound pressure level measurements, measure and record (near the measurement site):

A) Wind speed and direction;

B) Ambient temperature;

C) Relative humidity; and

D) Barometric pressure.

2) Turn the measuring instrument on and allow the instrument to stabilize. Monitor and record the battery condition of the calibrator and all measuring instruments.

3) Turn the calibrator on at its appropriate frequency. Allow the calibrator to stabilize and calibrate the measuring system according to the manufacturer's specifications. After the measuring system has been calibrated, remove the calibrator and attach a windscreen to the microphone.

4) Adjust the microphone to the angle of incidence that will yield the frequency response ~~in accordance~~compliant with the manufacturer's specifications.

5) Measure the sound pressure level data within the limitations of subsection (d) and according to the manufacturer's recommended procedures. Other sound pressure levels may be used for investigatory purposes, including ~~such as, but not limited to,~~ the following:

A) Determining the extent of noise pollution caused by the source of sound;

B) Determining the ambient; and

C) Analyzing those acoustical parameters that describe the sound source.

6) While sound measurements are being taken, maintain distance between the operator ~~must be separated from~~ and the microphone ~~so as~~ to minimize any influence on the measurements.

7) While measurements are being taken, make visual and aural surveillance of extraneous sound sources and varying wind conditions ~~must be made~~ to ~~insure~~ensure that the conditions of measurement are accurately known. Record any variations in these parameters that may affect data. Record the~~The~~ number and basis for the affected data block ~~must be recorded~~. When using a tape recorder, record voice commentary concerning conditions ~~will be recorded~~ on the cue track.

8) Minimize~~To minimize~~ wind effects on the microphone by taking~~,~~ sound measurements ~~must not be taken~~ when the wind velocity is less~~greater~~ than 12 miles per hour (5.4 m/second) at the microphone position.

9) For the purposes of data correction, determine the ambient sound at the measurement site ~~must be determined~~ by means of measurement or analysis.

10) After taking sound pressure level measurements, remove the windscreen and attach the calibrator to the microphone. Turn the calibrator on at its appropriate frequency. After allowing the calibrator to stabilize, monitor and record the measuring system response. If~~When~~ the measuring system response varies by more than ± 0.5 dB from the most recent field calibration, the sound pressure level measurements obtained since such most recent field calibration cannot be used for enforcement purposes.

11) Before removing the calibrator from the microphone, turn the calibrator off. If the ambient sound has not been determined by means of measurement, determine the noise floor of the measuring system. If the noise floor is within 10 dB of the measured sound pressure level data, record the~~such~~ noise floor measurements ~~must be recorded~~.

12) At the end of the sound survey, monitor and record the battery condition of the calibrator and all measuring instruments. Near the measurement site, measure and record:

A) Windspeed and direction;

B) Ambient temperature;

C) Relative humidity; and

D) Barometric pressure.

13) Record the physical and topographical description of the ground surface within the vicinity of the measurement site, survey site location, a description of the sound source, a diagram of the area, the location of reflective surfaces near the microphone, and the approximate location of the noise source relative to the microphone position.

14) A magnetic tape recorder may be used to preserve the raw data. Record calibration~~Calibration~~ signals ~~must be recorded~~ at the beginning and end of each tape as well as at intermediate times such as when relocating to a new measurement site. Record voice~~Voice~~ commentary concerning local conditions and affected data blocks~~must be recorded~~ on the cue track. Preserve the~~The~~ original tape recording~~must be preserved~~ for subsequent evaluation.

15) Any laboratory ~~Laboratory~~ analyses of ~~may be performed on~~ magnetic tape~~-~~ recorded field data must include a~~. A~~ description of the laboratory instrumentation and procedures along with a correlation of ~~must be recorded. Analyses used in~~ the laboratory analyses and~~must be correlated to~~ field measurement techniques.

d) Limiting Procedures for Specific Types of Data Acquisition

1) For measurements of non-impulsive sound with audible discrete tones, measure 1/3 octave-band sound pressure levels to determine if ~~must be obtained in determining whether~~ a noise source complies ~~is in compliance~~ with 35 Ill. Adm. Code 901.106.

2) For measurements of non-impulsive sound with no audible discrete tones, measure octave-band sound pressure levels to determine if ~~must be obtained in determining whether~~ a noise source complies~~is in compliance~~ with 35 Ill. Adm. Code 901.102 and 901.103.

e) Correction Factors

If necessary, apply correction factors rounded to the nearest 1/2 decibel ~~must be applied~~ to sound pressure level measurements. The correction factors applicable to the measurement system may include~~, but are not limited to,~~ corrections for windscreen interference and the sound pressure level difference between consecutive field calibrations. ~~Such~~ Use calibration correction factors ~~must~~ only ~~be used~~ to make negative corrections (subtraction from the field data). Do not add ~~In no case must such~~ calibration correction factors ~~be added~~ to the measured sound pressure levels ~~so as~~ to raise the sound pressure level field data. The

correction factors applicable to the measurement site may include~~, but are not limited to,~~ corrections for reflective surfaces and ambient sound.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 910.106 Protocols for Determination of Sound Levels

a) The raw data collection procedures ~~for the determination of~~ to determine equivalent continuous sound pressure level (L_{eq}) are described in this Section using as an example the determination of a 1-hour L_{eq} corrected for ambient. The following procedures must be used:

1) Using ~~s~~Small ~~b~~Blocks~~:~~

A) Divide the~~The~~ 1-hour interval ~~is divided~~ into many small blocks of time so that corruption of the data from short-term background transient sound and loss of data can be limited to the corrupted or bad blocks. The block duration measured in seconds ~~must~~ is ~~remain~~ fixed for any measurement hour. The duration must be neither less than 10 seconds nor greater than 100 seconds. For example, if the block duration is chosen to be 60 seconds (1 minute), then the data collection proceeds for 60, 1-minute periods of measurement.

B) The collected data for each block represents a block duration L_{eq} (or sound exposure level (SEL)) in octave-bands (or 1/3 octave-bands if prominent discrete tones may be present).

C) Delete data~~Data~~ for any block corrupted by one or more short-term background transient sounds ~~must be deleted~~.

D) After deleting corrupted data blocks, there will be a fixed number of "good" data blocks remaining. This number is designated as N_{PLNS}, where PLNS stands for Property ~~Line Noise Source~~ Line Noise Source. These remaining "good" blocks are ~~must be~~ numbered consecutively. The subscript "i" is used to denote the numbering of the blocks in time order after corrupted data blocks have been deleted.

E) The data for the N_{PLNS} remaining blocks are time averaged on an energy basis by octave (or 1/3 octave-band) using Equation 1 below. In this equation, two subscripts are used, i to designate time and j to designate the specific frequency, either an octave-band or 1/3 octave-band. The raw, 1-hour L_{eq} in the *j*th frequency band is given by:

$$L_{eqj} = 10\log\left(\frac{1}{N_{PLNS}}\sum_{i=1}^{N_{PLNS}} 10^{\left(\frac{L_{eqij}}{10}\right)}\right) \qquad \text{[Equation 1]}$$

where L_{eq} is the L_{eq} in the *j*th frequency band for the *i*th non-deleted data block.

F) In terms of SEL, the raw SEL in the *j*th frequency band is given by:

$$SEL_j = 10\log\left(\sum_{i=1}^{N_{PLNS}} 10^{\left(\frac{SEL_{ij}}{10}\right)}\right) \qquad \text{[Equation 2]}$$

G) The raw, 1-hour L_{eq} in the *j*th frequency band is given in terms of the corresponding SEL_j by:

$$L_{eqj} = SEL_j + 10\log\left(\frac{3600}{N_{PLNS}\Delta T}\right) \qquad \text{[Equation 3]}$$

Where T is the block duration in seconds, N_{PLNS} is the number of non-discarded data blocks, and 3600 is the number of seconds in an hour.

2) Continuous Data Collection~~:~~

A) Adjust the~~The~~ measuring instrument ~~must be adjusted~~ to continuously measure sound pressure and accumulate L_{eq} for each block of time. For convenience, the hour may be split into several smaller blocks such as 10, 6-minute blocks or 4, 15-minute blocks, etc.

B) A switch on the measuring instrument must be available to inhibit data collection whenever a short-term background transient sound occurs. Use this~~This~~ switch ~~shall be used~~ to prevent short-term background ambient sounds from corrupting the data.

C) Data collection must proceed for one hour. The energy average of the several measured L_{eqij} each weighted by the number of seconds actually accumulated during the i^{th} block results in the raw, 1-hour L_{eq} in each frequency band given by:

$$L_{eqj} = 10\log\left(\frac{1}{T_{PLNS}}\sum_{i=1}^{N_{PLNS}} T_i 10^{\left(\frac{L_{eqij}}{10}\right)}\right) \qquad \text{[Equation 4]}$$

Where L_{eqij} is the L_{eq} in the j^{th} frequency band for the i^{th} large block. T_i is the actual number of seconds of "good" data accumulated in the i^{th} block of time (e.g., 6 to 15 minutes); and

$$T_{PLNS} = \sum_{i=1}^{N_{PLNS}} T_i \qquad \text{[Equation 5]}$$

3) Minimum Date Collection Requirements~~data collection requirements:~~

A) Initial Measurement Duration. Measure the~~The~~ property~~ line noise source~~ line noise source ~~measurements must proceed~~ initially for one hour. Because of correction for short-term background transient sounds, actual reported data collection time T, in seconds, may be less than 3600 seconds (one hour).

i) If small blocks of data are used for data collection, then the total measurement duration in seconds, $T_{PLNS,}$ is given by N_{PLNS} T, where T is the length of each block in seconds and N_{PLNS} is the number of non-discarded blocks. If data inhibition is used for data collection, then T_{PLNS} is the number of non-inhibited seconds during the measurement hour. In either case, T_{PLNS} must be ~~no less than~~ at least 900 seconds.

ii) If very few blocks were used for data collection, then the duration of each block, T, may be too long and ~~should~~must be reduced.

iii) For either data collection method, sounds considered to be short-term transient may actually be part of the long-term background ambient and ~~should~~must be so redefined.

B) Extended Measurement Duration. If T_{PLNS} is less than 900 seconds during the first hour of measurements, modify the raw data collection procedures ~~must be~~ appropriately~~ modified~~ and take new measurements ~~must proceed~~ for an additional hour. If T_{PLNS} after combining the first and the second hour of measurements is also less than 900 seconds, then collect additional ~~the~~ raw data ~~collection must continue~~ using the data inhibition method or method employed during the second hour until T_{PLNS} is greater than or equal to 900 seconds.

4) Correction for Long-Term Background Ambient Sound~~:~~

A) The raw 1-hour L_{eq} must be corrected for long-term background ambient sound. Subsection (b) ~~of this Section~~ describes methods to obtain the long-term background ambient sound level in the j^{th} frequency band. The correction is dependent on the difference (in decibels) between the raw, 1-hour, j^{th} band property~~-line-noise-source~~ line noise source (~~:~~ L_{eqj}) and corresponding j^{th} band long-term background ambient sound level. The correction to be applied is as follows:

i) If the difference between the raw 1-hour L_{eq} and the long-term background ambient sound is larger than 10 decibels, then the correction is ~~must be~~ set to 0.

ii) If the difference between the raw 1-hour L_{eq} and the long-term background ambient sound difference is less than 3 decibels, then the j^{th} frequency-band level, L_{eqj}, ~~must be~~ is set ~~equal~~ to 0.

iii) If the difference between the raw 1-hour L_{eq} and the long-term background ambient sound is between 3 and 10 decibels, then the correction given in Table 1 below ~~must be~~ is subtracted from the raw, 1-hour property~~-line-noise-source~~ line noise source L_{eqj}

Table 1
Corrections in dB for long-term background ambient sound

Difference (dB)	Correction (dB)
3	3
4	2.3
5	1.7
6	1.3
7	1.0
8	0.7
9	0.6
10	0.5

B) The long-term background ambient corrected level is ~~must be~~ the property~~-line-noise-source~~ line noise source L_{eqj} reported for the j^{th} frequency band.

b) Obtaining the Background Ambient Sound Level~~background ambient sound level:~~

1) Measure the~~The~~ background ambient ~~must be measured for the purposes of this Section~~ during a 10-minute interval.

2) Long-term background ambient measurement procedures are similar to procedures to measure the property~~-line-noise-source~~ line noise source itself. Eliminating short-term background ambient transient sounds from the measurement of average long-term background ambient sound level, proceeds in a manner similar to the measurement of the property~~-line-noise-source~~ line noise source emissions themselves. The two methods for measurement are:

(A) to divide the 10-minute measurement into short blocks of data, or

(B) inhibit data collection when short-term background transient sounds occur. The same method must be used for gathering both the property~~--line-noise-source~~ line noise source data and the corresponding long-term background ambient data. The measurement procedures for each method are given in subsections (b)(3), (b)(4) and (b)(5) ~~of this Section~~:

3) Using Small Blocks of Data

A) Divide the~~The~~ 10-minute measurement of long-term background ambient ~~must be divided~~ into short measurement blocks. The duration of these blocks in seconds (T) must:

i) remain constant during the entire measurement, both when measuring the long-term background ambient and when measuring the property~~--line-noise-source~~ line noise source; and~~.~~

ii) ~~The duration of this measurement block in seconds, T, must~~ divide exactly (without remainder) into 600, and must be neither greater than 100 seconds nor less than 10 seconds.

B) Discard~~All~~ data for any measurement block corrupted by one or more short-term ambient transient sounds~~ must be discarded~~. The number of remaining, non-discarded measurement blocks is designated N_{BA}, where *BA* stands for background ambient.

C) The L_{eq} for each octave-band (or 1/3 octave-band) are time-averaged on an energy basis over the N_{BA} remaining measurement blocks to obtain average long-term background ambient L_{eq} per band. Equation 1 (see subsection (a) (1) (E) ~~of this Section~~) is used for this calculation with N_{BA} replacing N_{PLNS} as the number of

elemental blocks to be summed. The total duration of the measurement in seconds, T_{BA}, is given by N_{BA} multiplied by T.

4) Continuous Data Collection

A) Adjust the~~The~~ measuring instrument ~~must be adjusted~~ according to manufacturer's instructions to continuously measure sound pressure and accumulate (i.e. record) L_{eq}. A switch must be available to inhibit data collection whenever a short-term background transient sound occurs, (and on some instruments, a button may be available to delete the most recent, previous data).

B) Use the~~The~~ switches or buttons ~~must be used~~ to prevent short-term background ambient sounds from corrupting the data.

C) Data collection must proceed for 10 minutes. The result is the 10-minute, long-term background ambient L_{eq} in each band.

D) T_{BA} is the number of non-inhibited measurement seconds during the 10-minute measurement period.

5) The minimum duration, for either method, T_{BA} must be ~~no less than~~ at least 150 seconds. If T_{BA} is less than 150 seconds, then continue to measure ~~the measurement of~~ the long-term background ambient ~~must continue~~ beyond the original 10 minutes and until T_{BA} for the total long-term background ambient measurement is greater than or equal to 150 seconds.

6) Measurement Alternatives. The long-term background ambient noise should ideally be measured at the potential violation site just before measurement of the property-~~-line-noise-source-~~line noise source emissions. However, turning off the property-~~-line-noise-source-~~line noise source may not always be possible. The following are a hierarchical order of five procedures for obtaining the long-term background ambient noise. The first four procedures involve direct measurement; the fifth procedure provides for use of tables of values obtained from extensive measurements. These are not equivalent procedures but are ordered from what is considered to be the most accurate to what is considered to be the least accurate procedure.

A) Direct Measurement Procedure-1~~2~~: With the property-~~-line-noise-source-~~line noise source (PLNS) turned off, measure the long-term background ambient noise within the hour before or within the hour after measurement of the PLNS emissions at the location where the PLNS measurements are being taken and with the measurement equipment used for the PLNS measurements.

B) Direct Measurement Procedure-2: With the PLNS turned off, measure the long-term background ambient noise during a similar time period in terms of background ambient sound level, within one to 24 hours before, or within one to 24 hours after measurement of the PLNS emissions at the location where the PLNS measurements are being taken and with the measurement equipment used for the PLNS.

C) Direct Measurement Procedure-3: With the PLNS turned off, measure the long-term background ambient noise during some other acoustically similar period within one to 30 days before, or within one to 30 days after measurement of the PLNS emissions. This alternate long-term background ambient measurement time might be a Saturday night or anytime during a Sunday or holiday. The measurements would be made at the location where the PLNS measurements are being taken and with the measurement equipment (or like equipment) used for the PLNS measurement.

D) Direct Measurement Procedure-4: With the PLNS turned off, measure the long-term background ambient noise during some other acoustically similar period within 30 to 90 days before, or within 30 to 90 days after measurement of the PLNS emissions. These measurements would be made at the location where the PLNS measurements are being taken and with the measurement equipment (or like equipment) used for the property~~- line noise source~~ line noise source measurements.

E) Measurement Procedure-5: Tables of Long-Term Background Ambient Noise. If~~Where~~ none of the alternatives can be used, use the applicable long-term background ambient data taken from Tables A through D in Appendix A of this Part. These tables are organized by predominant land use and time of day (daytime or nighttime). There are separate tables for octave- and 1/3- octave-bands. The background environments presented in the table are based on extensive measurements conducted in the Chicago area and are divided into the five categories listed in this subsection (b)(6) compliant~~given below in accordance~~ with G.L. Bonvallet, "Levels and Spectra of Traffic, Industrial, and Residential Area Noise~~;~~", Journal of the Acoustical Society of America, 23 (4), pp 435-439, July 1951; and Dwight E. Bishop and Paul D. Schomer, Handbook of Acoustical Measurements and Noise Control, Chapter 50, Community Noise Measurements, 3rd Edition, Cyril M Harris, Editor, McGraw-Hill Book Co., New York (1991).

i) Category 1: Noisy Commercial and Industrial Areas. Very heavy traffic conditions, such as in busy downtown commercial areas, at intersections of mass transportation and other vehicles, including the Chicago Transit Authority trains, heavy motor trucks and other heavy traffic, and street corners where motor buses and heavy trucks accelerate.

ii) Category 2: Moderate Commercial and Industrial Areas, and Noisy Residential Areas. Heavy traffic areas with conditions similar to Category 1~~subsection (b)(6)(E)(i) of this Section~~ but with somewhat less traffic, routes of relatively heavy or fast automobile traffic but where heavy truck traffic is not extremely dense, and motor bus routes.

iii) Category 3: Quiet Commercial and Industrial Areas, and Moderate Residential Areas. Light traffic conditions where no mass transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at low speeds. Residential areas and commercial streets and intersections with little traffic comprise this category.

iv) Category 4: Quiet Residential Areas. These areas are similar to Category 3 ~~in subsection (b)(6)(E)(iii) of this Section~~ but, for this group, the background is either distant traffic or is unidentifiable.

v) Category 5: Very Quiet, Sparse Suburban or Rural Areas. These areas are similar to Category 4 ~~subsection (b)(6)(E)(iv) of this Section~~ but are usually in unincorporated areas and, for this group, there are few if any near neighbors.

(Source: Amended at 42 Ill. Reg._____, effective _____)

Section 910.107 Measurement Techniques for ~~Highly-Impulsive~~ Highly Impulsive Sound Under 35 Ill. Adm. Code 901.104.

a) Measurement of ~~highly-impulsive~~ highly impulsive sound under 35 Ill. Adm. Code 901.104 can be made using ~~in~~ two distinct and equally valid ways specified in subsections (b) and (c), namely the general method and the controlled test method.

b) General Method: The general method is to measure the 1-hour, A-weighted L_{eq} (not the octave-band or 1/3 octave-band levels) using essentially one of the two procedures described in Sections 910.105 and 910.106.

1) The procedure using small blocks of time to collect data is as follows:

A) Divide the~~The~~ 1-hour interval ~~must be divided~~ into small blocks of time and measure the A-weighted L_{eq} ~~must be measured~~ for each of these ~~small~~ blocks ~~of time~~. L_{eq} is ~~must be~~ measured for the entire hour, but data collection ~~must be~~is inhibited whenever a short-term background transient sound occurs.

B) The duration of each block is~~must be~~ held constant during the hour. This duration in seconds divides ~~must divide~~ exactly into 900, and is~~must be~~ neither greater than 100 seconds nor less than 10 seconds.

C) Discard the~~The~~ data for any block corrupted by one or more short-term background ambient sounds ~~must be discarded~~.

~~2)~~ ~~The continuous data collection procedure is as follows:~~

~~A)~~ ~~L_{eq} must be measure for the entire hour.~~

~~B)~~ ~~Data collection must be inhibited whenever a short-term background transient sound occurs~~.

2~~3~~) Correction for the Long-Term Background Ambient Sound~~long-term background ambient sound~~. Correct the raw 1-hour L_{eq} for long-term ambient sound ~~must be accomplished~~ using the procedures~~provisions~~ of~~all of the other procedures and requirements enumerated in~~ Sections 910.105 and 910.106~~. These requirements must be complied with~~ to determine an A-weighted, 1-hour, background-ambient-corrected L_{eq} for the highly impulsive property ~~line noise source~~ line noise source under study.

c) Controlled Test Method: ~~For this method, the following procedures must be used:~~

1) General Measurement Description

A) The sound exposure per impulse from each separate individual impulsive source is measured.

B) The total sound exposure per hour from each source is the sound exposure per event multiplied by the number of events per hour.

C) The grand total sound exposure (SE) per hour is the sum of the sound exposures per hour from each of the separate individual sources.

D) The reported SEL is obtained from the grand total sound exposure (SE) per hour using the following:

$SEL = 10 \log (SE) + 94$ [Equation 7]

E) The equivalent level, L_{eq}, corresponding to a SEL measured or predicted for one hour (3600 seconds) is given by:

$L_{eq} = SEL - 10 \log (3600)$ [Equation 8]

2) Determination of Sound Exposure Per Event~~sound exposure per event must be as follows~~:

A) Determine the~~The~~ sound exposure per event from each, separate, individual source ~~must be determined~~ by measuring the total A-weighted sound exposure for about 10 repetitions of the~~this~~ source. This set of about 10 measurements may be performed continuously over a short period of time, or ~~this set of measurements may be performed~~ over a discontinuous set of measurement periods. In either case, the total measurement duration must be less than 100 seconds.

B) The~~These~~ separate, individual property~~ line noise source~~ line noise source ~~controlled~~ measurements collected under subsection (a) must be free of any short-term ambient sounds. If any short-term background transient sounds occur during these measurements, repeat~~then~~ the measurements ~~must be repeated~~ until ~~measurement~~ data, free of any corrupting short-term background ambient sounds, are obtained.

C) Correct the~~The~~ total measured A-weighted sound exposure for the~~this~~ group of about 10 repetitions ~~must be corrected~~ for long-term background ambient by subtracting the A-weighted long-term background ambient sound exposure, which is~~. The sound exposure value subtracted must be~~ the long-term A-weighted background ambient sound exposure per second multiplied by the number of seconds used to measure the several source repetitions.

D) ~~The reported Source:~~ A-weighted sound exposure per event is ~~must be~~ the total corrected sound exposure divided by the number of source repetitions measured.

E) Measure the long-term~~The~~ background ambient ~~must be measured~~ for a short time, at least 30 seconds, as near in time to the source measurements as possible, but within ½ hour. The total A-weighted long-term background ambient sound exposure per

second is the total measured long-term background ambient sound exposure divided by the number of seconds of background ambient measurement.

F) There must be no short-term background ambient sounds present during the measurement of the long-term background ambient. If any short-term background transient sounds occur during these measurements, repeat~~then~~ the measurements ~~must be repeated~~ until long-term background ambient measurement data, free of any corrupting short-term background ambient sound, are obtained.

(Source: Amended at 42 Ill. Reg._____, effective _____)