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Illinois Noise Statutes

Environmental Protection Act Chapter 415

Sec. 25. The Board, pursuant to the procedures prescribed in Title VII of this Act, may adopt regulations prescribing limitations on noise emissions beyond the boundaries of the property of any person and prescribing requirements and standards for equipment and procedures for monitoring noise and the collection, reporting and retention of data resulting from such monitoring.

The Board shall, by regulations under this Section, categorize the types and sources of noise emissions that unreasonably interfere with the enjoyment of life, or with any lawful business, or activity, and shall prescribe for each such category the maximum permissible limits on such noise emissions. The Board shall secure the co-operation of the Department in determining the categories of noise emission and the technological and economic feasibility of such noise level limits.

In establishing such limits, the Board, in addition to considering those factors set forth in Section 27 of this Act, shall consider the adverse ecological effects on and interference with the enjoyment of natural, scenic, wilderness or other outdoor recreational areas, parks, and forests occasioned by noise emissions from automotive, mechanical, and other sources and may establish lower permissible noise levels applicable to sources in such outdoor recreational uses.

No Board standards for monitoring noise or regulations prescribing limitations on noise emissions shall apply to any organized amateur or professional sporting activity except as otherwise provided in this Section. Baseball, football or soccer sporting events played during nighttime hours, by professional athletes, in a city with more than 1,000,000 inhabitants, in a stadium at which such nighttime events were not played prior to July 1, 1982, shall be subject to nighttime noise emission regulations promulgated by the Illinois Pollution Control Board; however, the following events shall not be subject to such regulations:

1. baseball World Series games, league championship series games and other playoff games played after the conclusion of the regular season, and baseball All Star games; and
2. sporting events or other events held in a stadium which replaces a stadium not subject to such regulations and constructed within 1500 yards of the original stadium by the Illinois Sports Facilities Authority.

For purposes of this Section and Section 24, "beyond the boundaries of his property" or "beyond the boundaries of the property of any person" includes personal property as well as real property. (Source: P.A. 89-445, eff. 2-7-96.)

Sec. 27. Rulemaking.

- a. The Board may adopt substantive regulations as described in this Act. Any such regulations may make different provisions as required by circumstances for different contaminant sources and for different geographical areas; may apply to sources outside this State causing, contributing to, or threatening environmental damage in Illinois; may make special provision for alert and abatement standards and procedures respecting occurrences or emergencies of pollution or on other short-term conditions constituting an acute danger to health or to the environment; and may include regulations specific to individual persons or sites. In promulgating regulations under this Act, the Board shall take into account the existing physical conditions, the character of the area involved, including the character of surrounding land uses, zoning classifications, the nature of the existing air quality, or receiving body of water, as the case may be, and the technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution. The generality of this grant of authority shall only be limited by the specifications of particular classes of regulations elsewhere in this Act.

No charge shall be established or assessed by the Board or Agency against any person for emission of air contaminants from any source, for discharge of water contaminants from any source, or for the sale, offer or use of any article.

Any person filing with the Board a written proposal for the adoption, amendment, or repeal of regulations shall provide information supporting the requested change and shall at the same time file a copy of such proposal with the Agency and the Department of Natural Resources. To aid the Board and to assist the public in determining which facilities will be affected, the person filing a proposal shall describe, to the extent reasonably practicable, the universe of affected sources and facilities and the economic impact of the proposed rule.

- b. Except as provided below and in Section 28.2, before the adoption of any proposed rules not relating to administrative procedures within the Agency or the Board, or amendment to existing rules not relating to administrative procedures within the Agency or the Board, the Board shall:
 1. request that the Department of Commerce and Community Affairs conduct a study of the economic impact of the proposed rules. The Department may within 30 to 45 days of such request produce a study of the economic impact of the proposed rules. At a minimum, the economic impact study shall address (A) economic, environmental, and public health benefits that may be achieved through compliance with the proposed rules, (B) the effects of the proposed rules on employment levels, commercial productivity, the economic growth of small businesses with 100 or less employees, and the State's overall economy, and (C) the cost per unit of pollution reduced and the variability in cost based on the size of the facility and the percentage of company revenues expected to be used to implement the proposed rules; and
 2. conduct at least one public hearing on the economic impact of those new rules. At least 20 days before the hearing, the Board shall notify the public of the hearing and make the economic impact study, or the Department of Commerce and Community Affairs' explanation for not producing an economic impact study, available to the public. Such public hearing may be held simultaneously or as a part of any Board hearing considering such new rules.

In adopting any such new rule, the Board shall, in its written opinion, make a determination, based upon the evidence in the public

hearing record, including but not limited to the economic impact study, as to whether the proposed rule has any adverse economic impact on the people of the State of Illinois.

- c. On proclamation by the Governor, pursuant to Section 8 of the Illinois Emergency Services and Disaster Act of 1975, that a disaster emergency exists, or when the Board finds that a severe public health emergency exists, the Board may, in relation to any proposed regulation, order that such regulation shall take effect without delay and the Board shall proceed with the hearings and studies required by this Section while the regulation continues in effect.

When the Board finds that a situation exists which reasonably constitutes a threat to the public interest, safety or welfare, the Board may adopt regulations pursuant to and in accordance with Section 5-45 of the Illinois Administrative Procedure Act.

- d. To the extent consistent with any deadline for adoption of any regulations mandated by State or federal law, prior to initiating any hearing on a regulatory proposal, the Board may assign a qualified hearing officer who may schedule a prehearing conference between the proponents and any or all of the potentially affected persons. The notice requirements of Section 28 shall not apply to such prehearing conferences. The purposes of such conference shall be to maximize understanding of the intent and application of the proposal, to reach agreement on aspects of the proposal, if possible, and to attempt to identify and limit the issues of disagreement among the participants to promote efficient use of time at hearing. No record need be kept of the prehearing conference, nor shall any participant or the Board be bound by any discussions conducted at the prehearing conference. However, with the consent of all participants in the prehearing conference, a prehearing order delineating issues to be heard, agreed facts, and other matters may be entered by the hearing officer. Such an order will not be binding on nonparticipants in the prehearing conference. (Source: P.A. 90-489, eff. 1-1-98; 91-357, eff. 7-29-99.)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE H: NOISE

CHAPTER I: POLLUTION CONTROL BOARD

PART 900
GENERAL PROVISIONS

Section

- 900.101 Definitions
- 900.102 Prohibition of Noise Pollution
- 900.103 Measurement Procedures
- 900.104 Burden of Persuasion Regarding Exceptions
- 900.105 Severability

- Appendix A Old Rule Numbers Referenced

AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1985, ch. 111 1/2, pars. 1025 and 1027).

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.

Section 900.101 Definitions

Except as hereinafter stated and unless a different meaning of a term is clear from its context, the definitions of terms used in this Chapter shall be the same as those used in the Environmental Protection Act. All definitions of acoustical terminology shall be in conformance with those contained in American National Standards Institute (ANSI) §1.1 - 1960 "Acoustical Terminology." As used in 35 Ill. Adm. Code 900 through 905, the following terms mean:

A-Weighted Sound Level: dB(A), in decibels, a frequency weighted sound pressure level, determined by the use of the metering characteristics and A-weighted network specified in ANSI §.4-1971 (R. 1976) "Specification for Sound Level Meters" and the latest revisions thereof.

AHRA: American Hot Rod Association or its successor body.

ANSI: American National Standards Institute or its successor bodies.

Antique vehicle: a motor vehicle that is more than 25 years of age or 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 more than 20 years old which is not used as fire-fighting equipment but is used only for the purpose of exhibition or demonstration.

Background Sound Level: the A-weighted sound level, measured in accordance with the procedures specified in Section 900.103, which is exceeded 90 percent of the time during the period of observation, during which sounds from motor racing facilities are inaudible. The period of observation need not necessarily be contiguous; however, the period of observation must be at least of 10 minutes duration.

Bus: every motor vehicle designed for carrying more than 10 passengers and used for the transportation of persons; and every 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 the metering characteristics and C-weighted network specified in ANSI document §1.4-1971 (R. 1976) "Specification for Sound Level Meters."

"Construction: on-site erection, fabrication, installation, alteration, demolition or removal of any structure, facility, or addition thereto, including all related activities including, but not restricted to, clearing of land, earth-moving, blasting and landscaping.

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

dB(A): see "A-weighted Sound Level."

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

Decibel (dB): a unit of measure, on a logarithmic scale to the base 10, of the ratio of the magnitude of a particular sound pressure to a standard reference pressure, which, for purposes of this Chapter, shall be 20 micronewtons per square meter (uN/m²).

Drag racing: any acceleration contest between two racing vehicles racing from a standing start over a precisely measured, straight line course.

Drag racing facility: any motor racing facility upon which is conducted drag racing.

Drag racing vehicle: any racing vehicle which is participating in a drag race at a drag racing facility.

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 motor racing facility: any motor racing facility, the construction of which commenced prior to August 10, 1973.

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

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

Fast Dynamic Characteristic: the dynamic characteristic specified as fast in ANSI §1.4-1971 (R. 1976) "Specification for Sound Level Meters" and the latest revision thereof.

Fast meter response: as specified in ANSI §1.4-1971, or subsequent revisions.

Gross Vehicle Weight (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.

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

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

IHRA: International Hot Rod Association or its successor body.

Leq: equivalent continuous sound pressure level in decibels: ten times the logarithm to the base ten of the ratio of a time-mean-square sound pressure to the square of reference sound pressure. The reference pressure is 20 micronewtons per square meter.

Midget racing vehicle: a front engine, single seat, openwheel racing car smaller and of lesser engine displacement than standard cars of the type.

Motor racing facility: any facility or course upon which is conducted motor racing activities or events.

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

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

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

Motorcycle racing: any racing event between two or more motorcycles.

Motorcycle racing facility: any motor racing facility upon which is conducted motorcycle racing, except oval racing facilities or drag racing facilities.

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

NHRA: National Hot Rod Association or its successor body.

New motor racing facility: any motor racing facility, the construction of which commenced on or after August 10, 1973.

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

Nighttime hours: 20:00 pm to 7:00 am, local time.

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

Octave band sound pressure level: the sound pressure level for the sound being measured contained within the specified octave band. The reference pressure is 20 micronewtons per square meter.

Oval racing: any contest between two or more racing vehicles on a closed or oval racing surface.

Oval racing facility: any motor racing facility, upon which is conducted oval racing.

Oval racing vehicle: any racing vehicle which is participating in an oval race at an oval racing facility.

Passenger car: a motor vehicle designed for the carrying of not more than ten persons, including a multi-purpose passenger vehicle, except any motor vehicle of the second division as defined in Ill. Rev. Stat. 1981, ch. 95-1/2, par. 1-146, and except any motorcycle or motor driven cycle. t+1

Person: any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this State, any other State or political subdivision or agency thereof 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.

Prominent discrete tone: sound, having a one-third octave band sound pressure level which, when measured in a one-third octave band at the preferred frequencies, exceeds the arithmetic average of the sound pressure levels of the two adjacent one-third octave bands on either side of such one-third octave band by:

5 dB for such one-third octave band with a center frequency from 500 Hertz to 10,000 Hertz, inclusive. Provided: such one-third octave band sound pressure level exceeds the sound pressure level of each adjacent one-third octave band, or;

8 dB for such one-third octave band with a center frequency from 160 Hertz to 400 Hertz, inclusive. Provided: such one-third octave band sound pressure level exceeds the sound pressure level of each adjacent one-third octave band, or;

15 dB for such one-third octave band with a center frequency from 25 Hertz to 125 Hertz, inclusive. Provided: such one-third octave band sound pressure level exceeds the sound pressure level of each adjacent one-third octave band.

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

Racing vehicle: every self-propelled device, in, upon or by which any person may be transported and which is participating in a motor racing activity or event at a motor racing facility.

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 Standard Land Use Coding Manual (SLUCM) Codes 110 through 190 and those portions of land used as specified by SLUCM Code 6741 used for sleeping.

SAE: Society of Automotive Engineers.

Slow Dynamic Characteristic: the dynamic characteristic specified as "Slow" in ANSI document §1.4-1971 (R. 1976) "Specification for Sound Level Meters."

SLUCM: the Standard Land Use Coding Manual (1969, United States Government Printing Office) which designates land activities by means of numerical codes.

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: an oscillation in pressure in air.

Sound level: in decibels, a weighted sound pressure level, determined by the use of metering characteristics and frequency weightings specified in ANSI §1.4-1971 "Specification for Sound Level Meters."

Sound pressure level: in decibels, 20 times the logarithm to the base 10 of the ratio of the magnitude of a particular sound pressure to the standard reference pressure. The standard reference pressure is 20 micronewtons per square meter.

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, levelling 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.

Special-motor-racing-event: any motor racing event held on two consecutive days or less in which a substantial number of out-of-state motor racing vehicles are competing and which has been designated as such a special-motor-racing-event by the owner or operator of the motor racing facility.

Sports car: any automobile which meets the requirements and specifications of the General Competition Rules of the Sports Car Club of America, or its successor body, or any other sports car organization.

Sports car racing: any competitive event involving one or more sports cars.

Sports car racing facility: any motor racing facility upon which is conducted sports car racing.

Sports car racing vehicles: any racing vehicle which is participating in a sports car race at a sports car racing facility.

Sprint racing vehicle: a front-engined open wheel racing car used especially on short dirt tracks.

Supercharged racing vehicle: a racing vehicle equipped with a blower or compressor for increasing the volume air charge of an internal combustion engine over that which would be drawn in through the pumping action of the pistons.

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.

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 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 which 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 which 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 muffler which is free from defects which affect its sound reduction. Such muffler shall be free of visible defects such as holes and other acoustical leaks.

(Source: Amended at 6 Ill. Reg. 10960, effective September 1, 1982)

Section 900.102 Prohibition of Noise Pollution

No person shall cause or allow the emission of sound beyond the boundaries of his property, as property is defined in Section 25 of the Illinois Environmental Protection Act, so as to cause noise pollution in Illinois, or so as to violate any provision of this Chapter.

Section 900.103 Measurement Procedures

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

The Agency may adopt procedures which set forth criteria for the measurement of sound. Such procedures shall be in substantial conformity with standards and recommended practices established by the American National Standards Institute, Inc. (ANSI) or the Society of Automotive Engineers, Inc. (SAE), and the latest revisions thereof, including ANSI S1.1-1960, ANSI §1.8-1969, ANSI §1.2-1962, and SAE J-184. 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 Ill. Rev. Stat. 1985, ch. 127, par. 1001 et. seq.

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

All measurement and all measurement procedures to determine whether emissions of sound comply with 35 Ill. Adm. Code 901 shall be in substantial conformity with ANSI §1.6-1967, ANSI §1.4-1971 -- Type I Precision, ANSI §1.11-1966, and ANSI §1.13-1971 Field Method, and shall with the exception of measurements to determine whether emissions of sound comply with 35 Ill. Adm. Code 901.109, be based on Leq averaging, as defined in 35 Ill. Adm. Code 900-101, using a reference time of one hour. All such measurements and measurements procedures shall correct or provide for the correction of such emissions for the presence of ambient noise as defined in ANSI §1.13-1971.

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

1) Measurement procedures to determine whether emissions of sound comply with 35 Ill. Adm. Code 902.120 through 902.123 shall be in substantial conformity with ANSI §1.4-1971 -- Type I Precision or Type II General Purpose, and ANSI §1.13-1971 Field Method, provided that procedures for measurement under 35 Ill. Adm. Code 902.123 shall be in substantial conformity with those established by the U.S. Department of Transportation pursuant to Section 18 of the Federal Noise Control Act of 1972 42 U.S.C. §4901 et seq.

2) The Agency may provide for measurement at distances other than the 50 feet specified in 35 Ill. Adm. Code 902.120 through 902.123 provided that 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. 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).

d) Procedures Applicable only to 35 Ill. Adm. Code 903

1) Measurement procedures for 35 Ill. Adm. Code 903 shall be in substantial conformity with ANSI §1.4-1971 Type 1 Precision

or Type 2 General Purpose and ANSI §1.13-1971 - Field Method.

2) The Agency may provide for measuring sound emission at distances other than 50 feet specified in 35 Ill. Adm. Code 903.162, provided that correction factors are applied so that the sound levels so determined are substantially equivalent to those measured at 50 feet.

e) Procedures Applicable only to 35 Ill. Adm. Code 905

1) Measurement procedures to determine whether emissions of sound comply with 35 Ill. Adm. Code 905.102(a) and 905.103(a) (1) shall be in substantial conformity with ANSI §1.4-1971 Type 1 Precision or Type 2 General Purpose and SAE Recommended Practice J192a, "Exterior Sound Level for Snowmobiles".

2) Measurement procedures to determine whether emissions of sound comply with 35 Ill. Adm. Code 905.102(b) and 905.103(a) (2) shall be in substantial conformity with ANSI §1.4-1971 Type 1 Precision or Type 2 General Purpose and SAE Recommended Practice J1161, "Operational Sound Level Measurement Procedure for Snow Vehicles".

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, Ill. Rev. Stat. 1985, ch. 127, par. 1001 et seq.

(Source: Amended at 11 Ill. Reg. 3121, effective January 28, 1987)

Section 900.104 Burden of Persuasion Regarding Exceptions

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.

Section 900.105 Severability

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

Section 900.APPENDIX A Old Rule Numbers Referenced

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

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

901.101	Classification of Land According to Use
901.102	Sound Emitted to Class A Land
901.103	Sound Emitted to Class B Land

901.104	Impulsive Sound
901.105	Impact Forging Operations
901.106	Prominent Discrete Tones
901.107	Exceptions
901.108	Compliance Dates for Part 901
901.109	Impulsive Sound from Explosive Blasting
901.110	Amforge Operational Level
901.111	Modern Drop Forge Operational Level
901.112	Wyman-Gordon Operational Level
901.113	Wagner Casting Site-Specific Operational Level
901.114	Moline Forge Operational Level
901.115	Cornell Forge Hampshire Division Site-Specific Operational Level
901.116	Forgings and Stampings, Inc. Operational Level
901.117	Rockford Drop Forge Company Operational Level
901.118	Atlas Forgings Division of Scot Forge Operational Level
901.119	Clifford-Jacobs Operational Level
901.120	C.S. Norcross Operational Level
901.121	Vaughan & Bushnell Operational Level

APPENDIX A	Old Rule Numbers Referenced
APPENDIX B	Standard Land Use Coding System

AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1985, ch. 111 1/2 pars. 1025 and 1027).

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.

Section 901.101 Classification of Land According to Use

a) Class A land shall include all land used as specified by SLUCM Codes 110 through 190 inclusive, 651, 674, 681 through 683 inclusive, 691, 711, 762, 7121, 7122, 7123 and 921.

b) Class B land shall include all land used as specified by SLUCM Codes 397, 471 through 479 inclusive, 511 through 599

inclusive, 611 through 649 inclusive, 652 through 673 inclusive, 675, 692, 699, 7124, 7129, 719, 721, 722 except 7223, 723 through 761 inclusive except 7311, 769 through 790 inclusive, and 922.

c) Class C land shall include all land used as specified by SLUCM Codes 211 through 299 inclusive, 311 through 396 inclusive, 399, 411 except 4111, 412 except 4121, 421, 422, 429, 441, 449, 460, 481 through 499 inclusive, 7223 and 7311 used for automobile and motorcycle racing, and 811 through 890 inclusive.

d) A parcel or tract of land used as specified by SLUCM Code 81, 83, 91, or 922, when adjacent to Class B or C land may be classified similarly by action of a municipal government having zoning jurisdiction over such land. Notwithstanding any subsequent changes in actual land use, land so classified shall retain such B or C classification until the municipal government removes the classification adopted by it.

Section 901.102 Sound Emitted to Class A Land

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

Section 901.103 Sound Emitted to Class B Land

Except as elsewhere in this Part provided, no person shall cause or allow the emission of sound from any property-line-noise-source located on any Class A, B or C land to any receiving Class B land which exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within such receiving Class B land, provided, however, that no measurement of sound pressure levels shall be made less than 25 feet from such property-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

Section 901.104 Impulsive Sound

Except as elsewhere in this Part provided, no person shall cause or allow the emission of impulsive sound from any property-line-noise-source located on any Class A, B, or C land to any receiving Class A or B land which exceeds the allowable A-weighted sound levels, measured with fast dynamic characteristic, specified in the following table when measured at any point within such receiving Class A or B land, provided, however, that no measurement of sound levels shall be made less than 25 feet from such property-line-noise-source.

Classification of Land on which Property-Line Noise-Source is Located	Allowable A-weighted Sound Levels in Decibels of Impulsive Sound Emitted to Receiving Class A or B Land		
	Class B Land	Class A Land	
		Daytime	Nighttime
Class A Land	50	50	45
Class B Land	57	50	45
Class C Land	61	56	46

(Source: Amended at 11 Ill. Reg. 3136, effective January 28, 1987)

Section 901.105 Impact Forging Operations

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

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

- 2) Nighttime hours shall mean those 8 hours between 10:00 p.m. and 7:00 a.m. which are not part of the 16 continuous daytime hours.

- 3) The reference time for Leq, as defined in 35 Ill. Adm. Code 900.101 is one hour.

- 4) New Impacting Forging Operation is that property-line-noise-source comprised of impact forging operation on which construction began after September 1, 1982.

- 5) Existing Impact Forging Operation is that property-line-noise-source comprised of impact forging operations which are in existence on September 1, 1982,

b) Emission Limitations for New Impact Forging Operation No impact forging operation shall cause or allow the emission of impulsive sound to any receiving Class A or B land which exceeds the allowable sound levels specified in the following table when measured at any point within such receiving land, provided however, that no measurement of sound levels shall be made less than 25 feet from such new impact forging operation's property-line.

Allowable Impulsive Sound Levels Emitted		
To Class A or B Land from New		
Impact Forging Operation		
Class B Land	Class A Land	
	Daytime	Nighttime
59.5Leq	53.5 Leq	48.5 Leq

c) Limitations for Existing Impact Forging Operation

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

Allowable Impulsive Sound Levels Emitted

To Class A or B Land from Existing

Impact Forging Operation

Class B Land

Class A Land

64.5Leq

Daytime
58.5Leq

Nighttime
53.5 Leq

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

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

2) Any existing impact forging operation seeking a permanent site specific operational level must submit 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 subparagraph (c) emitted by the petitioner into the community, in 5 decibel increments measured in Leq, shown on the map of the community.

E) The number of residences exposed to sound levels in excess of those permitted by subparagraph (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 which justify the permanent site specific allowable operational level sought by petitioner.

3) An existing impact forging operation seeking a permanent site specific operational level shall prepare and file its petition with the Board and Agency as applicable no later than December 1, 1983.

4) The Agency shall prepare a written evaluation regarding each petition seeking a permanent site specific operational level and shall file said evaluation within ninety (90) days following receipt of the petition with both the Board and 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 shall remain the applicable land use classification for enforcement of these rules against an existing forging operation and 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, 901.111 and 901.112 must comply with the site-specific operational level defined, or is otherwise subject to Section 901.105(c).

(Source: Section 901.105(f)(1), (2), and (3) recodified to Sections 901.110, 901.111 and 901.112 at 9 Ill. Reg. 7147)

Section 901.106 Prominent Discrete Tones

a) No person shall cause or allow the emission of any prominent discrete tone from any property-line-noise-source located on any Class A, B or C land to any receiving Class A, B or C land, provided, however, that no measurement of one-third octave band sound pressure levels shall be made less than 25 feet from such property-line source.

b) This rule 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 the applicable tables in Sections 901.102 through 901.104 for the octave band which contains such one-third octave band. In the application of this sub-section, the applicable table for sound emitted from any existing property-line noise source to receiving Class A land, for both daytime and nighttime operations shall be found in Section 901.102(a).

Section 901.107 Exceptions

a) Sections 901.102 through 901.106 inclusive shall not apply to sound emitted from land used as specified by SLUCM Codes 110, 140, 190, 691, and 742 except 7424 and 7425.

b) Sections 901.102 through 901.106 inclusive shall not apply to sound emitted from emergency warning devices and unregulated safety relief valves.

- c) Sections 901.102 through 901.106 inclusive shall not apply to sound emitted 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 shall not be considered agricultural field machinery.

- d) Sections 901.102 through 901.106 inclusive shall not apply to sound emitted from equipment being used for construction.

- e) Section 901.102(b) shall not apply to sound emitted from existing property-line-noise-sources during nighttime hours, provided, however, that sound emitted from such existing property-line-noise-sources shall be governed during nighttime hours by the limits specified in Section 901.102.

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

- g) Sections 901.102 through 901.106 inclusive shall not apply to sound emitted from land used as specified by SLUCM Codes 7223 and 7311 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; provided, however, that the exceptions granted in this subparagraph shall 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 shall not apply to impulsive sound produced by explosive blasting activities conducted on any Class C land used as specified by SLUCM codes 852 and 854, but such operations shall be governed by Section 901.109..

- i) Sections 901.102 through 901.106 inclusive, shall not apply to sound emitted from snowmobiles.

(Source: Amended at 6 Ill. Reg. 10960, effective September 1, 1982)

- a) Except as provided in subparagraphs (g), (i), and (j), every owner or operator of a new property-line-noise-source shall 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 shall 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 shall comply with the standards and limitations of this Part on and after February 10, 1975.

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

- f) Repealed

- g) Every owner or operator of Class C land now and hereafter used as specified by SLUCM Code 4112 shall have until August 10, 1976 to bring the sound from railroad car coupling in compliance with Section 901.104.

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

- i) Every owner or operator of Class C land now or hereafter used as specified by SLUCM Code 291 shall comply with the standards and limitations of this Part on August 10, 1975.

- j) Every owner or operator of Class C land now or hereafter used as specified by SLUCM Code 7223 and 7311 when used

for automobile and motorcycle racing shall comply with the standards and limitations of this Part on February 10, 1976.

(Source: Amended at 6 Ill. Reg. 10960, effective September 1, 1982)

Section 901.109 Impulsive Sound From Explosive Blasting

a) During the daytime hours, after sunrise and before sunset, no person shall cause or allow any explosive blasting conducted on any Class C land used as specified by SLUCM Codes 852 and 854 so as to allow the emission of sound to any receiving Class A or B land which exceeds the allowable outdoor C-weighted sound levels, measured with the slow dynamic characteristic, specified in the following table, when measured at any point, of reasonable interference with the use of such receiving Class A or B land.

Allowable Outdoor C-Weighted Sound Levels in Decibels of Explosive Blasting Sounds Emitted to Receiving Class A or B Land from Any Class C Land Used as Specified by SLUCM Code 852 or 854	
Receiving Class A Land 109	Receiving Class B Land 114

b) Compliance with outdoor peak sound pressure level limits in the following table shall constitute prima facie level limits of this rule when measured on 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 \pm or - 3dB (Hz)

	Receiving Class A Land (dB)	Receiving Class B Land (dB)
\leq 0.1	135	140
\leq 2.0 but greater than 0.1	132	137
\leq 6.0 but greater than 2.0	130	135

\leq 0.1	135	140
\leq 2.0 but greater than 0.1	132	137
\leq 6.0 but greater than 2.0	130	135

c) During the nighttime hours, after sunset and before sunrise, the allowable sound level limits in subparagraphs (a) and (b) shall 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 used as specified by SLUCM code 852 or 854 shall notify the local public of 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 6 Ill. Reg. 10960, effective September 1, 1982)

Section 901.110 Amforge Operational Level

Amforge Division of Rockwell International located at 119th Street, Chicago,

Illinois shall:

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

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) Sound absorptive materials shall be installed on each of the forging hammer structures as each is routinely overhauled, but no later than January 1, 1987.

(Source: Recodified from Section 901.105(f)(1) at 9 Ill. Reg. 7147)

Section 901.111 Modern Drop Forge Operational Level

Modern Drop Forge Company located at 139th Street and Western Avenue in Blue

Island, Illinois shall:

- 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: Recodified from Section 901.105(f) (2) at 9 Ill. Reg. 7147)

Section 901.112 Wyman-Gordon Operational Level

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: Recodified from Section 901.105(f)(3) at 9 Ill. Reg. 7147)

Section 901.113 Wagner Casting Site-Specific Operational Level

Wagner Casting Company and future owners of the forging facility located at the southeast corner of Sangamon and Jasper Streets in Decatur, Illinois, must comply with the following site-specific operational level or are otherwise subject to Section 901.105(c):

- a) Shall operate no more than nine forging hammers at any one time; and

- b) Shall operate its forging hammers only between the hours of 5:00 a.m. Monday through 9:00 p.m. Saturday.

(Source: Added at 8 Ill. Reg. 18893, effective September 2, 1984).

Section 901.114 Moline Forge Operational Level

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

- a) Operate no more than nine forging hammers at 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: Added at 9 Ill. Reg. 1405, effective January 17, 1985)

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 comply with the following site-specific operational level:

- a) Operate no more than seven forging hammers at 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: Added at 9 Ill. Reg. 1405, effective January 17, 1985)

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 comply with the following site-specific operational level:

- a) Operate no more than six forging hammers at 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: Added at 9 Ill. Reg. 1405, effective January 17, 1985)

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 comply with the following site-specific operational level:

- a) Operate no more than twelve forging hammers at 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: Added at 9 Ill. Reg. 1405, effective January 17, 1985)

Section 901.118 Atlas Forgings Division of Scot Forge Operational Level

Atlas Forge Division of Scot Forge and future owners of the forging facility located at 1501 South 55th Court, Cicero, Illinois, shall comply with the following site-specific operational level:

- a) Operate no more than three forging hammers at 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 Saturday.

(Source: Added at 9 Ill. Reg. 1405, effective January 17, 1985)

Section 901.119 Clifford-Jacobs Operational Level

Clifford-Jacobs Forging Company and future owners of the forging facility located at North Market Street, Champaign, Illinois, shall comply with the following site-specific operational level:

- a) Operate no more than fourteen hammers at any one time; and

- b) Operate its forging hammers only between the hours of 6:00 a.m. and 11:00 p.m. Monday through Saturday.

(Source: Added at 9 Ill. Reg. 7149, effective May 7, 1985)

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 comply with the following site-specific operational level:

- a) Operate no more than twelve forging hammers at 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: Added at 9 Ill. Reg. 7149, effective May 7, 1985)

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, shall comply with the following site-specific operational level:

- a) Operate no more than ten hammers at any one time; and

- b) Operate its forging hammers only between the hours of 6:00 a.m. and 1:30 p.m. Monday through Saturday.

(Source: Added at 9 Ill. Reg. 7149, effective May 7, 1985)

Section 901.APPENDIX A Old Rule Numbers Referenced

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

Section 901.APPENDIX B Standard Land Use Coding System

APPENDIX B

STANDARD LAND USE CODING SYSTEM

U.S. Department of Transportation

Federal Highway Administration

Reprinted 1969

B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES -- TWO-, THREE-, AND FOUR-DIGIT

LEVELS

*SIC Land**

<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>Reference¹</i>	<i>Class</i>
11	Household units.	110	Household units.	1100	Household units. ²	----	A
12	Group quarters.	121	Rooming and boarding houses.	1210	Rooming and boarding houses. ³		7021
122	Membership lodgings.	1221	Fraternity and sorority houses.		⁴ Incl. 7041		
		1229	Other membership lodgings, NEC. ⁵		Incl. 7041		
123	Residence halls or dormitories.	1231	Nurses' homes.		----		
		1232	College dormitories.		----		
		1239	Other residence halls or dormitories,		----		
			NEC.				
124	Retirement homes and orphan-	1241	Retirement homes.		----		
			ages. 1242 Orphanages.		----		
125	Religious quarters.	1251	Convents.		----		

1252 Monasteries. ----

1253 Rectories. ----

1259 Other religious quarters, NEC. ----

129 Other group quarters, NEC. 1290 Other group quarters, NEC. ----

13 Residential hotels. 130 Residential hotels. 1300 Residential hotels.⁶ Incl. 7011

14 Mobile home parks or courts. 140 Mobile home parks or courts. 1400 Mobile home parks or courts. 7031

15 Transient lodgings. 151 Hotels, tourist courts, and motels. 1510 Hotels, tourist courts, and motels. 7011

159 Other transient lodgings, NEC. 1590 Other transient lodgings, NEC.⁷

19 Other residential, NEC. 190 Other residential, NEC. 1900 Other residential, NEC. ---- A

FOOTNOTES

¹The SIC codes are listed for purposes of reference. They are the ³Code 1210----"Rooming and boarding houses" are those that have

codes in the SIC system that most nearly correspond to the 4-digit 5 or more persons renting rooms, with or without board, and not re-

land use activity indicated. (See ch. III, Sec. A3, "The Use of Stand- lated to the had or person in charge. Where there are less than 5

and Industrial Classification Nomenclature.") A dash indicates that roomers, the total quarters are considered as one "Household unit"

there is no corresponding SIC code. and is coded 1100.

Code 1100--"Household units" are defined as a house, and apart-² "Incl. 7041" is an abbreviation which indicates that the 4-digit
 ment, or other group of rooms, or a single room that is intended for land use activity category is only one of several categories
 of establish-
 occupancy as separate living quarters. Occupants of "Household units" do not live and eat with other persons in the structure (such as³ "NEC" is an abbreviation for "not elsewhere coded."
 in a boarding house), and there is either (1) direct access from the⁶ Code 1300--"Residential hotels" are those that have 75 percent or
 outside or through a common hall, or (2) there is a kitchen or cooking more of the available accommodations occupied by
 permanent guests
 equipment for the exclusive use of the occupants of the unit. The (i.e., persons who reside more than 30 days). Hotels with less than
 occupants may be a family, a group of unrelated persons, or a person 75 percent are included under code 15, "Transient lodgings."
 living alone. Mobile homes not in "Mobile home parks or courts"⁷ Code 1590--"Other transient lodgings, NEC" includes such estab-
 (code 14), but resting on a permanent type of foundation (e.g., a brick lishments as the YMCA, YWCA, and YMHA when 50
 percent or
 or concrete block foundation) are included as well as units that are more of the floor area is devoted to lodging and associated activities
 vacant or that are used on a seasonal basis. Farm homes are also in- and when less than 75 percent of the accommodations
 are occupied by
 cluded under "household units" and should be identified separately permanent guests. If 75 percent or more of the guests are permanent,
 from the remainder of the farm which is coded under "Agriculture," use code 1300. If 50 percent or more of the floor area is
 devoted to
 code 81. recreational activity, use code 7424, "Recreation centers (general)."

*"Land Class" refers to Rule 201 Classifications. "A" denotes a Class A Land, "B" denotes a Class B Land and "C" denotes a Class C Land. "U" denotes a Land unclassified in rule 201.
 (Added by IEPA.)

B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES -- TWO-, THREE-, AND FOUR-DIGIT

LEVELS -- Continued

*SIC Land**

<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>Reference¹</i>	<i>Class</i>
21	Food and kindred products--manufacturing.	211	Meat products -- manufacturing.	2111	Meat packing -- manufacturing.	2011	C
			2112	Sausages and other prepared meat products--manufacturing.		2013	
		2113	Poultry and small game dressing and packing.			2015	
212	Dairy products--manufacturing.	2121	Creamery butter--manufacturing.			2021	
		2122	Cheese, natural and processed.			2022	
		2123	Condensed and evaporated milk--manufacturing.			2023	
		2124	Ice cream and frozen desserts--manufacturing.			2024	
				2125	Fluid milk processing.	2026	

- 213 Canning and preserving of fruits, 2131 Canning and curing seafoods. 2031
vegetables, and seafoods. 2132 Canning specialty foods. 2032
 - 2133 Canning fruits, vegetables, preserves, 2033
jams, and jellies.
 - 2134 Drying and dehydrating fruits and 2034
vegetables.
 - 2135 Pickling fruits and vegetables; vege- 2035
table sauces and seasonings; salad
dressings--manufacturing.
 - 2136 Fresh or frozen packaged fish and 2036
seafoods.
 - 2137 Frozen fruits, fruit juices, vegetables, 2037
and specialities.

- 214 Grain mill products--manufactur- 2141 Flour and other grain mill products. 2041
ing. 2142 Preparing feeds for animals and fowls. 2042
 - 2143 Cereal preparations. 2043
 - 2144 Rice milling. 2044
 - 2145 Blending and preparing flour. 2045
 - 2146 Wet corn milling. 2046

- 215 Bakery products--manufacturing. 2150 Bakery products--manufacturing. 205

- 216 Sugar--manufacturing. 2160 Sugar--manufacturing. 206

- 217 Confectionery and related products--manufacturing.
 - 2171 Candy and other confectionery products--manufacturing. 2071
 - 2172 Chocolate and cocoa products--manufacturing. 2072
 - 2173 Chewing gum--manufacturing. 2073

- 218 Beverage--manufacturing.
 - 2181 Malt liquors--manufacturing. 2082
 - 2182 Malt--manufacturing. 2083
 - 2183 Wine, brandy, and brandy spirits--manufacturing. 2084
 - 2184 Distilling, rectifying, and blending liquors. 2085
 - 2185 Bottling and canning soft drinks and carbonated waters. 2086
 - 2186 Flavor extracts and flavoring sirups manufacturing, NEC. 2087

- 219 Other food preparations and kindred products manufacturing, NEC.
 - 2191 Cottonseed oil milling. 2091
 - 2192 Soybean oil milling. 2092
 - 2193 Vegetable oil milling (except cottonseed and soybean). 2093
 - 2194 Animal and marine fats and oils (including grease and tallow)--manufacturing. 2094
 - 2195 Roasting coffee and coffee products--manufacturing. 2095

- 2196 Shortening, table oils, margarine, 2096
and other edible fats and oils--
manufacturing.
- 2197 Ice--manufacturing 2097
- 2198 Macaroni, spaghetti, vermicelli, and 2098
noodles--manufacturing.
- 2199 Other food preparations and kindred 2099 C
products manufacturing, NEC.

B-2

**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 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 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

- Appendix A Old Rule Numbers Referenced

AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1981, ch. 111 1/2, pars. 1025 and 1027).

SOURCE: Originally filed as Part 3 of Chapter 8: Noise Pollution, effective May 31, 1977; codified at 7 Ill. Reg. 13579.

SUBPART A: EQUIPMENT STANDARDS APPLICABLE TO ALL MOTOR VEHICLES

Section 902.101 Exhaust System

No person shall operate or cause or allow the operation of a motor vehicle on a public right of way 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.

Section 902.102 Tires

No person shall operate or cause or allow the operation of a motor vehicle with one or more tires 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.

SUBPART B: OPERATIONAL STANDARDS

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

- a) This rule shall apply to all passenger cars regardless of weight and to other motor vehicles with a gross vehicle weight of 8,000 pounds or less, except 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 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, 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.

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

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

b) No person shall operate or cause or allow the operation of a motor vehicle subject to this rule at any time 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, 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 of a motor vehicle subject to this rule, powered by an engine with engine speed governor, 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.

Section 902.122 Standards Applicable to Motorcycles and Motor Driven Cycles

- 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.

Section 902.123 Exception for and Standards Applicable to Motor Carriers Engaged in Interstate Commerce with Respect to Operations Regulated 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 to motor carriers engaged in interstate commerce with respect to noise emissions regulated by such federal standards. Motor carrier operations determined pursuant to 35 Ill. Adm. Code 900.104 to be governed by this rule shall be excepted from Section 902.101, 902.102 and 902.121.

- 2) This rule shall apply to motor carriers with respect only to the operation of those motor vehicles of such carriers which have a gross vehicle weight rating or gross combination weight rating in excess of 10,000 pounds, and only when such motor vehicles are operated under the conditions specified below.

- 3) Except as provided in subparagraph (4) of this paragraph (a), this 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 such motor vehicles.

- 4) This rule shall not apply to auxiliary equipment 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 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.

Section 902.124 Horns and Other Warning Devices

- 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).

Section 902.125 Tire Noise

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

SUBPART C: EXCEPTIONS AND COMPLIANCE DATES FOR PART 902

Section 902.140 Exceptions

- a) The standards and limitations of Part 902 shall not apply to:
- 1) any vehicle moved by human or animal powers;
 - 2) any vehicle moved by electrical power;
 - 3) any vehicle used exclusively upon stationary rails or tracks;
 - 4) any farm tractor;
 - 5) any antique vehicle, if licensed under Section 3-804 of the Illinois Vehicle Code Ill. Rev. Stat. 1981, ch. 95 1/2, par. 3-804;
 - 6) any snowmobile;
 - 7) any special mobile equipment;
 - 8) any vehicle while being used lawfully for racing competition or time racing events; and

9) any lawn care maintenance equipment.

b) Sections 902.102 and 902.123(b)(2) shall not apply to any person who can show that a tread pattern as described in 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 Sections 902.120 through 902.123 inclusive shall not apply to warning devices, such as horns and sirens; or to emergency equipment and vehicles 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.

Section 902.141 Compliance Dates

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.

Section 902.APPENDIX A Old Rule Numbers Referenced

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

**TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE H: NOISE**

CHAPTER I: POLLUTION CONTROL BOARD

**PART 903
RULES AND REGULATIONS FOR THE CONTROL OF NOISE FROM MOTOR RACING FACILITIES**

SUBPART A: OPERATIONAL PROCEDURES AND RACING WITHOUT MUFFLERS

Section

903.101	Operational Procedures
903.102	Racing Vehicles without Mufflers

SUBPART B: DRAG RACING FACILITIES

Section

903.120	Muffler Requirements
903.121	Sound Level Measurement Requirements
903.122	Sound Emission Limits

SUBPART C: OVAL RACING FACILITIES

Section

- 903.140 Muffler Requirements
- 903.141 Sound Level Measurement Requirements
- 903.142 Sound Emission Limits

SUBPART D: SPORTS CAR RACING FACILITIES

Section

- 903.160 Muffler Requirements
- 903.161 Sound Level Measurement Requirements
- 903.162 Sound Emission Limits

SUBPART E: MOTORCYCLE RACING FACILITIES

Section

- 903.180 Muffler Requirements
- 903.181 Sound Level Measurement Requirements
- 903.182 Sound Emission Limits

SUBPART F: EXCEPTIONS AND COMPLIANCE DATES FOR PART 903

Section

- 903.200 Exceptions
- 903.201 Compliance Dates for Part 903

Appendix A Old Rule Numbers Referenced

AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1981, ch. 111 1/2, pars. 1025 and 1027).

SOURCE: Adopted at 2 Ill. Reg. 27, p. 233, effective June 26, 1978; codified at 7 Ill. Reg. 13579.

SUBPART A: OPERATIONAL PROCEDURES AND RACING WITHOUT MUFFLERS

Section 903.101 Operational Procedures

The owner or operator of a motor racing facility shall reduce noise emissions from the public address system by using noise abatement methods and operational changes -- for example, by reducing the volume of the loudspeaker system, by increasing the number of speakers so that the volume of individual speakers can be further reduced, and by relocating and redirecting the speakers away from residential property.

Section 903.102 Racing Vehicles without Mufflers

No person shall cause or allow the use or operation of any motor racing vehicle that does not require a muffler in accordance with this Part in any motor racing event started after 10:30 p.m. local time on any particular weekday or after 11:00 p.m. local time on any particular weekend day.

SUBPART B: DRAG RACING FACILITIES

Section 903.120 Muffler Requirements

- a) No person shall cause or allow the use or operation of any drag racing vehicle equipped with a normally aspirated gasoline burning engine at a drag racing facility unless such drag racing vehicle is equipped with a well-maintained and properly installed muffler. Except for any motorcycle used as a drag racing vehicle, all mufflers required in accordance with this subparagraph (a) shall meet the requirements specified in subparagraph (b).

- b) Except for any motorcycle used as a drag racing vehicle, all mufflers required in accordance with subparagraph (a) shall have noise reducing characteristics which will produce a reduction in total vehicle noise of at least the amount listed in the following table when such drag racing vehicle is operated in a manner simulating wide-open throttle competition. Such noise reduction shall be determined by using measurement procedures specified in 35 Ill. Adm Code 900.103.

Total Vehicle Noise Reduction Requirements
 for Mufflers Installed on Drag Racing Vehicles
 (Except Motorcycles) During Wide-open
 Throttle Acceleration Run

Type of Drag Racing Vehicle	Date	Total Vehicle Noise Reduction dB
Group A	On and after March 15, 1979	Muffler only
Group A	On and after March 15, 1980	10 dB
Group A	On and after March 15, 1983	14 dB
Group B	On and after March 15, 1980	Muffler only
Group B	On and after March 15, 1981	10 dB
Group B	On and after March 15, 1983	14 dB
Group C	On and after March 15, 1981	Muffler only
Group C	On and after March 15, 1982	10 dB
Group C	On and after March 15, 1983	14 dB

- 1) Group A includes all drag racing vehicles in the National Hot Rod Association (NHRA) classes of ET Bracket, Stock and Super Stock; the International Hot Rod Association (IHRA) classes of ET Bracket, Stock and Super Stock; the American Hot Rod Association (AHRA) classes of Selectra, Stock, Super Street and Super Stock; and all other similar drag racing vehicles.

- 2) Ground B includes all drag racing vehicles in the NHRA class of Modified; the IHRA class of Super Modified; the AHRA class of Modified/Street; and all other similar drag racing vehicles.

- 3) Group C includes all drag racing vehicles in the NHRA classes of Competition and Pro Stock; the IHRA classes of Super Comp and Pro Stock; the AHRA classes of Top Competition and Pro Stock; and all other similar drag racing vehicles.

Section 903.121 Sound Level Measurement Requirements

- a) The sound emissions from each drag racing vehicle required to have a muffler in accordance with Section 903.120 must be measured before competing in terms of A-weighted sound levels using sound level meters in conformance with American National Standards Institute (ANSI) Standards §1.4 Type 1 or Type 2 requirements and using procedures specified in 35 Ill. Adm. Code 900.103. All sound level measurements must be made with the microphone one-half meter from the exhaust outlet with the engine gear-box in neutral at an engine speed of 4000 rpm. It shall be the responsibility of the drag racing facility's owners or operators, or designated agent, to measure and record the required sound level data. Upon reasonable request, the owner or operator shall make such recorded sound level data available to the Agency. The owner and operator must keep such recorded sound level data for the duration of the racing season.

- b) The Agency shall publish techniques for determining compliance with Section 903.120 under static test conditions.

- c) On and after March 15, 1979, before any motorcycle racing vehicle required to have a muffler in accordance with Section 903.120 competes at a drag racing facility, the noise emissions from such motorcycle racing vehicle must be measured in terms of A-weighted sound levels using sound level meters in conformance with ANSI Standards §1.4 Type 1 or Type 2 requirements and using procedures specified in 35 Ill. Adm. Code 900.103. The microphone shall be located one-half meter from and in the horizontal plane of the rearmost exhaust outlet at an angle of 45 degrees behind the exhaust outlet and from the normal line of travel of the motorcycle. The engine shall be run with the gear-box in neutral at an engine speed equal to one-half of the manufacturer's-recommended-maximum-engine-speed. If no manufacturer's-recommended- maximum-engine-speed is published for a particular motorcycle, then an engine speed equal to 60 percent of the engine speed at which maximum horsepower is developed shall be used. If no manufacturer's-recommended-maximum-engine-speed is published, then the engine speed during the sound level measurement shall be calculated from either of the following formulae:

Engine Speed = 306,000

stroke in millimeters

OR

Engine Speed = 12,000

stroke in inches

Section 903.122 Sound Emission Limits

On and after March 15, 1979, no person shall cause or allow the use or operation of any motorcycle racing vehicle required to have a muffler in accordance with Section 903.120 whose sound emissions exceed 115 db(A) when measured in accordance with Section 903.121 and when measured one-half meter from the rearmost exhaust outlet.

SUBPART C: OVAL RACING FACILITIES

Section 903.140 Muffler Requirements

a) Except as provided in subparagraph (b), no person shall cause or allow the use or operation of any oval racing vehicle at an oval racing facility unless such oval racing vehicle is equipped with a well-maintained and properly installed muffler. Except for any motorcycle used as an oval racing vehicle, all mufflers required in accordance with this rule shall meet the requirements specified in subparagraph (c).

b) The following oval racing vehicles shall not require a muffler in accordance with subparagraph (a);

1) Sprint racing vehicles;

- 2) Midget racing vehicles;

- 3) Supercharged oval racing vehicles.

c) Except for any motorcycle used as an oval racing vehicle, all mufflers required in accordance with subparagraph (a) shall have noise reducing characteristics which will produce a reduction in total vehicle noise of at least the amount listed in the following table when such oval racing vehicle is operated in a manner simulating wide-open throttle competition. Such noise reduction shall be determined by using measurement procedures specified in 35 Ill. Adm. Code 900.103.

Wide-open Throttle Noise Reduction Requirements
for Mufflers Installed on Oval Racing Vehicles
(Except Motorcycles)

Date	Muffler Noise Reduction Requirement, dB
On and after March 15, 1979	Muffler only
On and after March 15, 1980	10 dB
On and after March 15, 1982	16 dB

Section 903.141 Sound Level Measurement Requirements

- a) The requirements for measuring noise emissions from oval racing vehicles, other than motorcycles used as oval racing vehicles, shall be identical to those specified under Section 903.121(a) for drag racing vehicles.

- b) The Agency shall publish techniques for determining compliance with Section 903.140 under static test conditions.

- c) The requirements for measuring noise emissions from motorcycle racing vehicles competing at oval racing facilities shall

be identical to those specified under Section 903.121(c) for motorcycle racing vehicles competing at drag racing facilities.

Section 903.142 Sound Emission Limits

No person shall cause or allow the use or operation of any motorcycle racing vehicle required to have a muffler in accordance with Section 903.140 whose sound emissions exceed 115 dB (A) when measured in accordance with Section 903.141 and when measured one-half meter from the rearmost exhaust outlet.

SUBPART D: SPORTS CAR RACING FACILITIES

Section 903.160 Muffler Requirements

- a) Except as provided in subparagraph (b), on and after March 15, 1979, no person shall cause or allow the use or operation of any sports car racing vehicle competing at a sports car racing facility unless such sports car racing vehicle is equipped with a well-maintained and properly installed muffler.

- b) The following sports car racing vehicles shall not require a muffler in accordance with subparagraph (a): all sports car racing vehicles which are supercharged.

Section 903.161 Sound Level Measurement Requirements

During all qualifying runs, noise emissions from each sports car racing vehicle required to have a muffler in accordance with Section 903.160, must be measured in terms of A-weighted sound levels using sound level meters in conformance with ANSI Standards §1.4 Type 1 or Type 2 requirements and using procedures specified in 35 Ill. Adm. Code 900.103. All measurements must consistently be made at the same measurement site; provided, however, that such measurement site can be changed if necessitated by good faith circumstances making the use of the first measurement site impossible or impractical. It shall be the responsibility of the sports car racing facility's owners or operators, or designated agent, to measure and record the required sound level data. Upon reasonable request, the owner or operator shall make such recorded sound level data available to the Agency. The owner and operator must keep such recorded sound level data for the duration of the racing season.

Section 903.162 Sound Emission Limits

No person shall cause or allow the use or operation of any sports car racing vehicle required to have a muffler in accordance with Section 903.160 whose sound emissions while accelerating, as measured in accordance with Section 903.161, exceed 105 dB (A) when measured 50 feet from the center of the lane of travel of such sports car racing vehicle while accelerating on the track.

SUBPART E: MOTORCYCLE RACING FACILITIES

Section 903.180 Muffler Requirements

- a) Except as provided in subparagraph (b), on and after March 15, 1979, no person shall cause or allow the use or operation of any motorcycle racing vehicle competing at a motorcycle racing facility unless such motorcycle racing vehicle is equipped with a well-maintained and properly installed muffler.

- b) The following motorcycle racing vehicles shall not require a muffler in accordance with subparagraph (a):
supercharged motorcycle racing vehicles.

Section 903.181 Sound Level Measurement Requirements

The requirements for measuring noise emissions from motorcycle racing vehicles competing at motorcycle racing facilities shall be identical to those specified under Section 903.121(c) for motorcycle racing vehicles competing at drag racing facilities.

Section 903.182 Sound Emission Limits

No person shall cause or allow the use or operation of any motorcycle racing vehicle required to have a muffler in accordance with Section 903.180 whose sound emissions exceed 115 dB (A) when measured in accordance with Section 903.181 and when measured one-half meter from the rearmost exhaust outlet.

SUBPART F: EXCEPTIONS AND COMPLIANCE DATES FOR PART 903

Section 903.200 Exceptions

- a) Sections 903.120 through 903.182 shall not apply to any special-motor-racing-events, provided that not more than three special-motor-racing-events are conducted at any motor racing facility during any calendar year. The owner or operator of any motor racing facility which is conducting a special-motor-racing-event must previously notify the local public that a special-motor-racing-event will be conducted.

- b) Sections 903.120 through 903.182 shall not apply to motor racing facilities which conduct motor racing events on fewer than five days per calendar year.

- c) Sections 903.120 through 903.182 shall not apply to fairground motor racing facilities during motor racing events held in conjunction with a state or county fair.

- d) Sections 903.102 through 903.182 shall not apply if there are no residential dwelling units within two miles of such motor racing facility's racing surface.

- e) Sections 903.102 through 903.182 shall not apply to any motor racing facility whose sound emissions do not at any time exceed the background sound level by more than 7 dB(A) at any residential dwelling unit.

- f) Sections 903.102 through 903.182 shall not apply to any existing motor racing facility whose sound emissions do not at any time exceed the allowable octave band sound pressure levels specified in 35 Ill. Adm. Code 901.102(a) when measured at any point within any receiving Class A land.

- g) Sections 903.102 through 903.182 shall not apply to any new motor racing facility whose sound emissions do not exceed at any time during daytime hours the allowable octave band sound pressure levels specified in 35 Ill. Adm. Code 901.102(a) or at any time during the nighttime hours the allowable octave band sound pressure levels specified in 35 Ill. Adm. Code 901.102(b) when measured at any point within any receiving Class A land.

Section 903.201 Compliance Dates for Part 903

- a) Every owner or operator of an existing motor racing facility shall comply with the requirements of this Part by September 24, 1978.

- b) Every owner or operator of a new motor racing facility shall comply with the requirements of this Part when motor racing activities commence at such new motor racing facility.

Section 903.APPENDIX A Old Rule Numbers Referenced

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

Old Part 4 of Chapter 8	35 Ill. Adm. Code Part 903
Rule 401	Section 903.101
Rule 402	Section 903.102
Rule 403	Section 903.120
Rule 404	Section 903.121
Rule 405	Section 903.122
Rule 406	Section 903.140
Rule 407	Section 903.141
Rule 408	Section 903.142
Rule 409	Section 903.160
Rule 410	Section 903.161
Rule 411	Section 903.162
Rule 412	Section 903.180
Rule 413	Section 903.181
Rule 414	Section 903.182
Rule 415	Section 903.200
Rule 416	Section 903.201

TITLE 35: ENVIRONMENTAL PROTECTION SUBTITLE H: NOISE

CHAPTER I: POLLUTION CONTROL BOARD

PART 905
SOUND EMISSION STANDARDS AND LIMITATIONS FOR SNOWMOBILES

Section

905.101	Exhaust Systems
905.102	Noise Emission Standards
905.103	Certification Requirement for Registration of New Snowmobiles
905.104	Exemptions to Part 905
905.105	Compliance Dates for Part 905
Appendix A	Old Rule Numbers Referenced

AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1981, ch. 111 1/2, pars. 1025 and 1027).

SOURCE: Adopted at 5 Ill. Reg. 8533, effective August 10, 1981; codified at 7 Ill. Reg. 13579.

Section 905.101 Exhaust Systems

- a) No person shall operate or cause or allow the operation of a snowmobile unless the exhaust system of such snowmobile is:
- 1) free from defects which interfere with sound reduction;
 - 2) equipped with a muffler or other dissipative device;
 - 3) not equipped with a cutout, by-pass or similar device.

b) No person shall install any parts in or modify the cooling, intake, or exhaust system of a snowmobile in a manner which will amplify or increase the sound level emitted by that snowmobile above the level emitted by such snowmobile with the equipment originally installed on the snowmobile.

c) No person shall operate or cause or allow the operation of a snowmobile which has been modified in a manner which will amplify or increase the sound level emitted by that snowmobile above the level emitted by such snowmobile with the equipment originally installed on the snowmobile.

Section 905.102 Noise Emission Standards

a) No person shall operate or cause or allow the operation of a snowmobile manufactured after April 1, 1979 which generates a sound level in excess of 78 decibels on the A-scale at 50 feet when measured in accordance with procedures established under 35 Ill. Adm. Code 900.103(e)(1).

b) No person shall operate or cause or allow the operation of a snowmobile manufactured after April 1, 1979 which generates a sound level in excess of 73 decibels on the A-scale at 50 feet when measured in accordance with procedures established under 35 Ill. Adm. Code 900.103(e)(2).

Section 905.103 Certification Requirement for Registration of New Snowmobiles

a) No new snowmobile shall be registered for use in Illinois unless the application for registration includes a certification by the selling dealer that the snowmobile complies with Section 905.101 and the level of sound it emits does not exceed:

1) 78 decibels on the A-scale at 50 feet when measured in accordance with procedures established under 35 Ill. Adm. Code 900.103(e)(1).

2) 73 decibels on the A-scale at 50 feet when measured in accordance with procedures established under 35 Ill. Adm. Code 900.103(e)(2).

b) Certification by the selling dealer that the snowmobile has been certified by the Snowmobile Safety and Certification

Committee on or after April 1, 1979 is prima facia proof of compliance with subparagraphs (a)(1) and (a)(2), provided that SSCC sound level requirements for certification remain identical to those contained in subparagraph (a).

Section 905.104 Exemptions to Part 905

- a) Sections 905.101 and 905.102 shall not apply to any snowmobile while being used lawfully for racing competition or timed racing events.

- b) Sections 905.101, 905.102, and 905.103 shall not apply to those snowmobiles described in Ill. Rev. Stat. 1981, ch. 95 1/2, par. 603-11 (C-D), as exempted from the numbering provision of the Snowmobile Registration and Safety Act.

- c) Section 905.103 shall not apply to those snowmobiles described in Ill. Rev. Stat. 1981, ch. 95 1/2, par. 603-11 (A-B) as exempted from the numbering provision of the Snowmobile Registration and Safety Act.

Section 905.105 Compliance Dates for Part 905

Except as otherwise provided in Section 905.104, every owner and operator of a snowmobile subject to this Part shall comply with the rules of this Part on and after November 8, 1981.

Section 905.APPENDIX A Old Rule Numbers Referenced

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

Old Part 6 of Chapter 8	35 Ill. Adm. Code Part 905
Rule 601	Section 905.101
Rule 602	Section 905.102
Rule 603	Section 905.103
Rule 604	Section 905.104
Rule 605	Section 905.105

TITLE 35: ENVIRONMENTAL PROTECTION

SUBTITLE H: NOISE

CHAPTER II: ENVIRONMENTAL PROTECTION AGENCY

PART 952

**MEASUREMENT PROCEDURES FOR THE ENFORCEMENT
OF 35 ILL. ADM. CODE 902**

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SUBPART F: EXHAUST SYSTEMS AND TIRES

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APPENDIX A STANDARD TEST SITE: HIGHWAY OPERATIONS

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APPENDIX G EXAMPLE OF STANDARD TEST SITE: HIGHWAY OPERATIONS (60 FEET (18.3 m) DISTANCE BETWEEN MICROPHONE LOCATION AND TARGET POINTS)

APPENDIX H EXAMPLE OF STANDARD TEST SITE: STATIONARY TEST (35 FEET (10.7 m) DISTANCE BETWEEN MICROPHONE LOCATION AND TARGET POINTS)

APPENDIX I PASSENGER CAR MICROPHONE POSITIONS

APPENDIX J OLD RULE NUMBERS REFERENCED

AUTHORITY: Implementing and authorized by Sections 25 and 27 of the Environmental Protection Act (Ill. Rev. Stat. 1981, ch. 111 1/2, pars. 1025 and 1027) and 35 Ill. Adm. Code 900.103.

SOURCE: Adopted at 4 Ill. Reg. 19, p. 207, effective May 1, 1980; codified at 8 Ill. Reg. 18111.

SUBPART A: GENERAL PROVISIONS

Section 952.100 General Provisions

a) Introduction

This report describes procedures for inspection, surveillance and measurement of motor vehicles and motor vehicle equipment to determine whether those motor vehicles and motor vehicle equipment conform to the standards specified in 35 Ill. Adm. Code 902 (old Part 3 of Chapter 8 of the Illinois Pollution Control Board Rules and Regulations).

b) Definitions

"Hard test site": any test site having the ground surface covered with concrete, asphalt, packed dirt, gravel or similar reflective material for more than 1/2 the distance between the microphone target point and the microphone location point.

"Soft test site": any test site having the ground surface covered with grass, other ground cover or similar absorptive material for 1/2 or more of the distance between the microphone target point and the microphone location point.

"Ground cover": any of various low, dense-growing plants, such as ivy, myrtle, low weeds or brush.

"Traffic railing": any longitudinal highway traffic barrier system installed along the side or median of a highway. For the purpose of this report, a traffic railing must have at least 35 percent of its vertical height, from the ground surface to the top of the railing, open to free space in order to qualify as an acceptable object within a noise measurement test site. Further, for the purposes of this report, posts or other discrete supports shall be ignored when ascertaining open free space.

"Relatively flat": when used to describe a noise measurement site means a site which does not contain significant concave curvatures or slope reversals that may result in the focusing of sound waves toward the microphone location point.

c) Measurement Tolerances

1) Measurement tolerances will be allowed to take into account the effects of the following factors:

A) The consensus standard practice of reporting field sound level measurements to the nearest whole decibel (dB).

- B) Variations resulting from commercial instrument tolerances.
 - C) Variations resulting from the topography of the noise measurement site.
 - D) Variations resulting from atmospheric conditions such as wind, temperature and atmospheric pressure.
 - E) Variations resulting from reflected sound from small objects allowed within the test site.
 - F) The interpretation of the effects of the above cited factors by enforcement personnel.
- 2) Measurement tolerances shall not exceed:
- A) 1 dB for Type 1 sound level meters;
 - B) 2 dB for Type 2 and Type S sound level meters.
- 3) Measurement tolerances are to be added to the applicable sound level limit.

SUBPART B: INSTRUMENTATION

Section 952.110 Instrumentation

a) Scope of this Subpart

This Subpart specifies criteria for sound level measurement systems which are used to make the sound level measurements specified in Subparts C and D of these measurement procedures.

b) Type of Measurement Systems Which May Be Used

The sound level measurement system must meet or exceed the requirements of American National Standards Institute Specification for Sound Level Meters (ANSI §1.4-1971), approved April 27, 1971, issued by the American National Standards Institute throughout the applicable frequency range for either:

- 1) A Type 1 sound level meter;
- 2) A Type 2 sound level meter; or
- 3) A Type S sound level meter which has:
 - A) A-weighting frequency response;
 - B) Fast dynamic characteristics of its indicating instrument; and
 - C) A relative response level tolerance consistent with those of either a Type 1 or Type 2 sound level meter, as specified in Section 2.1 of ANSI §1.4-1971.

c) Calibration of Measurement Systems

1) A) The sound level measurement system must be calibrated and appropriately adjusted at one or more frequencies in the range from 250 to 1,000 Hertz (Hz) at the beginning of each series of measurements and at intervals of 5-15 minutes thereafter, until it has been determined that the sound level measurement system has not significantly drifted from its calibrated level. Once this fact has been established, calibrations may be made at intervals once every hour. A significant drift shall be considered to have occurred if a 0.3 dB or more excursion is noted from the system's predetermined reference calibration level. In the case of systems using displays with whole decibel increments, the operator may visually judge when the 0.3 dB drift has been met or exceeded.

B) The sound level measurement system must be checked once every twelve months by its manufacturer, a representative of its manufacturer, or a person of equivalent special competence to verify that its accuracy meets the manufacturer's design criteria.

2) An acoustical calibrator of the microphone coupler type designed for the sound level measurement system in use shall be used to calibrate the sound level measurement system in accordance with subsection (c)(1). The calibration must meet or exceed the accuracy requirements specified in Subsection 5.4.1 of the American National Standards Institute Standard Methods for Measurements of Sound Pressure Levels, (ANSI §1.13-1971) for field method measurements.

d) Windscreens

A properly installed windscreen, of the type recommended by the manufacturer of the Sound Level Measurement System, shall be used during the time that noise emission measurements are being taken, in order to minimize the wind generated noise on the microphone and to protect the microphone from dust and other airborne matter. The windscreen also reduces damage to the microphone in the event the tripod is upset or the microphone is dropped.

SUBPART C: MEASUREMENT OF NOISE EMISSIONS: HIGHWAY OPERATIONS

Section 952.120 Scope of this Subpart

a) This Subpart specifies conditions and procedures for measurement of the sound level generated by a motor vehicle engaged in a highway operation for the purpose of ascertaining whether the motor vehicle conforms with 35 Ill. Adm. Code 902.120(b)(1) and (b)(2), 902.121(b)(1) and (b)(2), 902.122(b)(1) and (b)(2) and 902.123(c).

b) A "standard site" is a measurement site which conforms with the specifications listed under Chapter 325.33 "Site

Characteristics: highway operations" of Subpart C of "Department of Transportation Bureau of Motor Carrier Safety Regulations for Enforcement of Motor Carrier Emission Standards," as described below in Section 952.121. A standard site must be utilized to determine compliance with 35 Ill. Adm. Code 902.121: Standards Applicable to Motor Vehicles with Gross Vehicle Weight (GVW) in Excess of 8,000 Pounds and 35 Ill. Adm Code 902.123: Exception for and Standards Applicable to Motor Carriers Engaged in Interstate Commerce with Respect to Operations Regulated Pursuant to the Federal Noise Control Act of 1972. A standard site may be utilized to determine compliance with 35 Ill. Adm. Code 902.120: Standards Applicable to All Passenger Cars and to Other Motor Vehicles with GVW of 8,000 Pounds or Less and 35 Ill. Adm. Code 902.122: Standards Applicable to Motorcycles and Motor Driven Cycles.

c) 1) A "restricted site" is a measurement site at which:

A) The distance from the microphone to the center of the near lane of travel is greater than 26 feet (7.9 meters (m)) or less than 100 feet (30.2 m), or

B) The distance from the microphone target point to large reflecting surfaces is less than the distance between the microphone and the microphone target point, or

C) The distance from the microphone to large reflecting surfaces is less than the distance between the microphone and the microphone target point (See Appendix B).

2) A restricted site may be utilized to determine compliance with 35 Ill. Adm. Code 902.120: Standards Applicable to All Passenger Cars and to Other Motor Vehicles with GVW of 8,000 Pounds or Less and 35 Ill. Adm. Code 902.122: Standards Applicable to Motorcycles and Motor Driven Cycles.

Section 952.121 Standard Site Characteristics

a) Measurements shall be made at a test site which is adjacent to, and includes a portion of, a traveled lane of a public highway. A microphone target point shall be established on the centerline of the traveled lane of the highway, and a microphone location point shall be established on the ground surface not less than 35 feet (10.7 m) or more than 83 feet (25.3 m) from the microphone target point and on a line that is perpendicular to the centerline of the traveled lane of the highway and that passes through the microphone target point. Within the test site is a triangular measurement area. A plan view diagram of a standard test site is shown in Appendix A. Measurements may be made at a test site having smaller or greater dimensions in accordance with the following:

1) If the distance between the microphone location point and the microphone target point is other than 50 feet (15.2 m), the test site must be an open site with a radius from both points which is equal to the distance between the microphone location point and the microphone target point.

2) Plan view diagrams of standard test sites are shown in Appendices G and H. Appendix G illustrates a test site which has a 60 foot (18.3 m) distance between the microphone location point and the microphone target point. Appendix H illustrates a test site which has a 35 foot (10.7 m) distance between the microphone location point and the microphone target point.

b) The measurement site must be an open site, essentially free of large sound reflecting objects. However, the following objects may be within the measurement site, including the triangular measurement area:

1) Small cylindrical objects such as fire hydrants or telephone or utility poles located 3 feet (1 m) or more from the microphone.

2) Rural mailboxes located 3 feet (1 m) or more from the microphone.

3) One or more curbs having a vertical height of 1 foot (.3 m) or less.

c) The following objects may be within the test site if they are outside of the triangular measurement area of the site:

1) Any vertical surface (such as a billboard), regardless of size, having a lower edge more than 15 feet (4.6 m) higher than the surface of the traveled lane of the highway.

2) Any uniformly smooth sloping surface slanting away from the highway (such as a rise in grade alongside the highway) with a slope that is less than 45 degrees above the horizontal.

3) Any surface slanting away from the highway that is 45 degrees or more and not more than 90 degrees above the horizontal, if all points on the surface are more than 15 feet (4.6 m) above the surface of the traveled lane of the highway.

d) 1) The surface of the ground within the triangular measurement area must be relatively flat. If the site is determined to

be "hard," the correction factor specified below shall be applied to the sound level limits of 35 Ill. Adm. Code 902.121 and 902.123.

2) When measurements are made upon a test site which is "hard," a correction factor of 2 dB(A) shall be added to the sound level limits of 35 Ill. Adm. Code 902.121(b)(1), 902.121(b)(2) and 902.123(c).

e) The traveled lane of the highway within the test site must be dry, paved with relatively smooth concrete or asphalt, and substantially free of:

1) Holes or other defects which would cause a motor vehicle to emit irregular tire, body or chassis impact noise; and

2) Loose material, such as gravel or sand.

f) The traveled lane of the highway on which the microphone target point is situated must not pass through a tunnel or underpass located within 200 feet (61 m) of that point.

Section 952.122 Restricted Site Characteristics

a) Restricted measuring sites are those sites where sound reflecting surfaces are close to either the microphone or the microphone target point as specified in Section 952.120(c).

b) Measurements shall be made at a test site which is adjacent to, and includes a portion of a traveled lane of a public highway. A microphone target point shall be established on the centerline of the traveled lane of the highway and a microphone location point shall be established on the ground surface not less than 26 feet (7.9 m) or more than 100 feet (30.2 m) from the microphone target point and on a line that is perpendicular to the centerline of the traveled lane of the highway and that passes through the microphone target point.

c) A sound reflecting surface is any building, signboard, hillside or similar object, within the measurement site, that reflects sufficient sound to affect the sound level readings obtained from passing vehicles. Such sound reflecting surfaces make this site

a restricted measurement site. Some sound reflecting surfaces require a correction to the measured sound level.

- 1) Surfaces not requiring correction. The following surfaces and objects within the measuring site do not require a correction factor:
 - A) Small cylindrical objects such as fire hydrants or telephone or utility poles located 3 feet (1 m) or more from the microphone.
 - B) Rural mailboxes located 3 feet (1 m) or more from the microphone.
 - C) Traffic railings of any type of construction except solid concrete barriers.
 - D) Chain-link fences or any vegetation such as bushes, shrubs, hedges and grass.
 - E) One or more curbs having a vertical height of 1 foot (.3 m) or less.
 - F) The following objects may be within the measurement site if they are outside of the triangular measurement area of the site:
 - i) Any vertical surface (such as a billboard), regardless of size, having a lower edge more than 15 feet (4.6 m) higher than the surface of the traveled lane of the highway.
 - ii) Any uniformly smooth sloping surface slanting away from the highway (such as a rise in grade alongside the highway) with a slope that is less than 45 degrees above the horizontal.
 - iii) Any surface slanting away from the highway that is 45 degrees or more and not more than 90 degrees above the horizontal, if all points on the surface are more than 15 feet (4.6 m) above the surface of the traveled lane of the highway.

- 2) Surfaces Requiring Correction. Sound level measurements may be made with appropriate corrections when sound

reflecting surfaces are within the measuring site as shown in Appendix B. Measurements may be made only when the sound reflecting surfaces are basically parallel to the lane of travel.

A) A basically parallel surface may have irregularities or projections of not more than 2 feet (.6 m) measured perpendicular to the lane of travel, with the distance to the microphone line or vehicle path measured from the closest point of the projection.

B) Sound reflecting surfaces not basically parallel to the lane of travel shall be a minimum of 35 feet or B, whichever is greater, from the microphone and microphone target point. (B is the distance between the microphone and microphone target point as shown in Appendix B.) This restriction does not apply to surfaces that are perpendicular to the lane of travel and behind the parallel surface for which corrections are made, such as a fence or the side walls of a building.

C) Distance measurements from smooth embankments covered with vegetation, concrete, asphalt, dirt or other relatively smooth cover shall be made from the point where the slope begins to exceed 45 degrees above horizontal. Measurements from non-smooth embankments shall be made from the point where the irregularity begins.

3) Correction Factors for Sound Reflecting Surfaces. Correction factors to be added to the applicable sound level limits when there are sound reflecting surfaces within the restricted measurement site shall be determined as follows:

A) Reflecting Surfaces. Sites with sound reflecting surfaces basically parallel to the vehicle path within the measuring area shown in Appendix B may be used by measuring the distances shown in Appendix B and adding the correction factor obtained from the nomogram in Appendix E to the applicable sound level limit.

B) Measuring Distances to Determine Correction. Measurement "D" is the shortest distance between the centerline of the lane of travel and the reflecting surface located on the opposite side of the lane of travel from the measurement location (see Appendices B, C and D). Measurement "L" is the shortest distance between a line parallel to the lane of travel passing through the microphone and the reflecting surface behind the measurement location (see Appendices B, C and D).

C) Determining Correction Factor. Locate the points on the left and right scales of Appendix E corresponding to the distances "D" and "L" in Appendices B and C. Place a straight edge across the nomogram so that it connects the two points. The point where the straight edge intersects the center axis indicates the correction factor to be added to the applicable sound level limit.

4) Correction Factor for a Microphone Mounted on a Passenger Car. A correction factor of 1dB shall be added to the applicable sound level limit when a microphone is mounted on a passenger car.

Section 952.123 Ambient Conditions

a) Sound

1) The ambient A-weighted sound level at the microphone location point shall be measured, in the absence of motor vehicle noise emanating from within the clear zone, with fast meter response using a sound level measurement system that conforms to these procedures.

2) The measured ambient level of non-motor vehicle sound must be 10 dB(A) or more below that level which corresponds to the maximum permissible sound level reading which is applicable at the test site at the time of testing. The maximum permissible sound level reading is the sound level limit appropriate for each vehicle type, plus the site corrections.

b) Wind. Noise measurements may only be made if the measured wind velocity is 12 miles per hour (mph) (19.3 kilometers per hour (kph)) or less. The wind velocity at the test site shall be measured at the beginning of each series of noise measurements and at intervals of 5-15 minutes thereafter until it has been established that the wind velocity is essentially constant. Once that fact has been established, wind velocity measurements may be made at intervals of once every hour. Gust wind measurements of up to 20 mph (33.2 kph) are allowed, although sound level measurements may not be taken at these times.

c) Precipitation. Sound level measurements are prohibited under any condition of precipitation, however, measurements may be made with snow on the ground. The ground surface within the measurement area must be free of standing water.

Section 952.124 Location and Operation of Sound Level Measurement System

a) Microphone Position

1) Unless mounted on a passenger car, the microphone of a sound level measurement system that conforms to this report shall be located at a height of not less than 2 feet (.6 m) nor more than 6 feet (1.8 m) above the plane of the roadway surface and not less than 3.5 feet (1.1 m) above the surface on which the microphone stands. The preferred microphone height on flat terrain is 4 feet (1.2 m).

A) When the sound level measurement system is hand-held or is otherwise monitored by a person located near its microphone, the holder must orient himself relative to the highway in a manner consistent with the recommendation of the manufacturer of the sound level measurement system.

B) In no case shall the meter holder or observer be closer than 2 feet (.6 m) from the system's microphone, nor shall he locate himself between the microphone and the vehicle being measured.

2) If mounted on a passenger car, the microphone of a sound level measurement system that conforms to this report shall be located in the following manner:

A) The microphone shall be located 1 foot (.3 m) plus or minus 1/2 foot (.15 m) above the roof of the passenger car (see Appendix I, Figure 1).

B) The microphone shall be located in the vertical plane of the edge of the roof on the driver's side of the passenger car plus or minus 1/2 foot (.15 m) (see Appendix I, Figure 2).

C) The microphone shall be located between the front and back edges of the roof of the passenger car.

D) The passenger car shall be positioned either perpendicular or parallel to the lane of travel.

b) The microphone of the sound level measurement system shall be oriented toward the traveled lane of the highway at the microphone target point at an angle that is consistent with the recommendation of the system's manufacturer. If the manufacturer of the system does not recommend an angle of orientation for its microphone, the microphone shall be oriented toward the highway at an angle of not less than 70 degrees and not more than perpendicular to the horizontal plane of the traveled lane of the highway at the microphone target point.

c) The sound level measurement system shall be set to the A-weighting network and "fast" meter response mode.

Section 952.125 Measurement Procedure

- a) In accordance with this Subpart, a measurement shall be made of the sound level generated by a motor vehicle operating through the measurement area on the traveled lane of the highway within the test site, regardless of the highway grade, load, acceleration or deceleration.

- b) The sound level generated by the motor vehicle is the highest reading observed on the sound level measurement system as the vehicle passes through the measurement area, corrected, when appropriate, in accordance with these measurement procedures. The sound level of the vehicle being measured must be observed to rise at least 6 dB(A) before the maximum sound level occurs and to fall at least 6 dB(A) after the maximum sound level occurs in order to be considered a valid sound level reading.

SUBPART D: MEASUREMENT OF NOISE EMISSIONS: STATIONARY TEST

Section 952.130 Scope of this Subpart

- a) This Subpart specifies conditions and procedures for measuring the sound level generated by a vehicle when the vehicle's engine is rapidly accelerated from idle to governed speed at wide open throttle with the vehicle stationary, its transmission in neutral, and its clutch engaged, for the purpose of ascertaining whether the motor vehicle conforms with 35 Ill. Adm. Code 902.121(c) or 902.123(d).

- b) This Subpart applies only to a motor vehicle with GVW in excess of 8,000 pounds that is equipped with an engine speed governor.

- c) Tests conducted in accordance with this Subpart may be made on either side of the vehicle.

Section 952.131 Site Characteristics

- a) The motor vehicle to be tested shall be parked on the test site. A microphone target point shall be established on the ground surface of the site on the centerline of the lane in which the motor vehicle is parked at a point that is within 3 feet (.9 m) of the longitudinal position of the vehicle's exhaust system outlet(s). A microphone location point shall be established on the ground surface not less than 35 feet (10.7 m) and not more than 83 feet (25.3 m) from the microphone target point. Within the test site is a triangular measurement area. A plan view diagram of a standard stationary test site, is shown in Appendix F.
- b) The test site must be an open site, essentially free of large sound-reflecting objects. However, the following objects may be within the test site, including the triangular measurement area:
- 1) Small cylindrical objects such as fire hydrants or telephone or utility poles located 3 feet (1 m) or more from the microphone.
 - 2) Rural mailboxes located 3 feet (1 m) or more from the microphone.
 - 3) Traffic railings of any type of construction except solid concrete barriers.
 - 4) Chain-link fences or any vegetation such as bushes, shrubs, hedges and grass.
 - 5) One or more curbs having a height of 1 foot (.3 m) or less.
- c) The following objects may be within the test site if they are outside of the triangular measurement area of the site:
- 1) Any vertical surface, regardless of size (such as a billboard), having a lower edge more than 15 feet (4.6 m) above the ground.
 - 2) Any uniformly smooth surface slanting away from the vehicle with a slope that is less than 45 degrees above the horizontal.

3) Any surface slanting away from the vehicle that is 45 degrees or more and not more than 90 degrees above the horizontal, if all points on the surface are more than 15 feet (4.6 m) above the surface of the ground in the test site.

d) 1) The surface of the ground within the measurement area must be relatively flat. The site shall be a "hard" site. However, if the site is determined to be "soft," the correction factor specified below shall be subtracted from the applicable sound level limit.

2) When measurements are made upon a test site which is "soft," a correction factor of 2 dB(A) shall be subtracted from the sound level limits of 35 Ill. Adm. Code 902.121(c) and 902.123(d).

Section 952.132 Ambient Conditions

a) Sound

1) The ambient A-weighted sound level at the microphone location point shall be measured, in the absence of motor vehicle noise emanating from within the clear zone, with fast meter response using a sound level measurement system that conforms to these procedures.

2) The measured ambient level must be 10 dB(A) or more below that level which corresponds to the maximum permissible sound level reading which is applicable at the test site at the time of testing. The maximum permissible sound level reading is the sound level limit plus the necessary site corrections.

b) Wind. Noise measurements may only be made if the measured wind velocity is 12 mph (19.3 kph) or less. The wind velocity at the test site shall be measured at the beginning of each series of noise measurements and at intervals of 5-15 minutes thereafter until it has been established that the wind velocity is essentially constant. Once this fact has been established, wind velocity measurements may be made at intervals of once every hour. Gust wind measurements of up to 20 mph (33.2 kph) are allowed, although sound level measurements may not be taken at these times.

c) Precipitation. Measurements are prohibited under any conditions of precipitation, however, measurements may be made with snow on the ground. The ground within the measurement area must be free of standing water.

Section 952.133 Location and Operation of Sound Level Measurement System

- a) The microphone of a sound level measurement system that conforms to these measurement procedures shall be located at a height of not less than 2 feet (.6 m) nor more than 6 feet (1.8 m) above the plane of the roadway surface and not less than 3.5 feet (1.1 m) above the surface on which the microphone stands. The preferred microphone height on flat terrain is 4 feet (1.2 m).

- b) When the sound level measurement system is hand-held or otherwise monitored by a person located near its microphone, the holder must orient himself relative to the highway in a manner consistent with the recommendation of the manufacturer of the sound level measurement system. In no case shall the holder or observer be closer than 2 feet (.6 m) from the system's microphone, nor shall he locate himself between the microphone and the vehicle being measured.

- c) The microphone of the sound level measurement system shall be oriented toward the vehicle at an angle that is consistent with the recommendation of the system's manufacturer. If the manufacturer of the system does not recommend an angle of orientation for its microphone, the microphone shall be oriented at an angle of not less than 70 degrees and not more than perpendicular to the horizontal plane of the test site at the microphone target point.

- d) The sound level measurement system shall be set to the A-weighting network and "fast" meter response mode.

Section 952.134 Measurement Procedure

In accordance with this Subpart, a measurement shall be made of the sound level generated by a stationary motor vehicle as follows:

- a) Park the motor vehicle on the test site as specified in this Subpart. If the motor vehicle is a combination (articulated) vehicle, park the combination so that the longitudinal centerlines of the towing vehicle and the towed vehicle or vehicles are in substantial alignment.

- b) Turn off all auxiliary equipment which is installed on the motor vehicle and which is designed to operate under normal conditions only when the vehicle is operating at a speed of 5 mph (8 kph) or less. Examples of such equipment include cranes,

asphalt spreaders, liquid or slurry pumps, auxiliary air compressors, welders and trash compactors.

c) If the motor vehicle's engine radiator fan drive is equipped with a clutch or similar device that automatically either reduces the rotational speed of the fan or completely disengages the fan from its power source in response to reduced engine cooling loads, park the vehicle before testing with its engine running at high idle or any other speed the operator may choose, for sufficient time but not more than 10 minutes, to permit the engine radiator fan to automatically disengage when the vehicle's noise emissions are measured under stationary test.

d) With the motor vehicle's transmission in neutral and its clutch engaged, rapidly accelerate the vehicle's engine from idle to its maximum governed speed with wide open throttle. Return the engine's speed to idle.

e) Observe the maximum reading on the sound level measurement system during the time the procedures specified in subsection (d) are followed. Record that reading, if the reading has not been influenced by extraneous noise sources such as motor vehicles operating on adjacent roadways.

f) Repeat the procedures specified in subsections (d) and (e) until the first two maximum sound level readings that are within 2 dB(A) of each other are recorded. Numerically average those two maximum sound level readings.

g) The average reading, obtained in accordance with subsection (f), is the sound level generated by the motor vehicle for the purpose of determining whether it conforms with the equivalent sound level limits of 35 Ill. Adm. Code 902.121(c) or 902.123(d).

SUBPART E: MICROPHONE DISTANCE CORRECTION FACTORS

Section 952.140 Microphone Distance Correction Factors

a) Scope of this Subpart

1) This Subpart specifies correction factors which are added to the applicable sound level limit to be compared with the measured sound level generated by a motor vehicle.

2) The purpose of adding a correction factor is to determine equivalent sound level limits for distances between the microphone target point and the microphone location point other than 50 feet (15.2 m).

b) Microphone Distance Correction Factors

If the distance between the microphone location point and the microphone target point is other than 50 feet (15.2 m), the equivalent sound level limit shall be determined by adding the correction factor specified in the following table to the applicable sound level limit:

DISTANCE CORRECTION FACTORS

If the distance between the microphone location point and the microphone target	The value (dB(A)) to be added to the applicable sound level limit is:
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point is:

26 feet (7.9 m) or more but less than 29 feet (8.8 m)	+7
29 feet (8.8 m) or more but less than 32 feet (9.8 m)	+6
32 feet (9.8 m) or more but less than 35 feet (10.7 m)	+5

35 feet (10.7 m) or more but less than 39 feet (11.9 m)	+3
39 feet (10.7 m) or more but less than 43 feet (13.1 m)	+2
43 feet (13.1 m) or more but less than 48 feet (14.6 m)	+1
48 feet (14.6 m) or more but less than 58 feet (17.7 m)	0
58 feet (17.7 m) or more but less than 70 feet (21.3 m)	-1
70 feet (21.3 m) or more but less than 83 feet (25.3 m)	-2
83 feet (25.3 m) or more but less than 100 feet (30.2 m)	-3

c) Application of Correction Factors

If two or more correction factors apply to a sound level limit they are applied cumulatively.

SUBPART F: EXHAUST SYSTEMS AND TIRES

Section 952.150 Exhaust Systems and Tires

a) Exhaust Systems

A motor vehicle does not conform to the visual exhaust system inspection requirements of 35 Ill. Adm. Code 902.101 and 902.123(b), if inspection of the exhaust system of the motor vehicle discloses that the system:

- 1) Has a defect which adversely affects sound reduction, such as exhaust gas leaks or alteration or deterioration of muffler elements (small traces of soot or flexible exhaust pipe sections shall not constitute a violation of 35 Ill. Adm. Code 902.101 and 902.123(b);
- 2) Is not equipped with either a muffler or other noise dissipation device; or
- 3) Is equipped with a cut-out, by-pass or similar device, unless such device is designed as an exhaust gas driven cargo unloading system.

b) Tires. A motor vehicle does not conform to the visual tire inspection requirements, 35 Ill. Adm. Code 902.102 and 902.123(b), if inspection of any tire on which the vehicle is operating discloses that the tire has a tread pattern 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.