

**MINNESOTA**  
**NOISE RELATED STATUTES AND RULES**  
**Subd. = Subdivision**  
**Subp. = Subpart**

**17.86 Urban Forest Promotion and Development**

Subd. 1-3.

Subd. 4. Transportation plantings.

The commissioner of transportation shall utilize information on varieties and placement of trees to provide maximum forestation in rest areas and other areas controlled by the department. The commissioner of transportation should consider the use of trees in conjunction with solid **noise** walls along urban freeways to the maximum extent practical.

**84.871 Equipment Requirements**

Subd. 1. Mufflers.

Except as provided in this section, every snowmobile shall be equipped at all times with a muffler in good working order which blends the exhaust noise into the overall snowmobile noise and is in constant operation to prevent excessive or unusual noise. The exhaust system shall not emit or produce a sharp popping or crackling **sound**. This section does not apply to organized races or similar competitive events held on (1) private lands, with the permission of the owner, lessee, or custodian of the land; (2) public lands and water under the jurisdiction of the commissioner of natural resources, with the commissioner's permission; or (3) other public lands, with the consent of the public agency owning the land. No person shall have for sale, sell, or offer for sale on any new snowmobile any **muffler** that fails to comply with the specifications required by the rules of the commissioner after the effective date of the rules.

**86A.23 Open Facilities; Liability Exemption**

Facilities in harbors and connecting waterways established under sections 86A.20 to 86A.24 shall be public and open to all users on equal and reasonable terms. Users shall have no cause of action against owners of land adjacent to small craft harbors and mooring facilities for damage as a result of **noise** and dust generated by facilities of iron-producing industries.

**86B.321 Noise Limits**

Subd. 1. Operation in excess of noise limits prohibited.

A person may not operate a motorboat under any condition of load, acceleration, or deceleration in a manner that exceeds the noise limits contained in subdivision 2.

Subd. 2. Noise limits.

(a) The noise limits for the total noise from the marine engine or motorboat may not exceed:

- (1) for marine engines or motorboats manufactured before January 1, 1982, a noise level of 84 decibels on the A scale measured at a distance of 50 feet from the motorboat or equivalent noise levels at other distances as specified by the commissioner in a pass-by test or 86 decibels on the A scale measured at idle in a stationary test at least four feet above the water and at least four feet behind the transom of the motorboat being tested; and
- (2) for marine engines or motorboats manufactured on or after January 1, 1982, a noise level of 82 decibels on the A scale measured at a distance of 50 feet from the motorboat or equivalent noise levels at other distances as specified by the commissioner in a pass-by test

or 84 decibels on the A scale measured at idle in a stationary test at least four feet above the water and at least four feet behind the transom of the motorboat being tested.

(b) The noise limits in paragraph (a) do not preclude enforcement of other laws relating to motorboat noise. The officer or deputy doing the testing shall determine which test or tests shall be used. Failure to pass either the pass-by or stationary idle test is a violation of this section.

(c) Equivalent noise levels under paragraph (a) shall be specified by the commissioner by written order and published in the State Register. The noise level determinations are exempt from the rulemaking provisions of chapter 14 and section 14.386 does not apply.

Subd. 3. Applicability.

The provisions of this section do not apply to motorboats operating under a permit issued under section 86B.121 or a United States Coast Guard marine event permit in a regatta or race while on trial runs or while on official trials for speed records during the time and in the designated area authorized by the permit.

### **86B.521 Motorboat Noise Control**

Subd. 1 Exhaust muffling system required.

A motor may not be used on a motorboat unless it is equipped with an efficient muffler, underwater exhaust, or other device that adequately muffles or suppresses the sound of the exhaust of the motor so as to prevent excessive or unusual **noise**. A motor may not be equipped with an altered muffler, muffler cutout, muffler bypass, or any other device designed or installed so that it can be used to continually or intermittently bypass any muffler or muffler system installed in the motorboat or to reduce or eliminate the effectiveness of such a muffler or muffler system.

Subd. 2 Sale of motor that exceeds **noise** limits prohibited.

A person may not sell or offer for sale a marine engine or motorboat that would exceed the noise limits contained in section 86B.321, subdivision 2, under a test procedure approved by the commissioner if the motor is maintained according to the manufacturer's specifications.

Subd. 3 Modification of engine to exceed **noise** limits prohibited.

(a) A person may not modify a marine engine or motorboat in a manner that will amplify or increase the noise emitted by the marine engine or motorboat above the **noise** limits contained in section 86B.321, subdivision 2, under a test procedure approved by the commissioner.

(b) A person may not operate a motorboat with an engine modified to increase **noise** above the **noise** limits.

Subd. 4 Sale of parts that cause excessive **noise** prohibited.

(a) A person may not sell or offer for sale replacement or additional parts for a marine engine or motorboat which when installed in the marine engine or motorboat will amplify or increase the **noise** emitted by the marine engine or motorboat above the **noise** limits contained in section 86B.321, subdivision 2, under a test procedure approved by the commissioner.

(b) A person may not operate a motorboat incorporating parts prohibited to be sold under paragraph (a).

Subd. 5 Applicability.

The provisions of this section do not apply to motorboats operating under a permit issued under section 86B.121 or a United States Coast Guard marine event permit in a regatta, or race, while on trial runs, or while on official trials for speed records during the time and in the designated area authorized by the permit.

Subd. 6. Rulemaking exemption.

The test procedures under subdivisions 2, 3, and 4 shall be established by written order by the commissioner and published in the State Register. The establishment of test procedures is exempt from the rulemaking provisions of chapter 14 and section 14.386 does not apply.

### **87A.02 Shooting Range Performance Standards**

Subd. 1 Adoption of standards; review.

(a) The commissioner of natural resources must develop and adopt shooting range performance standards, according to the expedited rulemaking process under section 14.389. The shooting range performance standards must provide for compliance with applicable **noise** standards under section 87A.05 and for the safe use of shooting ranges within their boundaries, including the containment of projectiles.

(b) The shooting range performance standards must provide for the operation of shooting preserves within the boundaries of the preserve, including an exemption from any discharge distance limitations generally applicable to hunting on other land, when the shooting preserve is in compliance with all other applicable laws and is in operation on or before the effective date of the performance standards adopted under this section or prior to the development of any structure that would cause the preserve to be out of compliance with the discharge distance.

(c) The commissioner must review the shooting range performance standards at least once every five years and revise them if necessary for the safe operation of shooting ranges.

(d) In the adoption of any amendments to the shooting range performance standards adopted under paragraph (a), the commissioner shall follow all notice and public hearing requirements for the regular rule adoption process under sections 14.001 to 14.28.

Subd. 2 Interim standards.

Until the commissioner of natural resources adopts the shooting range performance standards under subdivision 1, paragraph (a), the November 1999 revised edition of the National Rifle Association's Range Source Book: A Guide to Planning and Construction shall serve as the interim shooting range performance standards, having the full effect of the shooting range performance standards for purposes of this chapter. The interim shooting range performance standards sunset and have no further effect under this chapter upon the effective date of the shooting range performance standards adopted under subdivision 1, paragraph (a).

### **87A.03 Compliant Ranges; Authorized Activities**

Subd. 1 Authorized activities.

A shooting range that operates in compliance with the shooting range performance standards must be permitted to do all of the following within its geographic boundaries, under the same or different ownership or occupancy, if done in accordance with shooting range performance standards:

- (1) operate the range and conduct activities involving the discharge of firearms;
- (2) expand or increase its membership or opportunities for public participation related to the primary activity as a shooting range;
- (3) make those repairs or improvements desirable to meet or exceed requirements of shooting range performance standards;
- (4) increase events and activities related to the primary activity as a shooting range;

(5) conduct shooting activities and discharge firearms daily between 7:00 a.m. and 10:00 p.m. A local unit of government with zoning jurisdiction over a shooting range may extend the hours of operation by the issuance of a special or conditional use permit; and

(6) acquire additional lands to be used for buffer zones or **noise** mitigation efforts or to otherwise comply with this chapter.

Subd. 2 Nonconforming use.

A shooting range that is a nonconforming use shall be allowed to conduct additional shooting activities within the range's lawful property boundaries as of the date the range became a nonconforming use, provided the shooting range remains in compliance with **noise** and shooting range performance standards under this chapter.

Subd. 3

#### **87A.04 Mitigation Area**

(a) Except for those uses, developments, and structures in existence or for which approval has been granted by October 1, 2005, or as provided in paragraph (b), no change in use, new development, or construction of a structure shall be approved for any portion of property within 750 feet of the perimeter property line of an outdoor shooting range if the change in use, development, or construction would cause an outdoor shooting range in compliance with this chapter to become out of compliance.

(b) A change in use, new development, or construction of a structure subject to this section may be approved if the person seeking the approval or, at the discretion of the governing body, the approving authority agrees to provide any mitigation required to keep the range in compliance with this chapter. The person requesting an approval subject to this section is responsible for providing documentation if no mitigation is required under this section. Failure to provide the documentation or any mitigation required under this section exempts the range from being found out of compliance with the shooting range performance and **noise** standards of this chapter with regard to the property responsible for the mitigation if the failure to provide the documentation or required mitigation is the sole basis for the range being out of compliance with the shooting range performance standards. Any action brought by the owner of the property against the range is subject to section 87A.06. With the permission of the range operator, any mitigation required under this section may be provided on the range property.

#### **87A.05 Noise Standards**

Allowable noise levels for the operation of a shooting range are the levels determined by replacing the steady state noise  $L_{10}$  and  $L_{50}$  state standards for each period of time within each noise area's classification with a single  $L_{eq}(h)$  standard for impulsive noise that is two dBA lower than that of the  $L_{10}$  level for steady state noise. The noise level shall be measured outside of the range property at the location of the receiver's activity according to Minnesota Rules, parts 7030.0010 to 7030.0080, as in effect on May 28, 2005. For purposes of this section, " $L_{eq}(h)$ " means the energy level that is equivalent to a steady state level that contains the same amount of sound energy as the time varying sound level for a 60-minute time period.

#### **87A.06 Nuisance Actions; Compliance with Shooting Range Performance Standards**

A person who owns, operates, or uses a shooting range in this state that is in compliance with shooting range performance standards is not subject to any nuisance action for damages or

equitable relief based on **noise** or other matters regulated by the shooting range performance standards. This section does not prohibit other actions.

### **97A.137 Hunting, Fishing and Trespassing in Wildlife Management Areas**

Subd. 1 -3

Subd. 4 Exemption from certain local ordinances.

(a) Wildlife management areas that are established according to section 86A.05, subdivision 8; designated under section 97A.133 or 97A.145; and 160 contiguous acres or larger are exempt from local ordinances that limit the taking of game and fish or vegetation management in the unit as authorized by state law.

(b) Wildlife management areas that are established according to section 86A.05, subdivision 8; designated under section 97A.133 or 97A.145; and at least 40 contiguous acres and less than 160 contiguous acres are exempt from local ordinances that:

(1) - (3)

(4) **restrict noise**;

(5) - (6)

### **97B.085 Use of Radios to Take Animals.**

Subd. 1 - 2

Subd. 3 Communication excepted.

This section does not prohibit the use of:

(1) one-way radio communication between a handler and a dog; or

(2) a remote-controlled animal **noise** caller for taking crows, fur-bearing animals, and unprotected animals.

### **97C.376 Bow Fishing**

Subd. 1 -2

Subd. 3.Nighttime restrictions on motors.

From sunset to sunrise, a person bow fishing with the assistance of a gasoline-powered motor must use a four-stroke engine powered generator. The **noise** limits for total noise while bow fishing from sunset to sunrise shall not exceed a **noise** level of 65 decibels on the A scale measured at a distance of 50 feet from the motorboat or equivalent **noise** levels at other distances as specified by the commissioner in a pass-by test or 67 decibels on the A scale measured at idle in a stationary test at least four feet above the water and at least four feet behind the transom of the motorboat being tested. The **noise** levels under section 86B.321 apply to persons traveling to and from bow fishing sites from sunset to sunrise.

Subd. 4 - 5

### **116.06 Definitions**

Subd. 1 - 14.

Subd. 15 Noise.

"Noise" means any sound not occurring in the natural environment, including, but not limited to, sounds emanating from aircraft and highways, and industrial, commercial, and residential sources.

Subd. 16 Noise pollution.

"Noise pollution" means the presence in the outdoor atmosphere of any noise or combination of noises in such quantity, at such levels, of such nature and duration or under such conditions as could potentially be injurious to human health or welfare, to animal or plant life, or to property, or could interfere unreasonably with the enjoyment of life or property.

Subd. 17 Person.

"Person" means any human being, any municipality or other governmental or political subdivision or other public agency, any public or private corporation, any partnership, firm, association, or other organization, any receiver, trustee, assignee, agent, or other legal representative of any of the foregoing, or any other legal entity, but does not include the Pollution Control Agency.

Subd. 18 -24

### **116.07 Powers and Duties**

Subd. 1 Generally.

In addition to any powers or duties otherwise prescribed by law and without limiting the same, the Pollution Control Agency shall have the powers and duties hereinafter specified.

Subd. 2 Adoption of standards.

The Pollution Control Agency shall improve air quality by promoting, in the most practicable way possible, the use of energy sources and waste disposal methods which produce or emit the least air contaminants consistent with the agency's overall goal of reducing all forms of pollution. The agency shall also adopt standards of air quality, including maximum allowable standards of emission of air contaminants from motor vehicles, recognizing that due to variable factors, no single standard of purity of air is applicable to all areas of the state. In adopting standards the Pollution Control Agency shall give due recognition to the fact that the quantity or characteristics of air contaminants or the duration of their presence in the atmosphere, which may cause air pollution in one area of the state, may cause less or not cause any air pollution in another area of the state, and it shall take into consideration in this connection such factors, including others which it may deem proper, as existing physical conditions, zoning classifications, topography, prevailing wind directions and velocities, and the fact that a standard of air quality which may be proper as to an essentially residential area of the state, may not be proper as to a highly developed industrial area of the state. Such standards of air quality shall be premised upon scientific knowledge of causes as well as effects based on technically substantiated criteria and commonly accepted practices. No local government unit shall set standards of air quality which are more stringent than those set by the Pollution Control Agency.

The Pollution Control Agency shall promote solid waste disposal control by encouraging the updating of collection systems, elimination of open dumps, and improvements in incinerator practices. The agency shall also adopt standards for the control of the collection, transportation, storage, processing, and disposal of solid waste and sewage sludge for the prevention and abatement of water, air, and land pollution, recognizing that due to variable factors, no single standard of control is applicable to all areas of the state. In adopting standards, the Pollution Control Agency shall give due recognition to the fact that elements of control which may be reasonable and proper in densely populated areas of the state may be unreasonable and improper in sparsely populated or remote areas of the state, and it shall take into consideration in this connection such factors, including others which it may deem proper, as existing physical

conditions, topography, soils and geology, climate, transportation, and land use. Such standards of control shall be premised on technical criteria and commonly accepted practices.

The Pollution Control Agency shall also adopt standards describing the maximum levels of **noise** in terms of sound pressure level which may occur in the outdoor atmosphere, recognizing that due to variable factors no single standard of sound pressure is applicable to all areas of the state. Such standards shall give due consideration to such factors as the intensity of **noises**, the types of **noises**, the frequency with which noises recur, the time period for which **noises** continue, the times of day during which **noises** occur, and such other factors as could affect the extent to which **noises** may be injurious to human health or welfare, animal or plant life, or property, or could interfere unreasonably with the enjoyment of life or property. In adopting standards, the Pollution Control Agency shall give due recognition to the fact that the quantity or characteristics of **noise** or the duration of its presence in the outdoor atmosphere, which may cause **noise** pollution in one area of the state, may cause less or not cause any **noise** pollution in another area of the state, and it shall take into consideration in this connection such factors, including others which it may deem proper, as existing physical conditions, zoning classifications, topography, meteorological conditions and the fact that a standard which may be proper in an essentially residential area of the state, may not be proper as to a highly developed industrial area of the state. Such **noise** standards shall be premised upon scientific knowledge as well as effects based on technically substantiated criteria and commonly accepted practices. No local governing unit shall set standards describing the maximum levels of sound pressure which are more stringent than those set by the Pollution Control Agency.

The Pollution Control Agency shall adopt standards for the identification of hazardous waste and for the management, identification, labeling, classification, storage, collection, transportation, processing, and disposal of hazardous waste, recognizing that due to variable factors, a single standard of hazardous waste control may not be applicable to all areas of the state. In adopting standards, the Pollution Control Agency shall recognize that elements of control which may be reasonable and proper in densely populated areas of the state may be unreasonable and improper in sparsely populated or remote areas of the state. The agency shall consider existing physical conditions, topography, soils, and geology, climate, transportation and land use. Standards of hazardous waste control shall be premised on technical knowledge, and commonly accepted practices. Hazardous waste generator licenses may be issued for a term not to exceed five years. No local government unit shall set standards of hazardous waste control which are in conflict or inconsistent with those set by the Pollution Control Agency.

A person who generates less than 100 kilograms of hazardous waste per month is exempt from the following agency hazardous waste rules:

- (1) rules relating to transportation, manifesting, storage, and labeling for photographic fixer and x-ray negative wastes that are hazardous solely because of silver content; and
- (2) any rule requiring the generator to send to the agency or commissioner a copy of each manifest for the transportation of hazardous waste for off-site treatment, storage, or disposal, except that counties within the metropolitan area may require generators to provide manifests.

Nothing in this paragraph exempts the generator from the agency's rules relating to on-site accumulation or outdoor storage. A political subdivision or other local unit of government may not adopt management requirements that are more restrictive than this paragraph.

Subd. 2a Exemptions from standards.

No standards adopted by any state agency for limiting levels of **noise** in terms of sound pressure which may occur in the outdoor atmosphere shall apply to (1) segments of trunk highways constructed with federal interstate substitution money, provided that all reasonably available **noise** mitigation measures are employed to abate **noise**, (2) an existing or newly constructed segment of a highway, provided that all reasonably available **noise** mitigation measures, as approved by the commissioners of the Department of Transportation and Pollution Control Agency, are employed to abate **noise**, (3) except for the cities of Minneapolis and St. Paul, an existing or newly constructed segment of a road, street, or highway under the jurisdiction of a road authority of a town, statutory or home rule charter city, or county, except for roadways for which full control of access has been acquired, (4) skeet, trap or shooting sports clubs, or (5) motor vehicle race events conducted at a facility specifically designed for that purpose that was in operation on or before July 1, 1996. Nothing herein shall prohibit a local unit of government or a public corporation with the power to make rules for the government of its real property from regulating the location and operation of skeet, trap or shooting sports clubs, or motor vehicle race events conducted at a facility specifically designed for that purpose that was in operation on or before July 1, 1996.

Subd. 2b - 4

### **116D.02 Declaration of State Environmental Policy**

Subd. 1 Policy.

The legislature, recognizing the profound impact of human activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high density urbanization, industrial expansion, resources exploitation, and new and expanding technological advances and recognizing further the critical importance of restoring and maintaining environmental quality to the overall welfare and development of human beings, declares that it is the continuing policy of the state government, in cooperation with federal and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which human beings and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of the state's people.

Subd. 2 State responsibilities.

In order to carry out the policy set forth in Laws 1973, chapter 412, it is the continuing responsibility of the state government to use all practicable means, consistent with other essential considerations of state policy, to improve and coordinate state plans, functions, programs and resources to the end that the state may:

(1) – (16)

(17) minimize **noise**, particularly in urban areas;

(18) - (19)

### **116G.151 Required Environmental Assessment Worksheet; Facilities in Mississippi River Area.**

(a) Until completion of an environmental assessment worksheet that complies with the rules of the Environmental Quality Board and this section, a state or local agency may not issue a permit for construction or operation of a metal materials shredding project with a processing capacity in excess of 20,000 tons per month that would be located in the Mississippi River critical area, as



described in section 116G.15, upstream from United States Corps of Engineers Lock and Dam Number One.

(b) The Pollution Control Agency is the responsible governmental unit for the preparation of an environmental assessment worksheet required under this section.

(c) In addition to the contents required under law and rule, an environmental assessment worksheet completed under this section must also include the following major categories:

(1) – (8)

(9) potential effects from fugitive emissions, fumes, dust, **noise**, and vibrations from project operations;

(10) – (11)

(d) – (h)

### **161.125 Sound Abatement Along Highways**

Subd. 1 - 2

Subd. 3 Sound-abatement measures.

(a) For the purpose of this section, **sound-abatement** measures include but are not limited to the following:

(1) traffic-management measures, including reduced speed limits or exclusion and rerouting of excessively noisy vehicles;

(2) design and construction measures, including use of sound-absorbing road surface materials, landscaping and planning, acquisition of buffer zones or noise insulation of buildings on abutting property;

(3) enforcement of the motor vehicle source **noise** limits of the Pollution Control Agency and of the federal Bureau of Motor Carrier Safety; and

(4) other measures designed for the purpose of reducing motor vehicle source noise or reducing the effects of that **noise**.

(b) The commissioner of public safety shall cooperate with the commissioner of transportation in implementing any sound-abatement measures that include law enforcement activities.

### **169.69 Muffler**

Every motor vehicle shall at all times be equipped with a muffler in good working order which blends the exhaust noise into the overall vehicle noise and is in constant operation to prevent excessive or unusual noise, and no person shall use a muffler cutout, bypass, or similar device upon a motor vehicle on a street or highway. The exhaust system shall not emit or produce a sharp popping or crackling sound. Every motor vehicle shall at all times be equipped with such parts and equipment so arranged and kept in such state of repair as to prevent carbon monoxide gas from entering the interior of the vehicle.

No person shall have for sale, sell or offer for sale or use on any motor vehicle any muffler that fails to comply with the specifications as required by the commissioner of public safety.

### **169.693 Motor Vehicle Noise Limits**

It is unlawful to operate a motor vehicle in violation of motor vehicle noise rules adopted by the Pollution Control Agency.

### **169.974 Motorcycle, Motor Scooter, Motor Bike**

Subd. 1 - 7

Subd. 3 Vehicle equipment.

(a) Any motorcycle with a seat designed or suited for use by a passenger shall be equipped with footrests for the passenger. No person shall operate any motorcycle on the streets and highways after January 1, 1971, unless such motorcycle is equipped with at least one rear view mirror so attached and adjusted as to reflect to the operator a view of the roadway for a distance of at least 200 feet to the rear of the motorcycle and is equipped with not less than one horn which shall be **audible at a distance of at least 200 feet under normal conditions.**

(b) All other applicable provisions of this chapter pertaining to motorcycle and other motor vehicle equipment shall apply to motorcycles, except those which by their nature have no application.

Subd. 4 - 6

Subd. 7 **Noise** limits.

After December 31, 1978, noise rules adopted by the Pollution Control Agency for motor vehicles pursuant to section 169.693 shall also apply to motorcycles.

### **325E.38 Sales of Certain CFC Products Prohibited**

Subd. 1 – 3

Subd. 4 Noise horns.

A person may not offer for sale or sell CFC noise horns.

Subd. 5 - 6

### **327C.09 Termination**

Subd. 1 - 3

Subd. 4 Rule violations.

The resident fails to comply with a rule within 30 days after receiving written notice of the alleged noncompliance, except the 30-day notice requirement does not apply to nonpayment of rent. To be effective, the notice must specify the date, approximate time, and nature of the alleged rule violation. Loud **noise** created by residents, guests, or their equipment is a rule violation. After written notice has been provided for two prior incidents, loud **noise** is a violation of subdivision 5.

Subd. 5 - 8

### **360.075 Violations, Penalties**

Subd. 1 Misdemeanor.

Every person who:

(1) – (12)

(13) except while in landing or taking off, flies at such low levels as to endanger persons on the surface beneath, or engages in advertising through the playing of music or transcribed or oral announcements, or makes any **noise** with any siren, horn, whistle, or other audible device which is not necessary for the normal operation of the aircraft, except that sound amplifying devices may be used in aircraft when operated by or under the authority of any agency of the state or federal government for the purpose of giving warning or instructions to persons on the ground;

(14) – (15)

Subd. 2.- 4

Subd. 5. Careless or reckless operation.

Every person who operates an aircraft in the air or on the ground or water, in a careless or reckless manner so as to endanger the life or property of another shall be guilty of a misdemeanor.

Subd. 6.

#### **471.985 County and City Ordinances Prohibiting Trespassing**

Subd. 1

Subd. 2 Determination of purpose.

To determine the purpose of an uninvited entry of a person or motor vehicle, factors to be considered shall include, but are not limited to, the following:

(a) – (d)

(e) **noise level**;

(f) – (h)

Subd. 3 - 4

#### **473.192 Aircraft Noise Attenuation**

Subd. 1 – 2

Subd. 3 Ordinance.

A municipality in the metropolitan area that, in part or in whole, is within the aircraft noise zones designated in the transportation policy plan may adopt and enforce ordinances and controls to regulate building construction methods and materials for the purpose of attenuating aircraft **noise** in habitable buildings in and around the **noise** zone. The ordinance or control shall not apply to remodeling or rehabilitating an existing residential building nor to the construction of an appurtenance to an existing residential building. An ordinance adopted by a municipality must be adequate to implement the Metropolitan Council's guidelines for land use compatibility with aircraft **noise**. Section 326B.121 does not apply to ordinances adopted under this section.

Subd. 4 MAC **noise** abatement.

Nothing in this section shall be construed to diminish the responsibility of the Metropolitan Airports Commission to conduct **noise** abatement programs under other state or federal law.

#### **1305.0907 [F] Section 907, Fired Alarm and Detection Systems**

907.9.2 Audible alarms. Audible alarm notification appliances shall be provided and shall sound a distinctive sound that is not to be used for any purpose other than that of a fire alarm. The audible alarm notification appliances shall provide a sound pressure level of 15 decibels (dBA) above the average ambient sound level or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is greater, in every occupied space within the building. The minimum sound pressure levels shall be: 75 dBA in Groups R and I-1 occupancies; 90 dBA in mechanical equipment rooms; and 60 dBA in other occupancies. The maximum sound pressure level for audible alarm notification appliances shall be 110 dBA at the minimum hearing distance from the audible appliance. Where the average ambient **noise** is greater than 105 dBA, visible alarm notification appliances shall be provided in accordance with NFPA 72 and audible alarm notification appliances shall not be required.

## **1322.1104 IRC Section N1104, Mechanical Ventilation Systems**

N1104.1 – N1104.3

N1104.4.1 - N1104.4.8

N1104.4.9 Noise and vibration. Mechanical ventilation system components shall be installed to minimize noise and vibration transmission. The equipment manufacturer's installation instructions shall be followed, and materials provided by the equipment manufacturer shall be used for this purpose. In the absence of specific materials or instructions, vibration dampening materials such as rubber grommets and flexible straps shall be used when connecting fans and heat exchangers to the building structure, and isolation duct connectors shall be used to mitigate noise transmission.

N1104.4.10 -N1104.4.12

## **2400.2720 Standards for Mixed Commercial-Residential Uses**

A. Permitted home occupation uses are as follows:

(1) – (8)

(9) The use must not adversely affect the residential character of the neighborhood due to **noise**, odor, smoke, dust, gas, heat, glare, vibration, electrical interference, traffic congestion, number of deliveries, hours of operation, or any other annoyance.

## **6100.1900 Motor Vehicles and Snowmobiles in State Parks, Forest Campgrounds and Day Use Areas**

Subp. 1 - 2

Subp. 3 Speed limit.

A motor vehicle shall not be operated in excess of posted speeds or in a reckless, careless, or exhibitive manner. No person shall operate a vehicle in such a manner as to create unnecessary engine **noise**, tire squeals, skidding, or sliding.

Subp. 4

Subp. 5 Snowmobiles.

No person shall operate a snowmobile in a state park unless on trails and areas posted and designated for snowmobile use, under conditions of snow cover considered adequate for protection of the park by the park manager. Within state parks no snowmobile shall be operated before **8:00 a.m. or after 10:00 p.m.**, except as otherwise posted.

## **6102.0040 Required Equipment**

Subp 1 - 3

Subp. 4 Mufflers.

A. No person shall operate a vehicle unless it is equipped with a muffler having a spark arrestor approved by the United States Forest Service as described by Code of Federal Regulations, title 36, chapter II, section 261.52, paragraph (j).

B. Vehicles shall not be sold, offered for sale, or operated in this state unless equipped so that overall **noise** emission does not exceed a sound level limitation of not more than 99 decibels on the A scale from a distance of 20 inches using test procedures and instrumentation as set forth in the Society of Automotive Engineers' Standard, SAE J1287, June 1988, or, if different procedures or instrumentation are used, a **noise** level equivalent to that level.

C. No **noise** suppressing system or muffler shall be equipped with a cutout, bypass, or similar device and no person shall modify or alter that system or its operation in any manner which will amplify or increase the noise emitted by the vehicle's motor to exceed the noise limits established in this subpart, except for organized events as authorized by Minnesota Statutes, sections 84.795, subdivision 7; 84.804, subdivision 5; and 84.928, subdivision 5.

### **6100.5700 Required Equipment**

Subp. 1 -4

Subp. 5 Mufflers.

A. No person shall operate a snowmobile unless it is equipped with a muffler as required by law and these rules, except that snowmobiles may be operated in organized events as authorized by Minnesota Statutes, section 84.871, without such a muffler.

B. No snowmobile manufactured on or after June 30, 1970, and before February 1, 1972, for sale in Minnesota, except snowmobiles designed for competition purposes only, shall be sold, or offered for sale, unless it is equipped with a muffler that limits engine **noise** to not more than 86 decibels on the A scale at 50 feet.

C. No snowmobile manufactured on or after February 1, 1972, for sale in Minnesota, except snowmobiles designed for competition purposes only, shall be sold, or offered for sale, unless it is equipped with a muffler that limits engine **noise** to not more than 82 decibels on the A scale at 50 feet.

D. No snowmobile manufactured on or after April 1, 1975, except a snowmobile designed for competition purposes only, shall be sold, offered for sale, or operated in Minnesota unless it is so equipped and has been certified by the manufacturer to conform to a **sound level** limitation of not more than 78 decibels on the A scale at 50 feet as originally equipped.

E. In certifying that a new snowmobile complies with the **noise** limitation requirements of this rule, a manufacturer shall make such a certification based on measurements made in accordance with the SAE Recommended Practice J192(a), as set forth in the Report of the Vehicle Sound Level Committee, as approved by the Society of Automotive Engineers September 1970 and revised November 1973.

F. No snowmobile shall be sold or offered for sale in Minnesota unless its maker has previously furnished the commissioner with a certificate of compliance certifying that all snowmobiles made by that maker meet or exceed the applicable **noise** level restrictions established by these rules. The certification of compliance shall be in the form of a "Snowmobile Safety Certification Committee" label conspicuously attached to the machine showing certification by the Snowmobile Safety and Certification Committee, Inc., or a label showing compliance with Snowmobile Safety Certification Committee standards accompanied by a letter containing test results of an evaluation of **noise** levels by a competent independent testing laboratory. Snowmobiles intended for competition purposes only shall be exempt from this part provided a separate placard identifying that such snowmobile is not so equipped is conspicuously and permanently affixed thereto.

G. Except for organized events as authorized by Minnesota Statutes, section 84.871, no snowmobile shall be modified by any person in any manner that shall amplify or otherwise increase total **noise** level above that emitted by the snowmobile as originally equipped, regardless of date of manufacture.

### **7011.0858 Noise**

The owner or operator of a concrete manufacturing plant shall comply with the noise pollution control rules in chapter 7030.

### **7030.0010 Incorporation by Reference**

For the purpose of chapter 7030, American National Standards Institute, Specification for Sound Level Meters, S1.4-1983 is incorporated by reference. This publication is available from the American National Standards Institute, 1430 Broadway, New York, N.Y. 10018 and can be found at: the offices of the Minnesota Pollution Control Agency, 1935 West County Road B-2, Roseville, Minnesota 55113; the Government Documents Section, Room 409, Wilson Library, University of Minnesota, 309 19th Avenue South, Minneapolis, Minnesota 55454; and the State of Minnesota Law Library, 25 Rev. Dr. Martin Luther King Jr. Blvd., Saint Paul, Minnesota 55155. This document is not subject to frequent change.

The Federal Highway Administration publication, Sound Procedures for Measuring Highway Noise: Final Report, FHWA-DP-45-1R (August 1981) is incorporated by reference. This publication is available from the United States Department of Transportation, Federal Highway Administration, 1000 North Globe Road, Arlington, Virginia 22201 and can be found at: the offices of the Minnesota Pollution Control Agency, 1935 West County Road B-2, Roseville, Minnesota 55113; the Government Documents Section, Room 409, Wilson Library, University of Minnesota, 309 19th Avenue South, Minneapolis, Minnesota 55454; and the State of Minnesota Law Library, 25 Rev. Dr. Martin Luther King Jr. Blvd., Saint Paul, Minnesota 55155. This document is not subject to frequent change.

### **7030.0020 Definitions**

Subp. 1 Application.

The terms used in this chapter have the meanings given them in this part.

Subp. 2 A-weighted.

"A-weighted" means a specific weighting of the sound pressure level for the purpose of determining the human response to sound. The specific weighting characteristics and tolerances are those given in American National Standards Institute S1.4-1983, section 5.1.

Subp. 3 Daytime.

"Daytime" means those hours from 7:00 a.m. to 10:00 p.m.

Subp. 4 dB(A).

"dB(A)" means a unit of sound level expressed in decibels (dB) and A-weighted.

Subp. 5 Decibel.

"Decibel" means a unit of sound pressure level, abbreviated as dB.

Subp. 6 Impulsive noise.

"Impulsive noise" means either a single sound pressure peak (with either a rise time less than 200 milliseconds or total duration less than 200 milliseconds) or multiple sound pressure peaks (with either rise times less than 200 milliseconds or total duration less than 200 milliseconds) spaced at least by 200 millisecond pauses.

Subp. 7 L10.

"L10" means the sound level, expressed in dB(A), which is exceeded ten percent of the time for a one hour survey, as measured by test procedures approved by the commissioner.

Subp. 8 L50.

"L50" means the sound level, expressed in dB(A), which is exceeded 50 percent of the time for a one hour survey, as measured by test procedures approved by the commissioner.

Subp. 9 Municipality.

"Municipality" means a county; a city; a town; a regional planning and development commission established under Minnesota Statutes, chapter 473; the metropolitan council; or other governmental subdivision of the state responsible by law for controlling or restricting land use within its jurisdiction.

Subp. 10 Nighttime.

"Nighttime" means those hours from 10:00 p.m. to 7:00 a.m.

Subp. 11 Person.

"Person" means any human being, any municipality or other governmental or political subdivision or other public department or agency, any public or private corporation, any partnership, firm, association, or other organization, any receiver, trustee, assignee, agency, legal entity, other than a court of law, or any legal representative of any of the foregoing, but does not include the agency.

Subp. 12 Sound pressure level.

"Sound pressure level", in decibels, means 20 times the logarithm to the base 10 of the ratio of the pressure to the reference pressure. The reference pressure shall be 20 micronewtons per square meter.

### 7030.0030 Noise Control Requirement

No person may violate the standards established in part 7030.0040, unless exempted by Minnesota Statutes, section 116.07, subdivision 2a. Any municipality having authority to regulate land use shall take all reasonable measures within its jurisdiction to prevent the establishment of land use activities listed in noise area classification (NAC) 1, 2, or 3 in any location where the standards established in part 7030.0040 will be violated immediately upon establishment of the land use.

### 7030.0040 Noise Standards

Subp 1 Scope.

These standards describe the limiting levels of sound established on the basis of present knowledge for the preservation of public health and welfare. These standards are consistent with speech, sleep, annoyance, and hearing conservation requirements for receivers within areas grouped according to land activities by the noise area classification (NAC) system established in part 7030.0050. However, these standards do not, by themselves, identify the limiting levels of impulsive noise needed for the preservation of public health and welfare. Noise standards in subpart 2 apply to all sources.

Subp. 2 Noise standards.

Noise Area Classification	Daytime		Nighttime	
	L <sub>50</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>10</sub>
1	60	65	50	55
2	65	70	65	70
3	75	80	75	80

## 7030.0050 Noise Area Classification

### Subp.1 Applicability.

The noise area classification is based on the land use activity at the location of the receiver and determines the noise standards applicable to that land use activity unless an exception is applied under subpart 3.

### Subp. 2 Noise area classifications.

The noise area classifications and the activities included in each classification are listed below:

Noise Classification	Area	Land Use Activities
1		Household Units (includes farm houses) Group quarters Residential hotels Mobile home parks or courts Transient lodging Other residential Motion picture production Medical and other health services Correctional institutions Educational services Religious activities Cultural activities and nature exhibitions Entertainment assembly Camping and picnicking areas (designated) Resorts and group camps Other cultural, entertainment, and recreational activities.
2		Railroad terminals (passenger) Railroad terminals (passenger and freight) Rapid rail transit and street railway passenger terminals Bus passenger terminals (intercity) Bus passenger terminals (local) Bus passenger terminals (intercity and local) Other motor vehicle transportation Airport and flying field terminals (passenger) Airport and flying field terminals (passenger and freight) Marine terminals (passenger) Marine terminals (passenger and freight) Automobile parking



Telegraph message centers  
Transportation services and arrangements  
Wholesale trade  
Retail trade -- building materials, hardware, and farm equipment  
Retail trade -- general merchandise  
Retail trade -- food  
Retail trade -- automotive, marine craft, aircraft, and accessories  
Retail trade -- apparel and accessories  
Retail trade -- furniture, home furnishings, and equipment  
Retail trade -- eating and drinking  
Other retail trade  
Finance, insurance, and real estate services  
Personal services  
Business services  
Repair services  
Legal services  
Other professional services  
Contract construction services  
Governmental services (except correctional institutions)  
Miscellaneous services (except religious activities)  
Public assembly (except entertainment assembly and race tracks)  
Amusements (except fairgrounds and amusement parks)  
Recreational activities (except designated camping and picnicking areas)  
Parks.

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3 Food and kindred products -- manufacturing  
Textile mill products -- manufacturing  
Apparel and other finished products made from fabrics, leather, and similar materials -- manufacturing  
Lumber and wood products (except furniture) -- manufacturing  
Furniture and fixtures -- manufacturing  
Paper and allied products -- manufacturing  
Printing, publishing, and allied industries  
Chemicals and allied products -- manufacturing  
Petroleum refining and related industries  
Rubber and miscellaneous plastic products -- manufacturing  
Stone, clay, and glass products -- manufacturing

Primary metal industries  
 Fabricated metal products -- manufacturing  
 Professional, scientific, and controlling instruments; photographic and optical goods;  
 watches and clocks -- manufacturing  
 Miscellaneous manufacturing (except motion picture production)  
 Railroad, rapid transit, and street railway transportation (except passenger terminals)  
 Motor vehicle transportation (except passenger terminals)  
 Aircraft transportation (except passenger terminals)  
 Marine craft transportation (except passenger and freight terminals)  
 Highway and street right-of-way  
 Communication (except telegraph message centers)  
 Utilities  
 Other transportation, communication, and utilities (except transportation services and  
 arrangements)  
 Race tracks  
 Fairgrounds and amusement parks  
 Agricultural  
 Agricultural and related activities  
 Forestry activities and related services (including commercial forest land, timber  
 production, and other related activities)  
 Fishing activities and related services  
 Mining activities and related services  
 Other resource production and extraction  
 All other activities not otherwise listed.

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4	Undeveloped and unused land area (excluding noncommercial forest development) Noncommercial forest development Water areas Vacant floor area Under construction Other undeveloped land and water areas.
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**Subp. 3 Exceptions.**

The noise area classification for a land use may be changed in the following ways if the applicable conditions are met.

A. The daytime standards for noise area classification 1 shall be applied to noise area classification 1 during the nighttime if the land use activity does not include overnight lodging.

B. The standards for a building in a noise area classification 2 shall be applied to a building in a noise area classification 1 if the following conditions are met:

- (1) the building is constructed in such a way that the exterior to interior sound level attenuation is at least 30 dB(A);

- (2) the building has year-round climate control; and
  - (3) the building has no areas or accommodations that are intended for outdoor activities.
- C. The standards for a building in a noise area classification 3 shall be applied to a building in a noise area classification 1 if the following conditions are met:
- (1) the building is constructed in such a way that the exterior to interior sound level attenuation is at least 40 dB(A);
  - (2) the building has year-round climate control; and
  - (3) the building has no areas or accommodations that are intended for outdoor activities.
- D. The standards for a building in a noise area classification 3 shall be applied to a building in a noise area classification 2 if the following conditions are met:
- (1) the building is constructed in such a way that the exterior to interior sound level attenuation is at least 30 dB(A);
  - (2) the building has year-round climate control; and
  - (3) the building has no areas or accommodations that are intended for outdoor activities.

### **7030.0060 Measurement Methodology**

#### **Subp. 1 Measurement location**

Measurement of sound must be made at or within the applicable NAC at the point of human activity which is nearest to the noise source. All measurements shall be made outdoors.

#### **Subp. 2 Equipment specifications**

All sound level measuring devices must meet Type O, I, II, or S specifications under American National Standards Institute S1.4-1983.

#### **Subp. 3 Calibration**

All sound level measuring devices must, at a minimum, be externally field calibrated before and after monitoring using a calibration device of known frequency and sound pressure level.

#### **Subp. 4 Measurement procedures.**

The following procedures must be used to obtain representative sound level measurements:

- A. Measurements must be made at least three feet off the ground or surface and away from natural or artificial structures which would prevent an accurate measurement.
- B. Measurements must be made using the A-weighting and fast response characteristics of the sound measuring device as specified in American National Standards Institute S1.4-1983.
- C. Measurements must not be made in sustained winds or in precipitation which results in a difference of less than ten decibels between the background noise level and the noise source being measured.
- D. Measurements must be made using a microphone which is protected from ambient conditions which would prevent an accurate measurement.

#### **Subp. 5. Data documentation**

A summary sheet for all sound level measurements shall be completed and signed by the person making the measurements. At a minimum, the summary sheet shall include:

- A. date;
- B. time;
- C. location;
- D. noise source;
- E. wind speed and direction;
- F. temperature;

- G. humidity;
- H. make, model, and serial number of measuring equipment;
- I. field calibration results;
- J. monitored levels; and
- K. site sketch indicating noise source, measurement location, directions, distances, and obstructions.

### **7030.0070 Sound Attenuation Measurement Methodology**

Subp. 1 Purpose.

Sound level measurements made for assessing sound attenuation as specified in part 7030.0050, subpart 3, item B, C, or D, shall be made according to the requirements of this part.

Subp. 2 Equipment.

The equipment shall meet the requirements specified in part 7030.0060, subpart 2.

Subp. 3 Calibration.

The equipment must meet the calibration requirements specified in part 7030.0060, subpart 3.

Subp. 4 Measurement procedure.

The measurement procedure described in FHWA-DP-45-1R, section 8 must be used for determination of the sound attenuation.

Subp. 5 Equivalent methods.

Methods equivalent to those described in subpart 4 may be used provided they are approved by the commissioner of the Minnesota Pollution Control Agency. The commissioner shall approve an alternative method if the commissioner finds that the method will produce representative data and results which are as reliable as the methods specified in subpart 4.

### **7030.0080 Variance**

If, upon written application of the responsible person, the agency finds that by reason of exceptional circumstances strict conformity with any provisions of any noise rule would cause undue hardship, would be unreasonable, impractical, or not feasible under the circumstances, the agency may permit a variance upon the conditions and within the time limitations as it may prescribe for the prevention, control, or abatement of **noise** pollution in harmony with the intent of the state and any applicable federal laws.

### **7030.1000 Definition**

"Motor vehicle" means any self-propelled vehicle not operated exclusively upon railroad tracks and any vehicle propelled or drawn by a self-propelled vehicle and includes vehicles known as trackless trolleys which are propelled by electric power obtained from overhead trolley wires but not operated upon rails, except snowmobiles.

### **7030.1010 Prohibitions**

Subp. 1 Operation of vehicle.

No person shall operate either a motor vehicle or combination of vehicles of a type subject to registration pursuant to Minnesota Statutes, chapter 168 at any time or under any condition of grade, load, acceleration, or deceleration in such a manner as to exceed the noise limits contained herein for the category of motor vehicle and speed limits specified, when tested with a measurement procedure approved by the commissioner.

**Subp. 2 Sale of vehicle.**

No person shall sell or offer for sale a new motor vehicle or combination of vehicles of a type subject to registration pursuant to Minnesota Statutes, chapter 168 which when maintained according to the manufacturer's specifications would exceed the **noise** limits contained herein for the category of motor vehicle and speed limits specified, when tested with a measurement procedure approved by the commissioner.

**Subp. 3 Modification of vehicle.**

No person shall modify a motor vehicle or combination of vehicles of a type subject to registration pursuant to Minnesota Statutes, chapter 168 in a manner which will amplify or increase the noise emitted by the vehicle, above the **noise** limits contained herein for the category of motor vehicle and speed limits specified, when tested with a measurement procedure approved by the commissioner. No person shall operate a motor vehicle so modified.

**Subp. 4 Sale of parts.**

No person shall sell or offer for sale replacement or additional parts for a motor vehicle or combination of vehicles of a type subject to registration pursuant to Minnesota Statutes, chapter 168 which when installed in the vehicle will amplify or increase the **noise** emitted by the vehicle, above the noise limits contained herein for the category of motor vehicle and speed limits specified, when tested with a measurement procedure approved by the commissioner. No person shall operate a motor vehicle incorporating such parts.

**7030.1020 Scope**

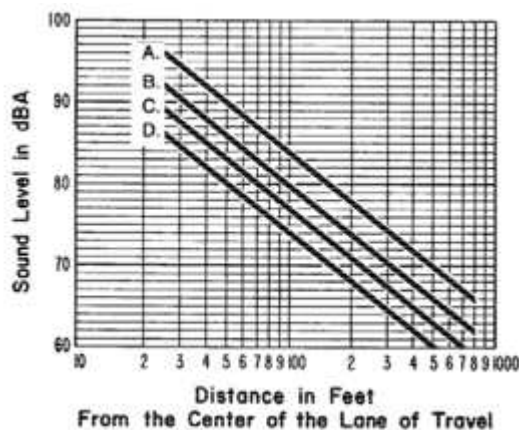
This chapter applies to the total **noise** from a vehicle or combination of vehicles of a type subject to registration pursuant to Minnesota Statutes, chapter 168 and shall not be construed as limiting or precluding the enforcement of any other provision of law relating to motor vehicle exhaust **noise**.

**7030.1030 Exceptions**

Vehicles under parts 7030.1050 and 7030.1060 are allowed to exceed the **noise** limits contained herein when performing acceleration maneuvers for safety purposes.

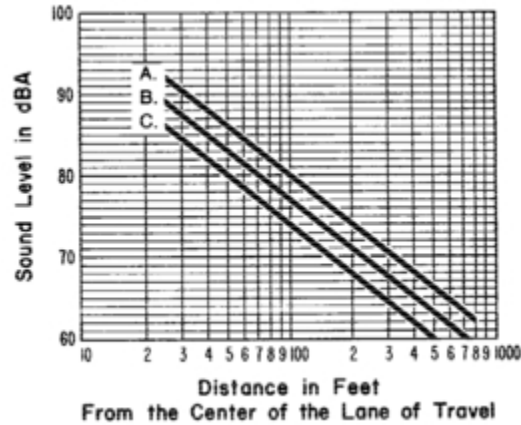
**7030.1040 Noise Limit for Vehicles over 10,000 Pounds**

Motor vehicle noise limits for vehicles with a manufacturer's gross vehicle weight rating of more than 10,000 pounds and any combination of vehicles towed by such motor vehicle.



- A. Speed limits greater than 35 mph.
- B. Speed limits equal to or less than 35 mph and stationary run-up tests (for vehicles with governed engines). For stationary run-up tests on all-paved surfaces, add 2 dBA.
- C. Speed limits equal to or less than 35 mph and stationary run-up tests (for vehicles with governed engines), for vehicles manufactured on or after January 1, 1978. For stationary run-up tests on all-paved surfaces, add 2 dBA.
- D. Speed limits equal to or less than 35 mph and stationary run-up tests (for vehicles with governed engines), for vehicles manufactured on or after January 1, 1982. For stationary run-up tests on all-paved surfaces, add 2 dBA.

**7030.1050 Motor Vehicle Noise Limits for Motorcycles**



- A. For vehicles manufactured before January 1, 1975.
- B. Speed limits greater than 35 mph for vehicles manufactured on or after January 1, 1975.
- C. Speed limits equal to or less than 35 mph for vehicles manufactured on or after January 1, 1975.

**7030.1060 Noise Limits for Other Vehicles.**

Motor vehicle noise limits for any other motor vehicle not included under parts 7030.1040 and 7030.1050 and any combination of vehicles towed by such motor vehicle.

