# ordinance no. 885

BE IT ORDAINED by the City Council of the City of Fairfield, Alabama as follows:

Section 1. <u>Purpose</u> - This ordinance is enacted to protect, preserve, and promote the health, safety, welfare, peace and quiet for the citizens of Fairfield, Alabama through the reduction, control and prevention of excessive noise. It is the intent of this ordinance to establish standards that will eliminate and reduce unnecessary and excessive vehicle and community noises which are physically harmful and otherwise detrimental to individuals and the community in the enjoyment of life, property and conduct of business.

Section 2. <u>Definitions</u> - All technical terminology used in this ordinance shall, for the purpose of this ordinance, have the meanings hereinafter ascribed to them in applicable publications of the American National Standards Institute (ANSI) or its successor bodies.

- (a) "Sound" energy that is transmitted by longitudinal pressure waves in air or other material and is the objective cause of the sensation of hearing.
- (b) "Noise" any sound which annoys or disturbs humans or which causes or tends to cause an adverse psychological or physiological effect on humans.
- (c) "Noise Disturbance" any exceedence of the maximum allowable sound level limits specified in this ordinance.
- (d) "Noise Sensitive Zone" any public area designated for the purpose of ensuring exceptional quiet. Noise sensitive activities include, but are not limited to, operations of schools, libraries open to the public, churches, hospitals and nursing homes.
- (e) "Sound Level" a measure of the level of a sound with a weighting network in the measuring chain.
- (f) "A Weighting Network" an electronic circuit which attempts to reproduce the frequency response characteristics of the human ear.
- (g) "dB(A)" means the composite abbreviation for A-weighted sound level in decibels.

- (h) "Ambient Noise" means background noise.
- (i) "Sound Level Meter" shall mean an apparatus or instrument including a microphone, amplifier, attenuator, output meter and frequency weighting networks for the measurement of sound levels. The sound level meter shall be of a design and have the characteristics of Type 1, 2 or \$2A or better instrument as established by the American National Standards Institute, publication \$1.4-1971 entitled Specification for Sound Level Meters.
  - (j) "Motor Vehicle" means any self-propelled vehicle.
- (k) "Motorcycle" means any motor vehicle having a seat or saddle for the use of the rider and designed to travel on not more than three wheels, but excluding a tractor.
- (1) "Motor Driven Cycle" means every motorcycle and every motor scooter with a motor which does not exceed five brake horsepower, including every bicycle with a motor attached.
- (m) "Vehicle" means any device in, upon or by which any person or property is or may be transported or drawn upon a highway, except devices moved by human power or used exclusively upon stationary rails or tracks.
- (n) "Forms and Records" shall mean the prescribed manner of documentation of all necessary information.
- (o) "Microphone Line" is the unmarked reference line running parallel to the vehicle path and passing through the microphone.
- (p) "Microphone Target Point" is the unmarked location on the center of the lane of travel that is closest to the microphone.
- (q) "Highways" shall mean the street, alleys and highways inside the police jurisdiction of the City of Fairfield.
- (r) "'A' Weighted Sound Pressure Level" means the sound pressure level as measured with the sound level meter using the "A" weighting network. The standard unit notation is dB(A).

- (s) "Construction" Shall mean any and all activity incidental to the erection, demolition, assembling, altering, installing or equipping of buildings, structures, roads or appurtenances thereto, including land clearing, grading, excavating and filling.
- (t) "Muffler" shall mean an apparatus consisting of a series of chambers or baffle plates designed for the purpose of transmitting gases while reducing sound emanating from such apparatus.
- (u) "Commercial Power Equipment" shall mean any equipment or device rated at more than five (5) horsepower and used for home or building repairs or grounds maintenance.
- (v) "Construction Equipment" shall mean any equipment or devices, such as but not limited to, pile drivers, power shovels, derricks, hoist tractors, loaders, rollers, concrete hauling motor vehicles, pavement breakers, bulldozers, crawler-tractors, rotary drills and augers, cranes, ditchers, trenchers, scrapers, wagons, pumps, compressors and pneumatic power equipment, or other mechanical apparatus operated by fuel or electric power in the construction, repair or demolition of any building, structure, land, street, alley, waterways or appurtenance thereto.
- (w) "Continuous Noise" shall mean a noise sound pressure level of constant value and intensity for a period of at least thirty (30) seconds.
- (x) "Decibel" shall mean a logarithmic unit of measure often used in measuring magnitudes of sound. The symbol is dB.
- (y) "Domestic Power Equipment" shall mean any equipment or device rated at five (5) horsepower or less and used for home or building repairs or grounds maintenance.
- (z) "Impulsive Noise" shall mean a noise usually less than one second in duration, characterized by brief excursions of sound pressure (acoustic impulses) which significantly exceeds the ambient environmental sound pressure.
- (aa) "Commercial Premise" shall for the purpose of this ordinance, mean any premise where offices, clinics, kennels, shopping and service establishments exist.

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- (bb) "Industrial Premise" shall mean any premise where manufacturing, processing or fabrication of goods or products takes place.
- (cc) "Property Line" shall mean that real or imaginary line and its vertical extension which (a) separates real property owned or controlled by any person from contiguous real property owned or controlled by another person and, (b) separates real property from the public premise.
- (dd) "Public Premise" shall mean all real property including appurtenances thereon, which is owned or controlled by any public governmental entity and shall include streets, alleys, parks and waterways.
- (ee) "Residential Premise" shall mean any premise where single or multiple dwelling units exist and shall include schools, churches, hospitals, nursing homes and similar institutional facilities.
- (ff) "Sound Pressure Level" shall mean twenty (20) times the logarithm to the base ten (10) of the ratio of the RMS pressure of a sound to the reference pressure of twenty micronewtons per square meter (20 x 10\4 Newtons/meter\2), and is expressed in decibels (dB).
- (gg) "Hard Test Site" means any test site having the ground surface covered with concrete, asphalt, packed dirt, gravel or similar reflective material for more than ½ the distance between the microphone target point and the microphone location point.
- (hh) "Soft Test Site" means any test site having the ground surface covered with grass, other ground cover, or similar absorptive material for  $\frac{1}{2}$  or more of the distance between the microphone target point and the microphone location point.
  - Section 3. Community Noise Level Standards
  - 3.1 Sound Levels by Receiving Land Use --
- (a) No person shall operate or cause to be operated on private property any source of sound in such a manner as to create a sound level which exceeds the limits set forth for the receiving land use category in Table I when measured at

or within the property boundary of the receiving land use.

Table I. Sound Levels by Receiving Land Use

Receiving Land-Use Category	Time	Sound Level Limit, dB(A)
Residential, public space, agricultural,	7 a.m 10 p.m.	55
institutional property or noise sensitive zone	10 p.m 7 a.m.	50
Commercial or Business	At all times	62
Industrial	At all times	70

- (b) Sound pressure levels in excess of those established for the receiving land-use category of the City, in times herewith listed, shall constitute prima facie evidence that such sound is a noise disturbance. Sound pressure levels shall be measured at the approximate location of the property line or the boundary of the public way, at a height of at least four (4) feet above the immediate surrounding surface, on a sound level meter of standard design and operated on the "A" weighting network.
- (c) When a noise source can be identified and its noise measured in more than one district, the sound pressure level limits of the most restrictive district shall apply.
- 3.1.1 The maximum permissible sound pressure level, as specified in Section 3.1 and Table I, shall not apply to sounds emitted from (a) any bell or chime from any building, clock, school or church; (b) any siren, whistle or bell lawfully used in emergency vehicles or any other alarm systems used in case of fire, collision, civil defense, police activity or imminent danger, provided however, that burglar alarms not terminating within fifteen (15) minutes after being activated shall be deemed a nuisance and unlawful; (c) any activities of a temporary duration which are permitted by law and for which a license or permit has been granted by the City, including but not limited to parades, sporting events, concerts and firework displays, (d) any construction equipment operated upon a residential, commercial, industrial or public premise during the time period between 7:00 a.m. and 10:00 p.m., provided however, that operation of construction equipment between the hours of

10:00 p.m. and 7:00 a.m. shall not exceed the maximum sound pressure levels as specified in Table 1 of Section 3.1 above; (e) any domestic power equipment operated upon any residential, commercial, industrial or public premise between 7:00 a.m. and 10:00 p.m., provided that such equipment does not exceed a sound pressure level of eighty (80) dB(A) when measured twenty-five (25) feet from the noise sources, and further provided that between the hours of 10:00 p.m. and 7:00 a.m. such equipment does not the maximum sound pressure levels as specified in Table 1 of Section 3.1 above; (f) any commercial power equipment operated upon any residential, commercial, industrial or public premise between 7:00 a.m. and 10:00 p.m., provided that such equipment does not exceed a sound pressure level of eighty-eight (88) dB(A) when measured twenty-five (25) feet from the noise source and further provided between 10:00 p.m. and 7:00 a.m. such equipment does not exceed the maximum sound pressure levels as specified in Table 1 of Section 3.1 above.

- 3.1.2 It shall be unlawful for any person to operate or for the owner to permit operation of any construction equipment, domestic power equipment, commercial power equipment, or power equipment on motor vehicles in excess of the maximum sound pressure levels established in Séctions 3.1 and 3.1.1.(d), (e) and (f) except when performing emergency work as defined in this ordinance.
- 3.2 Motor Vehicle No person shall operate upon any public street or highway, or be permitted to operate a vehicle at any time or under any conditions of roadway grade, load, acceleration or deceleration in such a manner as to generate a sound level or contain any device which generates a sound level in excess of the following limit for the category of motor vehicle and applicable speed at a distance of fifty feet from the center of the lane of travel under measurement procedures established herein.

	TABLE 2	SOUND LEVEL	LIMITS	
		Speed Limit Zone	Speed Limit	Zone
	TYPE OF VEHICLES	35 mph or Less	Over 35 mph	
(A)	Motorcycles and motor- driven cycles	82 dB(A)	86 dB(A)	
(B)	Vehicles with gross weight over 10,000 lbs	86 dB(A)	90 dB(A)	

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- (C) Vehicles with gross 80 dB(A) 84 dB(A) weight under 10,000 lbs.
- 3.2.1 Standing Motor Vehicles No person shall operate or permit the operation of any motor vehicle with a gross vehicle weight rating (GVWR) in excess of ten thousand (10,000) pounds, or any auxiliary equipment attached to such a vehicle, for a period longer than 10 minutes in any hour while the vehicle is stationary, for reasons other than traffic congestion, on a public right-of-way or public space within 150 feet (46 meters) of a residential area or designated noise sensitive zone, between the hours of 10:00 p.m. and 7:00 a.m. the following day.
- 3.2.2 Recreational Motorized Vehicles Operating Off Public Rights-of-Way No person shall operate or cause to be operated any recreational motorized vehicle off a public right-of-way in such a manner that the sound level emitted therefrom exceeds 55 dB(A) at a distance of 50 feet (15 meters) or from the path of the vehicle when operated on a public space or at or across the boundary of private property when operated on private property. This section shall apply to all recreational motorized vehicles, whether or not duly licensed and registered, including, but not limited to, commercial or noncommercial racing vehicles, motorcycles, gocarts, snowmobiles, amphibious craft, campers and dune buggies, but not including motorboats.

#### 3.3.1 Correction Factors

- (a) The rules in this subpart specify correction factors which are added to, or subtracted from the reading of the sound level generated by a motor vehicle, as displayed on a sound level measurement system, during the measurement of the motor vehicle's sound level emissions at a test site which is not a standard site.
- (b) The purpose of adding or subtracting a correction factor is to equate the sound level reading actually generated by the motor vehicle to the sound level reading it would have generated if the measurement had been made at a standard test site.

### 3.3.1.1 Distance Correction Factors

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 maximum

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observed sound level reading generated by the motor vehicle in accordance with Section 6.2 shall be corrected as specified in the following table:

If the distance between the microphone location point and the microphone target point is:

The value (dB(A) to be applied to the observed sound level reading is --

39 feet (10.7m) or r less than 39 feet (3	more	but ~ m)
.39 feet (11.9 m) or	more	hut-

-3

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) --

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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

## 3.3.1.2 Ground Surface Correction Factors

- (a) Highway operations When measurements are made in accordance with the rules in this section on a site which is "hard", a correction factor of 2 dB(A) shall be subtracted from the maximum observed sound level reading generated by the motor vehicle to determine whether the motor vehicle conforms to the sound level limits of Section 3.2. A "hard" site may be paved with concrete or asphalt. (As for example, a shopping center parking lot) or may owe its designation to firmly packed dirt without significant ground cover.
- (b) Stationary Tests When measurements are made in accordance with the rules in this section on a site which is "soft", a correction factor of 2 dB(A) shall be added to the numerical average of the recorded maximum observed sound level readings generated by the motor vehicle to determine whether the motor vehicle conforms to the sound level limits under Section 3. A "soft" site is a site with significant ground absorption of sound, as might be present at a measurement location in a field of tall grasses.

- 3.3.1.3 Application of Correction Factors
- (a) If two correction factors apply to a measurement, they are applied cumulatively.
- Section 4. Instrumentation Equipment used in making sound level measurements shall meet the following requirements:
- (a) Sound Level Meter Sound level meters shall be of types 1, 2 or S2A, meeting the requirements of the American National Standards Institute, Incorporated, or its successor, bodies.
- (b) Windscreen A properly installed windscreen recommended by the manufacturer of the sound level meter shall be used.
- (c) Calibration Each sound measuring instrument shall regularly calibrated.

### Section 5. Equipment Operators

- (a) Training Persons conducting sound level measurements under the provisions of this act shall be trained by a person or persons whose qualifications have been approved by the Chief of Police of the City of Fairfield, Alabama. This training shall include, but not limited to, techniques of sound measurements and operation of sound measuring instruments.
- (b) Technician Location The technician making direct readings of the meter shall be positioned in relation to the microphone in accordance with the instrument manufacturer's instructions. Where the instruction manual is vague or does not include adequate information, a specific recommendation shall be obtained from the manufacturer.

### Section 6. Measurement Procedure

6.1 Community Noise Level Measurements (Exclusive of Vehicle Measurements)

Meter Operation - The sound level meter shall be operated in accordance with the instrument manufacturer's instructions; and as follows:

(a) Microphone Orientation - The microphone shall be oriented perpendicular to the property boundary nearest the

- allegedly offensive noise source, unless the instrument manufacturer's instructions specifically indicate otherwise.
- (b) Meter Setting The meter shall be set for the A-weighted network and slow response.(c) Calibration An external calibration The set of the A-weighted network and slow response.
- (c) Calibration An external calibration check and battery check shall be made weekly.
- (d) Meter Readings The recorded reading shall be the highest sound level obtained with the allegedly offensive noise source in operation, disregarding unrelated peaks due to extraneous ambient noises.
- (e) Ambient Conditions Measurements shall be made only when the 'A-weighted ambient sound level, including wind effects and all sources other than the noise source being measured, is at least 10 dB(A) lower than the sound level of the noise source being measured.
- 6.2 Location and Operation of Sound Level Measurement System; Highway Operations
- (a) The microphone of a sound level measurement system that conforms to the rules in Section 4 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  $3\frac{1}{2}$  feet (1.1 m) and not more than  $4\frac{1}{2}$  feet (1.4 m) above the surface on which the microphone stands.
- (b) When the sound level measurement system is hand-held, 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.
- (c) 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.

- (d) The sound level measurement system shall be set to the A-weighting network and "slow" meter response mode.
- (e) Calibration Check. An external calibration check and battery check shall be made weekly.
  - 6.2.1 Measurement Procedure; Highway Operations
- (a) In accordance with the rules in 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, 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 the rules in Section 3.3.3. 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.
  - Section 7. Procedure for Reporting All law enforcement agencies conducting sound level meter readings shall report on forms prescribed by the Chief of Police of the City of Fairfield, Alabama.
    - Section 8. Restriction for Maintenance

No person shall fail to maintain the exhaust system of any vehicle operated upon a public street or highway in such a manner that it would emit sound levels in excess of those provided for in this ordinance for public street or highway use.

Section 9. Application Exceptions - This ordinance shall apply to the operation of all motor vehicles, both upon the public streets and highways within the City, and on other public or private places, and it shall be unlawful for any person to operate a motor vehicle either upon or off the public streets without complying with this ordinance, except however, the following vehicles are exempt from the operation of this ordinance.

(A) Any motor vehicle engaged in a professional or amateur sanctioned competitive sports event on public or

private property where such events are otherwise a lawful and permitted use of the property.

(B) Agricultural equipment either on job site or traveling on highways.

Section 10. Undue Hardship - Applications for a permit for relief from the sound pressure levels designated in this ordinance, or regulations designated in this ordinance, except for motor vehicles operated on a public street or highway, may, on the basis of undue hardship, be made to the Chief of Police. Any permit granted by the Chief of Police shall contain all conditions upon which said permit has been granted and shall specify a reasonable time that the permit shall be effective. The Chief of Police may grant the relief as applied for only if he finds:

- (1) That additional time is reasonably necessary for the applicant to alter or modify his activity or operation to comply with this ordinance; or
- (2) That the activity, operation, or noise source will be of temporary duration, and cannot be done in a manner that would comply with this ordinance; and
- (3) That no other reasonable alternative is available to the applicants; and
- (4) The Chief of Police may prescribe any reasonable conditions or requirements he deems necessary to minimize adverse effects upon a community or the surrounding neighborhood.

Section 11. Method of Enforcement of the Ordinance

- (a) The Chief of Police, and officers under his supervision, shall be the enforcement officers for this ordinance. Violations shall subject persons responsible to citation to appear in Municipal Court, or other lawful enforcement actions.
- (b) Violation of this ordinance in which the noise source is not self-propelled, or if self-propelled, not customarily used or designed for transportation upon a public right-of-way, shall be cause for the issuance of a citation to appear in Municipal Court to answer charged for violation stated therein; provided, however, that in lieu of citation to appear enforcement personnel may issue a 24-hour notice,

or other reasonable amount of time not to exceed five days, signed by the Chief of Police or his duly authorized representative, in writing, which may be served personally or by certified mail, to the last known address of the person to whom addressed, with return receipt requested, directed to the owner, occupant, person or persons in charge of or in control of the machine, device, building, or other premises to abate said violation of this ordinance. Failure to comply with the order so issued and served shall constitute a violation of this ordinance.

Section 12. Penalties - Any person violating this ordinance shall be assessed a fine not to exceed One Hundred Dollars, provided that any person violating this ordinance on more than three occasions in a calendar year may be assessed a fine not to exceed Five Hundred Dollars.

Section 13. Severability - If any section, clause, or provision of this ordinance be declared unconstitutional or held invalid, it shall not affect any other section, clause, or provisions thereof, but the same shall remain in full force and effect.

Section 15. The Chief of Police shall during the year succeeding the effective date of this ordinance, make a written report to the Council concerning the status of equipment acquisition and personnel training required under the terms of this ordinance, and also concerning enforcement activity, and thereafter reports of enforcement activity shall be included in the department's regular monthly report concerning same.

ADOPTED this the 7th day of September, 1993.

FAIRFIELD CITY COUNCIL

PRESIDENT
APPROVED this the 7th day of September, 1993.

MAYOR