

# ARTICLE 16: MANUFACTURING USE PERFORMANCE STANDARDS

## Section

- 16:1      Vibration
- 16:2      Noises
- 16:3      Air Pollution
- 16:4      Odors
- 16:5      Toxic Matters and Hazardous Waste
- 16:6      Fire and Explosive Hazards
- 16:7      Radioactive Materials
- 16:8      Light and Glare
- 16:9      Electromagnetic Interference
- 16:10     Smoke and Particulate Matter
- 16:11     Fumes and Vapors
- 16:12     Heat, Cold, Dampness or Movement of Air
- 16:13     Compliance Guarantee

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The following performance standards are designed to ensure that all permitted manufacturing uses produce no injurious or obnoxious conditions related to the operation of such uses beyond the premises.

### **§ 16:1 Vibration.**

No vibration shall be produced which is transmitted through the ground and is discernible without the aid of instruments at any point beyond the lot line; nor shall any vibration produced exceed the following particle velocity levels, measured with a vibration monitor in inches per second at the nearest:

- 1. Residential property line: 0.02
- 2. Non-residential property line: 0.10

Vibration emanating from construction activities between 7:00 a.m. and 9:00 p.m. shall be exempt from these regulations.

**§ 16:2 Noises.**

All noise shall be muffled so as not to be objectionable due to intermittence, beat frequency or shrillness. In no event shall the sound pressure level of noise radiated continuously from a facility exceed at the lot line the values given in Table 3 in any octave band or frequency. Sound pressure level shall be measured with a Sound Meter and an Octave Band Analyzer that conforms to specifications published by the American Standards Association. (See Table 3)

TABLE 3

Maximum permissible sound pressure levels at the lot line for noise radiated continuously from a facility between the hours of 9 p.m. and 7 a.m.

Frequency Band (In Cycles Per Second)	Sound Pressure Levels (In Decibels)	
	At Non-Residential Lot Line	At Residential Lot Line
20 - 75	79	65
75 - 150	60	50
150 - 300	56	43
300 - 600	51	38
600 - 1,200	42	33
1,200 - 2,400	40	30
2,400 - 4,800	38	28
4,800 - 10,000	35	20

**Day Time Schedule**

Maximum permissible sound pressure levels at the lot line for noise radiated from a facility between the hours of 7 a.m. and 9 p.m. shall not exceed the limits of the preceding table except as specified and corrected below.

<u>Type of Operation in Character of Noise</u>	<u>Correction in Decibel*</u>
Daytime operation only	Plus 5
Noise source operates less than 20% of any one-hour period	Plus 5

Noise source operates less than 5% of any one-hour period	Plus 10
Noise source operates less than 1& of any one-hour period	Plus 15
Noise of impulsive character (hammering, etc.)	Minus 5
Noise of periodic character (hum, speech, etc.)	Minus 5

\* Apply to the preceding table one of these corrections only.

Noises emanating from construction activities between 7:00 a.m. and 9:00 p.m. shall be exempt from these requirements.

**§ 16:3 Air Pollution.**

The emission of visible smoke, dust, dirt, fly ash, particulate matter from any pipes, vents, or other openings, or from any other source into the air, shall comply with the regulations of the South Carolina Department of Health and Environmental Control.

**§ 16:4 Odors.**

There shall be no emission of odorous gases or other odorous matter in such quantities as to be offensive at the property line. Any process, which may involve the creation or emission of any such odor, shall be provided with both a primary and a secondary safeguard system so that control may be maintained in the event of failure of the primary safeguard system.

**Odorous Matter:** Solid, liquid or gaseous material which produces an olfactory response in a human being.

**Odor Threshold Concentration:** The lowest concentration of odorous matter which will produce an olfactory response in a human being. Odor thresholds shall be determined in accordance with American Society for Testing and Materials Test Method DI 391-57 (1967).

**Emission of Odorous Matter:** Odorous matter released from any operation or activity shall not exceed the odor threshold concentration across a protected property line measured at ground or habitable elevation.

**§ 16:5 Toxic Matters and Hazardous Waste**

**Toxic Matter:** Materials or substances which, either singly or in combination with other materials or substances, through synergistic action, poses a threat to the health of human beings, either acutely or chronically.

**Hazardous Waste:** Materials or substances which are not biodegradable and which, due to such fact, pose a threat to living organisms through chemical contamination of the ecosystem.

**Determination of Material Status:** The determination that a material or substance is either toxic or poses a threat as a hazardous waste shall be based upon the listing published by the Environmental Protection Agency under the Toxic Substances Control Act of 1976, as amended, and the rules and regulations promulgated for identification of such by SCDHEC.

**Compliance with Existing Statues:** Any facility proposing to locate within the jurisdiction of the Ordinance which would utilize toxic matter or produce hazardous waste in the process of manufacturing, fabricating, assembling, packaging or any related activity, shall provide to the Zoning Administrator for Jasper County a certificate from either the Bureau of Solid and Industrial Waste Management for the Compliance and Enforcement Division of the NPDES Permits Administration of DHEC, or both, indicating compliance with the rules and regulations administered by those agencies. Only until such certification is received from SCDHEC shall the facility be permitted for occupancy.

Nothing contained herein shall be intended to pre-empt or abrogate the requirement for a user of toxic matter or generator of hazardous waste to adhere to the administrative and procedural requirements of state or federal agencies with regard to environmental protection.

**Special Requirements:** Notwithstanding the requirements of state and federal agencies charged with the administration of the rules and regulations governing the operation of facilities utilizing toxic matter or generating or storing hazardous waste, any facility involved in such identified material shall provide an on-site containment area for the material so that a leak or spill is contained entirely on the facility's property and thus prevented from entering the surface or subsurface drainage system, man-made or natural, within the County. The review of the containment structure as to its design and acceptability shall remain with the Zoning administrator who may rely upon the expertise provided by the County Building Official or any other agency as necessary to ascertain satisfaction that the proposed structure will provide compliance with the intent of this section.

**List of Materials:** Materials and substances considered as either toxic matter or hazardous waste shall be those contained within the listing published by the Environmental Protection Agency, as amended, under the provision of the Toxic Substances Control Act of 1976. A further listing of such materials is found in Regulation No. 61-79.1 of the Rules and Regulations for the State of South Carolina, appended to the 1976 Code of Laws, as amended.

**§ 16:6 Fire and Explosive Hazards.**

Activities involving the storage, utilization, or manufacture of materials or products which are considered detonable (non-atomic), flammable, or ignitable shall be subject to the rules and regulations of the South Carolina Department of Health and Environmental Control (SCDHEC) for such.

**Particular Requirements for Jasper County.**

Vehicular fuels shall be stored in accordance with the following storage capacity limits:

	Adjacent Grandfathered Residential Use or Adjacent Restricted Development District	Adjacent Intense Development District
Underground Tank	80,000 gallons/acre	Unlimited
Above Ground Tank	40,000 gallons/acre	150,000 gallons/acre

Where above ground storage is proposed in excess of 100,000 gallons, a minimum distance of five hundred (500) feet shall be required from such storage to any property line.

**§ 16:7 Radioactive Materials.**

The manufacture, storage, or utilization of radioactive materials shall be in accordance with the requirements of the South Carolina Department of Health and Environmental Control. Reference is made to Regulations 61-63 and 61-83 appended to the South Carolina Code of Laws, 1976, as amended.

**§ 16:8 Light and Glare**

**Foot Candle:** A unit of illumination. Technically, the illumination at all points one foot distant from a uniform point source of one candlepower.

**Glare:** The disturbing quality of direct illumination which, although not necessarily providing a measurable amount of light from a given vantage point, nonetheless is an attractive nuisance to the eye to the point of causing discomfort when viewed.

**Limitation of Illumination:** In all districts, any operation of activity producing light from a non-mobile source (cars, trucks and other vehicles traveling on highways, etc, are exempt) shall not cause illumination in excess of one foot candle when measured in a Restricted development district of across the protected property line of an adjacent grandfathered residential use.

**Limitation of Glare:** In all districts, any activity producing light from a non-mobile source (cars, trucks, and other vehicles and crafts are exempt from these provisions) shall be so constructed so that glare is not directed into a Restricted development district, across the protected property line of an adjacent grandfathered residential use, or into traffic lanes of public roads. Pole mounted lighting fixtures are encouraged to be located along the perimeter of the area to be illuminated so that the direction of the light may be inward away from the property lines. Certain fixtures must be shielded to mitigate the effects of glare.

**Exterior Illumination:** All outdoor light fixtures shall be fully shielded and installed in such a way that no light is emitted above a horizontal plane running through the lowest part of the fixture. Use of high pressure sodium lighting is encouraged but not required. The pattern of light pooling from each light source shall be carefully considered to avoid throwing light onto adjacent properties. Light sources visible in residential or medical areas shall not exceed 0.1-foot candles. Light sources visible in other areas shall not exceed 0.5-foot candles. Measurements shall be in a vented plane at the property line.

**§16:9 Electromagnetic Interference.**

In all districts, no operations or activities shall be conducted that cause electrical disturbances to be transmitted across protected property lines.

**§16:10 Smoke and Particulate Matter.**

Activities which produce smoke or particulate matter shall abide by the regulations of the South Carolina Department of Health and Environmental Control under authority granted by the Pollution Control Act. (Reference Regulation 61-62 appended to the South Carolina Code of Laws of 1976, as amended).

**§ 16:11 Fumes and Vapors.**

There shall be no emission of any fumes or vapors of a noxious, toxic or corrosive nature, which can cause damage or irritation to health, animals, vegetation, or to any form of property.

**§ 16:12 Heat, Cold, Dampness or Movement of Air.**

Activities which could produce any adverse effect on the temperature, motion or humidity of the atmosphere beyond the lot line shall not be permitted.

**§ 16:13 Compliance Guarantee.**

The applicant of a permit for a manufacturing or processing plant which would produce any of the above "objectionable elements" shall acknowledge in writing his understanding of the performance standards applicable to the proposed use and shall submit with the permit application, an agreement to conform with such standards at all

times. Any violation of the agreement shall constitute a violation of this Ordinance and shall be treated accordingly. Enforcement of this agreement shall be precipitated by complaint from any person allegedly aggravated by failure of the industrial use to comply with the provisions of this section. Where there is a potential problem in meeting any one of these performance criteria in this Section, the applicant shall be required request a variance before the Board of Zoning Appeals in accordance with the provisions of Article 3.