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## ARTICLE XV

### PERFORMANCE STANDARDS FOR INDUSTRIAL ZONES

**SECTION 15.0 APPLICATION OF PERFORMANCE STANDARDS:** After the effective date of this ordinance, any use established or changed to, and any building, structure, or tract of land, developed, constructed, or used for any permitted or permissible principal or accessory use in the IP Zone, shall comply with all of the performance standards herein set forth for the district involved. If any existing use, or building, or other structure is extended, enlarged, or reconstructed, the performance standards for the district involved shall apply with respect to such extended, enlarged, or reconstructed portion, or portions, of such use, or building, or other structure.

**SECTION 15.1 TIME SCHEDULE FOR COMPLIANCE OF PERFORMANCE STANDARDS:** Except as otherwise specified herein, compliance with the provisions of this article of the ordinance shall be according to the following time schedule:

- A. All new installations shall comply as of going into operation.
- B. All existing installations not in compliance, as of the effective date of this ordinance, shall be in compliance within one (1) calendar year of the effective date of this ordinance, unless the owner or person responsible for the operation of the installation shall have submitted to the city, in a form and manner satisfactory to the city, a program and schedule for achieving compliance, such program and schedule to contain a date on or before which full compliance will be attained and such other information as the city may require. If approved by the city, such date will be the date on which the person shall comply.

The city may require persons submitting such program to submit subsequent periodic reports on progress in achieving compliance.

**SECTION 15.2 EFFECTS OF CONCURRENT OPERATIONS:** The sum total of the effects of concurrent operations on two (2) or more lots should not be greater or more offensive to the senses than the standards contained herein. Compliance with the provision of these performance standards by single or mutual changes in operational levels, scheduling of operations, and other adjustments is permitted.

- A. **BUILDING ENCLOSURES:** Every use permitted in the IP industrial zone shall be operated in its entirety within a completely enclosed building. In the IP industrial zone, permitted uses shall be operated either within a completely enclosed building or within an area screened at the periphery of the area, according to Section 9.17 and Article XIV of this ordinance.

- B. LANDSCAPING: In all industrial districts, all required yards shall either be open landscaped and grassed areas or be left in a natural state, if acceptable to the city. If said area is to be landscaped, it shall be landscaped attractively with lawn, trees, shrubs, etc., according to the initially submitted plans which were first approved of for the development of such tract as a permitted use.

In areas to be used for off-street parking, the parking arrangement and surfacing must likewise have been approved of for the development of such tract as a permitted use. Any landscaped areas shall be properly maintained thereafter in a sightly and well kept condition. Parking areas shall likewise be maintained in good condition. Any areas left in a natural state shall be properly maintained in a well kept condition.

- C. NOISE: For the purpose of measuring the intensity and frequencies of a sound, a sound level meter and an octave band analyzer shall be employed that conform to specifications published by the American National Standards Institute (specifications for Sound Level Meters S1.4 - 1971, and Specifications for Octave, Half Octave, and Third Octave Band Filter Sets S1.11 - 1966, American National Standards Institute, 1430 Broadway, New York, New York, 10018, or the latest edition of such standards, shall be used). In the enforcement of the regulation, noises produced by the operation of motor vehicles or other transportation facilities shall not be included in determining the maximum permitted decibel level. In the IP Zone, the sound pressure of noise radiated continuously from any activity shall not exceed the value given in Tables 15-1 and 15-2 of this section, in any octave band frequency, at any point on or beyond any lot line. If the noise is not smooth and continuous, one or more of the corrections in Table 15-2 of this section shall be added or subtracted from each of the decibel levels given in Table 15-1 of this ordinance.

In the I-1 Zone, the sound pressure of noise radiated from any activity shall not exceed the values given in Table 15-3 of this section in any octave band frequency at any point on or beyond any lot line. If the IP or I-1 Zones adjoins a residential zone, the maximum sound pressure level at any point on the district boundary shall be reduced by six (6) decibels from the maximum listed in Table 15-3.

In the I-2, I-3, I-4, and I-5 Zones, the sound pressure of noise radiated from any activity shall not exceed the value given in Table 15-3 of this section in any octave band frequency at any point on or beyond the nearest district boundary. If an I-2 Zone adjoins a residential district, the maximum sound pressure shall be reduced by six (6) decibels from the maximum listed in Table 15-3 of this section.

In all districts, industrial noise shall be muffled so as not to become objectionable due to intermittence, beat, frequency, or shrillness.

- D. ODOROUS MATTER: No emission of odorous matter shall be allowed in excess of ambient air quality standards, as set forth by regulations adopted by the Kentucky Department for Natural Resources and Environmental Protection, Division of Air Pollution, Cincinnati Air Quality Region.
- E. HUMIDITY, HEAT OR GLARE: In the IP or I-1 districts, any activity producing humidity, in the form of steam or moist air, or producing heat or glare, shall be carried on in such a manner that the steam, humidity, heat, or glare is not perceptible at any lot line. In the I-2, I-3, I-4, and I-5 districts, any activity producing heat or glare shall be carried on in such a manner that the steam, humidity, heat, or glare is not perceptible at or beyond any residential or commercial district boundary. Detailed plans for the elimination of humidity, heat, or glare may be required before the issuance of a building permit.
- F. EXTERIOR LIGHTING: Any lights used for exterior illumination, except for overhead street lighting and warning, or traffic signals shall direct light away from the adjoining zones in the IP, I-1, and I-2 districts.
- G. VIBRATION: Vibrations shall be measured at the lot line in the IP Zone. No vibrations are permitted which are discernible to the human sense of feeling without instruments at the property lines of the subject premises.
- H. EMISSIONS AND OPEN BURNING: No emission of particulate matter, sulfur compound, carbon monoxide, hydrocarbon, nitrogen oxide, and open burning shall be allowed in excess of regulations adopted by the Kentucky Department for Natural Resources and Environmental Protection, Division of Air Pollution, Cincinnati Air Quality Region.
- I. RADIATION: In the IP Zone, all sources of ionizing radiation shall be registered or licensed by the Kentucky State Department of Health and operated in accordance with their regulations.
- J. ELECTRICAL RADIATION: In the IP Zone, any electrical radiation shall not adversely affect, at any point on or beyond the lot line, any operation or equipment, other than those of the creation of the radiation. Avoidance of adverse effects from electrical radiation by appropriate single or mutual scheduling of operations is permitted.

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- K. STORAGE: In the IP Zone, no material, product, or supplies shall be stored or permitted to remain on any part of the property outside the buildings constructed thereon.
  - L. FIRE AND EXPLOSIVE HAZARDS: In the IP Zone, the storage, utilization, or manufacture of flammable liquids, or materials which produce flammable or explosive vapors or gases, shall be permitted, provided that storage, handling, and use shall be in accordance with Standards of American Insurance Association for Storage, Handling, and Use of Flammable Liquids, "American Insurance Association", Pamphlet No. 30, June 1959, or any subsequent revision or amendment thereto.
  - M. WASTE: Within the IP Zone, no waste material or refuse shall be dumped upon, or permitted to remain upon, any part of the part of the property outside of the buildings constructed thereon. All sewage and industrial waste shall be treated and disposed of in such a manner so as to comply with the standards of the appropriate local authority and in accordance with the Solid Waste Regulations of the Kentucky Department of Natural Resources and Environmental Protection. All plans for waste disposal facilities shall be required before the issuance of any building permit.
  - N. MINING AND RECLAMATION: All methods of operation, construction of roads, backfilling, grading, blasting, water impoundments, treatment facilities, and reclamation must be in conformance with the regulations adopted by the Department for Natural Resources and Environmental Protection, Division of Reclamation. Any excavation or processing operations shall be subject to the regulations of the Kentucky Water Pollution Control Commission.
  - O. BLASTING AND EXPLOSIVES: All blasting and the use of explosives must be conducted in accordance with the regulations set forth by the Department of Mines and Minerals, Division of Explosives and Blasting (pursuant to the authority of KRS 351.310 to 351.990) and in accordance with the Standards of Safety for Explosives, for the Commonwealth of Kentucky, prepared by the Department of Public Safety, Division of Fire Prevention (pursuant to the authority of KRS 227.300).

TABLE 15-1

MAXIMUM PERMISSIBLE SOUND PRESSURE LEVEL AT  
SPECIFIED POINTS OF MEASUREMENT FOR NOISE RADIATED  
CONTINUOUSLY FROM A FACILITY

OCTAVE BAND (CYCLES PER SECOND)	SOUND PRESSURE LEVEL (DECIBELS*)
20 - 75	69
75 - 150	54
150 - 300	47
300 - 600	41
600 - 1,200	37
1,200 - 2,400	34
2,400 - 4,800	31
4,800 - 10,000	28
10,000 - 20,000	26**
20,000 - 30,000	25**
30,000 - 40,000	24**
40,000 - 50,000	23**

\* According to the following formula, Sound Pressure Level in Decibels equals  $10 \log \frac{P_1}{P_2}$  where  $P_2$  equals 0.0002 dynes/cm<sup>2</sup>

\*\* To avoid possible interference with animal experiments

TABLE 15-2

CORRECTION IN MAXIMUM PERMITTED SOUND PRESSURE LEVEL IN DECIBELS  
TO TABLE 15-3

TYPE OF OPERATION OF CHARACTER OF NOISE	CORRECTION IN DECIBELS
Noise source operates less than twenty (20) percent of any one hour period	plus 5*
Noise source operates less than five (5) percent of any one hour period	plus 10*
Noise source operates less than one (1) percent of any one hour period	plus 15*
Noise of impulse character (hammering, etc.)	minus 5
Noise of periodic character (hum, screech, etc.)	minus 5

\* Apply one of these corrections only

TABLE 15-3

## MAXIMUM PERMITTED SOUND PRESSURE LEVEL IN DECIBELS

OCTAVE BAND (CYCLES PER SECOND)	SOUND PRESSURE LEVEL (DECIBELS*)
0 - 74	79
75 - 1149	74
150 - 299	66
300 - 599	59
600 - 1,199	53
1,200 - 2,399	47
2,400 - 4,799	41
4,800 and over	39

\* According to the following formula, Sound Pressure Level in Decibels equals  $10 \log \left( \frac{P_1}{P_2} \right)$  where  $P_2$  equals  $0.0002 \text{ dynes/cm}^2$