

REGULATION 3.04 Ambient Air Quality Standards

Air Pollution Control District of Jefferson County Jefferson County, Kentucky

Relates To: KRS Chapter 77 Air Pollution Control

Pursuant To: KRS Chapter 77 Air Pollution Control

Necessity And Function: KRS 77.180 provides that the Air Pollution Control Board may make and enforce all needful orders, rules, and regulations necessary or proper to accomplish the purposes of KRS Chapter 77. This regulation establishes ambient air quality standards for Jefferson County.

SECTION 1 Primary Standards

The primary ambient air quality standards for sulfur oxides, particulate matter, carbon monoxide, total nonmethane hydrocarbons, lead, nitrogen dioxide, photochemical oxidants, hydrogen fluoride, and odors measured by reference methods specified by the Board, or by equivalent methods, are:

- 1.1 Sulfur Oxides (sulfur dioxide):
 - 1.1.1 80 micrograms per cubic meter (.03 ppm) - annual arithmetic mean.
 - 1.1.2 365 micrograms per cubic meter (0.14 ppm) - maximum 24-hour average not to be exceeded more than once per year.
- 1.2 Particulate Matter PM₁₀:
 - 1.2.1 50 micrograms per cubic meter - annual arithmetic mean as determined in accordance with 40 CFR Part 50 Appendix K.
 - 1.2.2 150 micrograms per cubic meter - maximum 24-hour average not to be exceeded more than once per year as determined in accordance with 40 CFR Part 50 Appendix K.
- 1.3 Carbon Monoxide:
 - 1.3.1 10 milligrams per cubic meter (9 ppm) - maximum 8-hour average not to be exceeded more than once per year.
 - 1.3.2 40 milligrams per cubic meter (35 ppm) - maximum 1-hour average not to be exceeded more than once per year.
- 1.4 Photochemical Oxidants (measured as O₃ and corrected for interferences due to nitrogen oxides and sulfur dioxide):
 - 1.4.1 235 micrograms per cubic meter (0.12 ppm) - The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm (235 ug/m³) is equal to or less than 1, and determined by 40 CFR Part 50 Appendix H.
- 1.5 Hydrocarbons (measured as total hydrocarbons and corrected for methane, to be used as a guide in devising plans to achieve photochemical oxidant standards):
 - 1.5.1 160 micrograms per cubic meter (0.24 ppm) - maximum 3-hour average (6:00 a.m. to 9:00 a.m.) not to be exceeded more than once per year.
- 1.6 Nitrogen Dioxide:
 - 1.6.1 100 micrograms per cubic meter (0.05 ppm) - annual arithmetic mean.
- 1.7 Gaseous Fluorides (expressed as HF):
 - 1.7.1 400 micrograms per cubic meter (0.05 ppm) - annual arithmetic mean.

- 1.8 Lead:
 - 1.8.1 Not to exceed 1.5 micrograms per cubic meter, calendar quarter average.
- 1.9 Odors:

Any ambient air sample of at least 50 ml which, undiluted, is established by a documented investigation or measurement to be offensive, foul, unpleasant, or repulsive.

SECTION 2 Secondary Standards

The secondary ambient air quality standards for sulfur oxides, particulate matter, carbon monoxide, total nonmethane hydrocarbons, lead, nitrogen dioxide, hydrogen sulfide, photochemical oxidants, hydrogen fluoride, total fluorides, and odors measured by reference methods specified by the Board, or by equivalent methods are:

- 2.1 Sulfur Oxides (sulfur dioxide):
 - 2.1.1 1300 micrograms per cubic meter (0.50 ppm) maximum 3-hour average not to be exceeded more than once per year.
- 2.2 Particulate Matter PM₁₀:
 - 2.2.1 150 micrograms per cubic meter maximum 24-hour average not to be exceeded more than once per year as determined in accordance with 40 CFR Part 50 Appendix K.
 - 2.2.2 50 micrograms per cubic meter annual arithmetic mean, shall be used as a guide in assessing implementation plans to achieve the 24-hour primary standard as determined in accordance with 40 CFR Part 50 Appendix K.
- 2.3 Carbon Monoxide
Same as primary standards.
- 2.4 Photochemical Oxidants:
Same as primary standard.
- 2.5 Hydrocarbons:
Same as primary standard.
- 2.6 Nitrogen Dioxide:
 - 2.6.1 254 micrograms per cubic meter (0.135 ppm) maximum 24-hour average not to be exceeded more than once per year.
 - 2.6.2 1,020 micrograms per cubic meter (0.54 ppm) maximum 1-hour average not to be exceeded more than once per year.
 - 2.6.3 100 micrograms per cubic meter (0.05 ppm) annual arithmetic mean.
- 2.7 Gaseous Fluorides (expressed as HF):
 - 2.7.1 0.50 micrograms per cubic meter (.60 ppb) - maximum 1-month average not to be exceeded more than once per year.
 - 2.7.2 0.80 micrograms per cubic meter (0.97 ppb) - maximum 1-week average not to be exceeded more than once per year.
 - 2.7.3 2.86 micrograms per cubic meter (3.5 ppb) - maximum 24-hour average not to be exceeded more than once per year.
 - 2.7.4 3.68 micrograms per cubic meter (4.5 ppb) - maximum 12-hour average not to be exceeded more than once per year.
- 2.8 Hydrogen Sulfide:
 - 2.8.1 14 micrograms per cubic meter (0.01 ppm) maximum 1-hour average not to be exceeded more than once per year.
- 2.9 Total Fluorides:
Dry weight basis (as fluoride ion) in and on forage for consumption by grazing ruminants.
 - 2.9.1 Not to exceed 40 ppm (w/w) - average concentration of monthly samples over growing season (not to exceed 6 consecutive months).

2.9.2 Not to exceed 60 ppm (w/w) - 2-month average.

2.9.3 Not to exceed 80 ppm (w/w) - 1-month average.

2.10 Lead:
Same as primary standard.

2.11 Odors:
Same as primary standard.

Adopted v1/4-19-72; effective 4-19-72; amended v2/9-1-76, v3/6-13-79, v4/2-16-83, v5/4-20-88.

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