

City of Memphis Section 16-49. Ambient Air Quality Standards
(Shelby County Section 3-6. Ambient Air Quality Standards)

For the purpose of enforcement of the ambient air quality standards, Chapter 1200-3-3 of the Tennessee Air Pollution Control Regulations, as effective on January 1, 1998, is hereby adopted by reference as a portion of this Code. Such regulations and/or all such additions, deletions, changes and amendments as may subsequently be made shall become a part of this code and shall have the same effect as if set out in full herein.

(City of Memphis Ord. No. 4320, effective 6-7-95; Shelby County Ord. No. 159, effective 5-14-95. Amended by City of Memphis Ord. No. 4636, effective 1-7-99; amended by Shelby County Ord. No. 203, effective 9-18-98. Pursuant to T.C.A. 68-201-115.)

RULES
OF THE
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
BUREAU OF ENVIRONMENT
DIVISION OF AIR POLLUTION CONTROL

CHAPTER 1200-3-3

AMBIENT AIR QUALITY STANDARDS

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Primary ambient air quality standards define levels of air quality believed adequate, with an appropriate margin of safety, to protect public health.

Authority T.C.A. Section 68-201-105 and 4-5-202. Administrative History: Original rule filed January 10, 1977; effective February 9, 1977.

Secondary Ambient air quality standards define levels of air quality believed adequate, with an appropriate margin of safety, to protect the public welfare from any known anticipated adverse effects of the pollutant.

Authority T.C.A. Section 68-201-105 and 4-5-202. Administrative History: Original rule filed January 10, 1977; effective February 9, 1977.

(1) Ambient air quality standards as given in this rule are applicable throughout Tennessee.

(a) TENNESSEE AMBIENT AIR QUALITY STANDARDS for Total Suspended Particulates (TSP), PM₁₀, Sulfur Dioxide, Carbon Monoxide, Ozone, Nitrogen Dioxide, and Lead.

TABLE I

μg/m³ - Micrograms per cubic meter
AAM - Annual Arithmetic Mean

Contaminants Avg	Primary Std. <u>Concentration</u>		Avg <u>Interval</u>	Secondary Std. <u>Concentration</u>	
	<u>μg/m³</u>	<u>ppm by vol</u>		<u>μg/m³</u>	<u>ppm by vol</u>
1. Total Suspended Particulates 24 hr (TSP) (NOTE 1)		--		150	--
2. PM ₁₀ AAM	50	--	AAM	50	--
24 hr (NOTE 2)	150	--	24 hr	150	--
3. Sulfur 3 hr Dioxide --	80	0.03	AAM	1,300	0.5
	365	0.14	24 hr	--	--
4. Carbon Monoxide	10,000	9.0	8 hr	10,000	9.0
	40,000	35.0	1 hr	40,000	35.0
5. Ozone 1 hr (NOTE 3)	235	0.12	1 hr	235	0.12
6. Nitrogen AAM Dioxide	100	0.05	AAM	100	0.05
7. Lead Calendar	1.5	--	Calendar	1.5	--
			quarter		quarter

All values other than annual values are maximum concentrations not to be exceeded more than once per year (except for Lead). For Lead, the first exceedance is considered a violation of the standard. Parts per million (ppm) values are approximate only. All concentrations relate to air at standard conditions of 25 degrees centigrade temperature and 760 millimeter mercury pressure.

NOTE 1: This value of 150 ug/m³ for a 24-hour averaging interval is maintained as a guide to be used in addressing particulate problem areas. In those areas where it is exceeded, PM₁₀ monitoring will be required, unless it is determined that the data is biased by an activity or event such as short term construction. Such monitor(s)

shall be operated for at least a period of one calendar year (i.e., January 1 through December 31) following the federally designated six day sampling schedule. In any area where a single air contaminant source is the predominant particulate emitter the Technical Secretary shall order the source to install and operate said PM₁₀ monitoring network. In other areas the Technical Secretary shall be responsible for insuring that said monitoring is accomplished.

NOTE 2: The 24-hour guideline is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 ug/m₃, as determined by Appendix K in the Federal Register, Volume 52, No. 126, July 1, 1987, is equal to or less than one.

NOTE 3: The standard is attained when the expected number of days per calendar year with maximum hourly concentration above 0.12 ppm (235 ug/m³) is equal to or less than 1 as determined by the Federal Register, Volume 44, No. 28, February 8, 1979, Part V, Appendix H.

- (b) Tennessee Ambient Air Quality Standards for Gaseous Fluorides Expressed as HF.

TABLE II

Secondary Standards		
Concentration		Averaging Interval
ug/m ³	ppb by vol	
1.2	1.5	30 days
1.6	2.0	7 days
2.9	3.5	24 hrs.
3.7	4.5	12 hrs.

NOTE: All values are maximum not to be exceeded more than once per year. Concentrations in micrograms per cubic meter (ug/m³) are approximate only. All conditions relate to air at standard conditions of 25°C temperature and 760 millimeters of mercury pressure. All averaging intervals are consecutive time periods.

- (c) A hydrogen chloride (expressed as HCL) value of 70.0 ug/m³ HCL, 24-hour average, shall be used as a guidance level in assessing air quality impact, excluding the burning of fossil fuels.
- (d) TENNESSEE AMBIENT AIR QUALITY STANDARDS for Gaseous Fluorides expressed as HF in the vicinity of Primary Aluminum Reduction Plants in operation on or before December 31, 1973.

TABLE III
Secondary Standard

Concentration		Averaging Interval
ug/m ³	ppm by vol	
0.5	0.6	30 days

NOTE 1: All values are maximum not to be exceeded more than once per year. Concentrations in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) are approximate only. All conditions relate to air at standard conditions of 25° Centigrade and 760 mm mercury.

NOTE 2: This standard shall be attained at a distance of 13.8 km downwind from plants in operation on or before December 31, 1973.

NOTE 3: The 30 day standard contained in Table II shall be met in the vicinity of the plant at locations designated in Note 4.

NOTE 4: Air quality sensors to monitor attainment and maintenance of these air quality standards shall be placed in the primary downwind direction from the plant at locations approved by the Technical Secretary. An air quality sensor to monitor attainment with the standard contained in Table II shall be at a location not less than 2.9 km or greater than 5.5 km from the plant. An air quality sensor to monitor attainment with the standard contained in Table III shall be at a distance greater than 13.8 km from the plant.

NOTE 5: Any controls installed before the effective date of this standard in addition to those required at Primary Aluminum Reduction Plants in operation on or before December 31, 1973, shall continue to be operated and maintained.

Authority: T.C.A. §§68-201-105 and 4-5-201 et seq. Administrative History: Original rule certified June 7, 1974. Amendment filed January 10, 1977; effective February 9, 1977. Amendment filed October 2, 1979; effective November 16, 1979. Amendment filed November 5, 1974; effective December 5, 1984. Amendment filed April 18, 1990; effective June 2, 1990. Amendment filed September 7, 1993; effective November 21, 1993. Amendment filed November 30, 1993; effective February 13, 1994. Amendment filed August 10, 1995; effective October 24, 1995. Amendment filed February 20, 1997; effective May 6, 1997.

These ambient air quality standards shall not be construed, applied, or interpreted to allow any significant deterioration of the existing air quality in any portion of the State.

Authority T.C.A. Section 68-201-105 and 4-5-202. Administrative History: Original rule filed January 10, 1977; effective February 9, 1977.

- (1) The nitrogen dioxide standard in this chapter is to be achieved statewide by July 1, 1975, and maintained thereafter. The total suspended particulate and sulfur dioxide standards, with the exception of those areas identified in Chapter 1200-3-19, are to be achieved by July 1, 1975, and maintained thereafter. For those total suspended particulate and sulfur dioxide areas identified in Chapter 1200-3-19 the primary standards are to be achieved by December 31, 1982, and maintained thereafter. The standard for lead is to be achieved by October 31, 1981, and maintained thereafter. The standards for ozone and carbon monoxide are to be achieved by December 31, 1982, and maintained thereafter except for areas where a five-year extension has been granted. The standards in the areas where the extension has been granted are to be achieved by December 31, 1987, and maintained thereafter. For the New Johnsonville nonattainment area for sulfur dioxide, the secondary standard is to be achieved by December 31, 1987 and maintained thereafter.

Authority T.C.A. Section 68-201-105 and 4-5-202. Administrative History: Original rule filed January 10, 1977; effective February 9, 1977. Amendment filed May 7, 1979; effective June 21, 1979. Amendment filed October 2, 1979; effective November 16, 1979. Amendment filed November 12, 1982; effective December 13, 1982. Amendment filed September 7, 1993; effective November 21, 1993.

