

**RULES
OF
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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1200-3-3-.01 PRIMARY AIR QUALITY STANDARDS.

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. §§ 68-201-105 and 4-5-202. *Administrative History:* Original rule filed January 10, 1977; effective February 9, 1977.

1200-3-3-.02 SECONDARY AIR QUALITY STANDARDS.

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. §§68-201-105 and 4-5-202. *Administrative History:* Original rule filed January 10, 1977; effective February 9, 1977.

1200-3-3-.03 TENNESSEE'S AMBIENT AIR QUALITY STANDARDS.

- (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.

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Table I

ug/m³ - Micrograms per cubic meter
 AAM - Annual arithmetic mean

Contaminants	Primary Standard		Averaging Interval	Secondary Standard Concentration		Averaging Interval
	ug/m ³	ppm by vol.		ug/m ³	ppm by vol.	
1. Total Suspended Particulates (TSP) (Note 1)		- -		150	- -	24 hr.
2. PM ₁₀ (Note 2)	50 150		AAM 24 hr.	50 150		AAM 24 hr.
3. Sulfur Dioxide	80 365	0.03 0.14	AAM 24 hr.	1,300	0.5	3 hr.
4. Carbon Monoxide	10,000 40,000	9.0 35.0	8 hr. 1 hr.	10,000 40,000	9.0 35.0	8 hr. 1 hr.
5. Ozone (Note 3)	235	0.12	1 hr.	235	0.12	1 hr.
6. Nitrogen Dioxide	100	0.05	AAM	100	0.05	AAM
7. Lead	1.5		Calendar quarter	1.5		Calendar 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 millimeters mercury pressure.

Note:

1. The value of 150 ug/m³ for a 24-hour averaging interval is maintained as a guide to be used in assessing particulate problem areas. In those areas where it is exceeded, PM-10 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 a 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 PM-10 monitoring network. In other areas the Technical Secretary shall be responsible for insuring that said monitoring is accomplished.
2. The 24-hour guideline 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.
3. The standard is attained when the expected number of days per calendar year with maximum hourly concentration above 150 ug/m³, as determined by Appendix K in Federal Register, Volume 52, No. 126, July 1, 1987, is equal to or less than one.

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- (b) Tennessee Ambient Air Quality Standards for Gaseous Fluorides Expressed as HF. Sources that emit gaseous fluorides, including hydrogen fluoride, and that are within a source category (including sources that would otherwise be included in the source category but fall below emissions or size thresholds for the source category) for which the United States Environmental Protection Agency has promulgated standards under section 112 of the Clean Air Act are deemed to be in compliance with any requirements under this section if they meet any and all applicable requirements of the federal standards. This subparagraph is not applicable to sources subject to 40 CFR 63, Subpart LL.

Table II

Secondary Standards

Concentration ppb		Averaging
ug/m ³	by vol.	Interval
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 ppb		Averaging Interval
ug/m ³	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 (ug/m³) 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

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shall be at a location not less than 2.9 km or greater than 5.5 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 4-5-202 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, 1984; 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. Amendment to rule filed August 15, 2006; effective October 29, 2006.

1200-3-3-.04 NONDEGRADATION.

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

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

1200-3-3-.05 ACHIEVEMENT.

- (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 area 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. §§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.