

**Shelby County Air Code Section 3-9            Malfunctions, Startups and Shutdowns**

For the purpose of enforcement of malfunction, startups and shutdowns, Chapter 1200-3-20 of the Tennessee Air Pollution Control Regulations, as effective on June 30, 2003, is hereby adopted by reference as a portion of this Code. Such regulations shall become a part of this Code and shall have the same effect as if set out in full herein.

(Shelby County Ord. No. 9, adopted October 15, 1979. Shelby County Ord. No. 159, effective 5-14-95. Amended by Shelby County Ord. No. 203, effective 9-18-98. Amended by Shelby County Ord No. 241, effective 8-23-01. Amended by Shelby County Ord. No. 265, effective September 30, 2002. Amended by Shelby County Ord. No. 276, effective December 16, 2003. 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 1200-3-20

LIMITS ON EMISSIONS DUE TO MALFUNCTIONS, START-UPS, AND SHUTDOWNS

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**1200-3-20-.01 PURPOSE.**

- (1) The purpose of this chapter is to place reasonable limits on the amount of emissions an air contaminant source can emit due to a malfunction or during startup or shutdown of said source. Without such limits in many parts of the state and specifically in nonattainment areas, air quality standards will not be met and public health and welfare will be endangered.

Authority: T.C.A. Section 68-201-105 and 4-5-201 et seq. Administrative History: Original Rule certified March 21, 1979. Repeal and new rule filed July 13, 1994; effective September 26, 1994.



**1200-3-20-.02 REASONABLE MEASURES REQUIRED.**

- (1) Air contaminant sources must take all reasonable measures to keep emissions to a minimum during startups, shutdowns, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment and/or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of outside consultants and contractors, and other appropriate means. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

Authority: T.C.A. Section 68-201-105 and 4-5-201 et seq. Administrative History: Original rule filed February 5, 1979; effective March 21, 1979. Amendment filed September 21, 1988; effective November 6, 1988. Repealed and new rule filed July 13, 1994; effective September 26, 1994. Amendment filed August 28, 1997; effective November 11, 1997.





**1200-3-20-.03 NOTICE REQUIRED WHEN MALFUNCTION OCCURS.**

- (1) When any air contaminant source malfunctions in such a manner as to cause the emission of air contaminants in excess of the applicable emission standards contained in Division 1200-3 or any permit issued thereto, or of sufficient duration to cause damage to property or public health, the owner or operator of the air contaminant source shall promptly notify the Technical Secretary of such malfunction and provide a statement giving all pertinent facts, including the estimated duration of the malfunction. Violations of the visible emission standard (excluding visible emissions caused by hazardous air pollutants named in Chapter 1200-3-11) which occur for less than 20 minutes in one day (midnight to midnight) need not be reported. Prompt notification will be within 24 hours of the malfunction and shall be provided by telephone to the Division's Nashville office. The Technical Secretary shall be notified when the malfunction has been corrected. In attainment and unclassified areas if emissions other than from sources designated as significantly impacting on a nonattainment area in excess of the standards will not and do not occur over more than a 24-hour period (or will not recur over more than a 24-hour period) and no damage to property and or public health is anticipated, notification is not required. Any malfunction that creates an imminent hazard to health must be reported by telephone immediately to the Division's Nashville office and to the State Civil Defense.

Authority: T.C.A. Section 68-201-105 and 4-5-201 *et seq.* Administrative History: Original Rule certified March 21, 1979. Amended: filed September 4, 1981; effective October 19, 1981. Repeal and new rule filed July 13, 1994; effective September 26, 1994.



**1200-3-20-.04 LOGS AND REPORTS.**

- (1) (a) A log of all malfunctions, startups, and shutdowns resulting in emissions in excess of the standards in Division 1200-3 or any permit issued thereto must be kept at the plant. This log must record at least the following:
1. Stack or emission point involved.
  2. Time of malfunction, startup, or shutdown and/or when first noticed.
  3. Type of malfunction and/or reason for shutdown.
  4. Time startup or shutdown was complete or time the air contaminant source returned to normal operation.
  5. The company employee making entry on the log must sign, date and indicate the time of each log entry.
- (b) The information under item (a)1. and 2. of this paragraph must be entered into the log by the end of the shift during which the malfunction or startup began.
- (c) All information shall be entered in the log no later than twenty-four (24) hours after the startup or shutdown is complete, or the malfunction has ceased or has been corrected.
- (d) Any later discovered corrections can be added in the log as footnotes with the reason given for the change.
- (2) The owner or operator of all sources located in non-attainment areas or having a significant impact on air quality in a nonattainment area (for the pollutant designated by the Technical Secretary) must submit a report to the Technical Secretary within thirty (30) days after the end of each calendar quarter listing the times at which malfunctions, startups and/or shutdowns, which resulted in emissions greater than any applicable emission limits and the estimated amount of emissions discharged during such times. This report shall also include total emissions during the quarter and be reported in a format specified by the Technical Secretary. If these emissions are required to be reported under rule 1200-3-10 or under rules of Chapter 1200-3-16 then the report required by this paragraph is waived.

Authority: T.C.A. Section 68-201-105 and 4-5-201 et seq. Administrative History: Original Rule certified March 21, 1979. Amended effective November 6, 1988. Repeal and new rule filed July 13, 1994; effective September 26, 1994.



**1200-3-20-.05 COPIES OF LOG REQUIRED.**

The Technical Secretary may require the owner or operator of any air contaminant source to submit a copy of the upset log required under rule .04 of this chapter to him ten (10) days after the request is received. The Technical Secretary can require submission of copies of the entire log.

Authority: T.C.A. Section 68-201-105 and 4-5-201 *et seq.* Administrative History: Original Rule certified March 21, 1979. Repeal and new rule filed July 13, 1994; effective September 26, 1994.



**1200-3-20-.06 REPORT REQUIRED UPON THE ISSUANCE OF NOTICE OF VIOLATION.**

- (1) In the event excess emissions are emitted from any air contaminant source, a notice of violation shall automatically be issued except for visible emission levels included as a startup and/or shutdown permit condition under Paragraph 1200-3-5-.02(1) or determined to be de minimis under Rule 1200-3-20-.06.
- (2) The owner or operator of the violating air contaminant source shall submit within twenty (20) days after receipt of the notice of violation, the data required in paragraph (3) to assist the Technical Secretary in deciding whether to excuse or validate the violation. If the data required in 1200-3-20-.06(3) has previously been available to the Technical Secretary prior to the issuance of the notice of violation no further action is required of the violating source. However, if the source desires to submit additional information, then this shall be submitted within the twenty (20) day time period.
- (3) Each report required in 1200-3-20-.06(2) shall include as a minimum:
  - (a) The identity of the stack and/or other emission point where the excess emission(s) occurred;
  - (b) The magnitude of the excess emissions expressed in pounds per hour and the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;
  - (c) The time and duration of the emissions;
  - (d) The nature and cause of such emissions;
  - (e) For malfunctions the steps taken to correct the situation and the action planned to prevent the recurrence of such malfunctions;
  - (f) The steps taken to limit the excess emissions during the occurrence reported, and
  - (g) If applicable, documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practices for minimizing emissions.
- (4) Failure to submit the report required in paragraph (3) within the twenty (20) day period specified in Paragraph (2) shall preclude the admissibility of the data for consideration of excusal for malfunctions, and for any air contaminant source not having startup or shutdown levels as a permit condition.
- (5) Where the violations are determined from properly certified and operated continuous emission monitors, no notice of violations(s) will be automatically issued unless the specified de minimis levels are violated:

<u>Source Type</u>	<u>De Minimis Pollutant Monitored</u>	<u>De Minimis Level</u>
(a) Fuel Burning Installations subject to Rule 1200-3-5-.01 or Rule 1200-3-5-.05 and having fuel burning equipment of input capacity greater than 600 x 10 <sup>6</sup> Btu/hr.	Opacity	Two (2) percent of the time during a calendar quarter (Excluding periods of permitted startup or shutdown and excused malfunctions) so long as no more than one (1) 24-hour exceedance per calendar year takes place.
	Sulfur Dioxide	One (1) 24-hour exceedance per calendar year.
(b) Fuel Burning Installations subject to Rule 1200-3-5-.05 or Rule 1200-3-5-.10, or Rule 1200-3-6-.05	Opacity	One (1) percent of the time during a calendar quarter (Excluding periods of permitted startup or shutdown and excused malfunctions) so long as no more than one (1) 24-hour exceedance per calendar year takes place.
	Sulfur Dioxide	One (1) 3-hour exceedance per year and/or one 24-hour exceedance per year (applicable to sources having three hour standard only).
(c) Fuel Burning Installations subject to Rule 1200-3-16-.02 or Rule 1200-3-16-.59	Opacity	One (1) percent of the time during a calendar quarter (Excluding periods of permitted startup or shutdown and excused malfunctions) so long as no more than one (1) 24-hour exceedance per calendar year takes place.
	Sulfur Dioxide	One (1) 3-hour exceedance per year and/or one 24-hour exceedance per year (applicable to sources having three hour standard only).
(d) Kraft Recovery Furnaces subject to either Rule 1200-3-5-.09 or 1200-3-16-.29	Opacity	Six (6) percent of the time (Excluding periods of permitted startup or shutdown and excused malfunctions) so long as no more than one (1) 24-hour exceedance per calendar year takes place.
	Sulfur Dioxide	One (1) 3-hour exceedance per year and/or one 24-hour exceedance per year (applicable to sources having three hour standard only).



<u>Source Type</u>	<u>De Minimis Pollutant Monitored</u>	<u>De Minimis Level</u>
(e) Kraft Recovery Furnaces subject to either Rule 1200-3-7-.07 or 1200-3-16-.29	Total Reduced Sulfur	One (1) percent of the time during a calendar quarter (Excluding periods of permitted startup or shutdown and excused malfunctions).
(f) Lime Kilns subject to Rule 1200-3-7-.07(4).	Total Reduced Sulfur	Two (2) percent of the time during a calendar quarter (Excluding periods of permitted startup or shutdown and excused malfunctions).
(g) Sulfuric Acid Plants subject to Rule 1200-3-16-.06 and Liquid Sulfur Dioxide Plants subject To Rule 1200-3-19-.19.	Sulfur Dioxide	One (1) exceedance greater than 3 hours duration per year (excluding periods of excused malfunctions).
(h) Primary Zinc Smelters subject to Rule 1200-3-16-.24.	Sulfur Dioxide	One (1) exceedance of greater than 3 hours duration but less than 24-hour duration per calendar year and/or one 24-hour exceedance per year (Excluding periods of startup, shutdown, or excused malfunction).
(i) Electric Arc Furnaces subject to Rule 1200-3-16-.26.	Opacity	One (1) percent of the time during a calendar quarter (Excluding time periods of startup, shutdown, or excused malfunction) so long as no more than one (1) 24-hour exceedance per calendar year takes place.
(j) Sulfur Dioxide Abatement Systems Serving Facilities Producing Organophosphate Compounds.	Sulfur Dioxide	One (1) exceedance of greater than 3 hours duration per calendar year (Excluding periods of excused malfunctions).
(k) Secondary Lead Furnaces subject to Rule 1200-3-16-.12	Opacity	One half (1/2) percent of the time during a calendar quarter (Excluding time periods of startup, shutdown or excused malfunction).

<u>Source Type</u>	<u>De Minimis Pollutant Monitored</u>	<u>De Minimis Level</u>
(l) Any source type utilizing a thirty day rolling average	Nitrogen Oxides	None (Excluding periods of startup, shutdown, or excused malfunction).

For purposes of this Paragraph, the term 24-hour exceedance means a continuous exceedance of an emission standard having a total duration of greater than 24 hours (midnight to midnight).

- (6) Irrespective of the startup and shutdown exemptions set forth on the operating permit of any air contaminant source, no emission shall be allowed which can be proved by the Technical Secretary to cause or contribute to any violations of the Ambient Air Quality Standards contained in Chapter 1200-3-3.

Authority: T.C.A. Section 68-201-105 and 4-5-201 et seq. Administrative History: Original Rule certified March 21, 1979. Amended effective December 14, 1981. Amended effective November 6, 1988. Repeal and new rule filed July 13, 1994; effective September 26, 1994.

**1200-3-20-.07 SPECIAL REPORTS REQUIRED.**

- (1) The Technical Secretary may require any air contaminant source to submit a report within thirty (30) days after the end of each calendar quarter in a format he specifies containing as a minimum the following information:
  - (a) The dates on which malfunctions, startups, and shutdowns resulted in emissions greater than those allowed by the emission standards in this Division 1200-3.
  - (b) The estimated amount of air contaminants emitted in excess of the emission standards in units of pounds of air contaminant per hour and pounds of air contaminant per day.
  - (c) Other emission characteristics such as stack exit temperature, stack height and diameter, stack exit velocities, and other similar information.
  - (d) Information needed to evaluate the possibility of instituting measures to eliminate or reduce the number of malfunctions and/or the amount of emissions from malfunctions, startups, and shut downs.
  - (e) Information to determine if the excess emissions truly result from a malfunction.
  - (f) Information to evaluate the impact of the emissions on the surrounding area.

Authority: T.C.A. Section 68-201-105 and 4-5-201 et seq. Administrative History: Original Rule certified March 21, 1979. Repeal and new rule filed July 13, 1994; effective September 26, 1994.



**1200-3-20-.08    RIGHTS RESERVED.**

- (1)     Nothing in this chapter shall be construed to limit the obligation of the source to attain and maintain the ambient air quality standards nor the authority of the Technical Secretary and/or Board to institute actions under other Chapters of these rules and the Tennessee Air Quality Act.

Authority: T.C.A. Section 68-201-105 and 4-5-201 *et seq.* Administrative History: Original Rule certified March 21, 1979. Repeal and new rule filed July 13, 1994; effective September 26, 1994.



**1200-3-20-.09    ADDITIONAL SOURCES COVERED.**

- (1)     The Technical Secretary may order the owner or operator of other air contaminant sources to report in accordance with the requirements in this chapter for those sources in nonattainment areas or significantly impacting on nonattainment areas when he has reason to believe that an ambient air quality standard may be violated in the general vicinity where the source is located. There is sufficient reason (for purposes of this rule) to believe a standard may be violated if a value not to be exceeded more than once in a year is equaled or exceeded once and/or if individual readings have a mean excess of ninety per cent of a standard set for any given averaging interval regardless of the acceptability of the monitoring site, calibration of the monitor, and other similar matters. Even if there are no monitors in an area, if mathematical modeling and/or physical damage in the area indicate the standards may be violated, he may order such reporting.

Authority: T.C.A. Section 68-201-105 and 4-5-201 *et seq.* Administrative History: Original Rule certified November 16, 1979. Repeal and new rule filed July 13, 1994; effective September 26, 1994.

