

Shelby County Air Code Section 3-1A Definitions

For the purpose of enforcement of the definitions, Chapter 1200-3-2 of the Tennessee Air Pollution Regulations, as effective on June 30, 2003, is adopted by reference as a portion of the Shelby County Air Code. Such regulations shall become a part of this Code and shall have the same effect as if set out in full herein. In addition, the following definition is also adopted into this Code.

Note: The following term and definition is also adopted into Section 3-1A by Shelby County Ordinance 159:

Health Officer is the Health Officer for Memphis and Shelby County.

(A definition of Odor was adopted by Shelby County Ordinance 159 and later deleted by Ordinance 171.)

(Shelby County Ord. No. 9, adopted October 15, 1979. Shelby County Ord. No. 159, effective 5-14-95. Amended by Shelby County Ord. No. 171, effective 1-12-96. Amended by Shelby County Ord. No. 203, effective 9-18-99. 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
THE TENNESSEE DEPARTMENT ENVIRONMENT AND CONSERVATION
BUREAU OF ENVIRONMENT
DIVISION OF AIR POLLUTION CONTROL

CHAPTER 1200-3-2

DEFINITIONS

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Note: The following term and definition is also adopted into Section 3-1A by Shelby County Ordinance 159:

Health Officer is the Health Officer for Memphis and Shelby County.

1200-3-2-.01 GENERAL DEFINITIONS.

- (1) The following terms shall, unless the context clearly indicates otherwise, have the following meaning:
 - (a) Air Contaminant is particulate matter, dust, fumes, gas, mist, smoke, or vapor, or any combinations thereof.
 - (b) Air Contaminant Source is any and all sources of emission of air contaminants, whether privately or publicly owned or operated. Without limiting the generality of the foregoing, this term includes all types of business, commercial and industrial plants, works, shops, and stores, heating and power plants and stations, buildings and other structures of all types, including multiple family residences, apartment houses, office buildings, hotels, restaurants, schools, hospitals, churches and other institutional buildings, automobiles, trucks, tractors, buses and other motor vehicles, garages, vending and service locations and stations, railroad locomotives, ships, boats and other waterborne craft, portable fuel burning equipment; incinerators of all types, indoor and outdoor, refuse dumps and piles, and all stack and other chimney outlets from any of the foregoing; provided, however, that neither automobiles, trucks, tractors, buses, or other motor vehicles powered by any fuel other than diesel oil and which were manufactured prior to September 1, 1967, automobiles, trucks, tractors, buses, or other motor vehicles powered by diesel oil and manufactured prior to January 1, 1970, nor automobiles, trucks, tractors, buses, or other motor vehicles which are equipped to comply and do comply with the Federal "Motor Vehicle Air Pollution Control Act" shall be considered or determined to be an "air contaminant source".
 - (c) Reserved.
 - (d) Air Pollution means the presence in the outdoor atmosphere of one or more air contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant, or animal life, or to property, or which would reasonably interfere with the enjoyment of life and property.
 - (e) Alternative Method means any method of sampling and analyzing for an air pollutant which is not a reference method or an equivalent method, but which has been demonstrated to the Technical Secretary's satisfaction to produce, in specific cases, results adequate for its determination of compliance, or any method so designated by these regulations.
 - (f) Ambient Air is that portion of the atmosphere, external to buildings.
 - (g) Best Available Control Technology (BACT) is an emission limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under these rules which would be emitted from any proposed new or modified air contaminant source which the Technical Secretary, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under Chapters 1200-3-11 and 1200-3-16 of these rules. If the Technical Secretary determines that technological or economic limitations on the limitations on the application of measurement methodology to a particular class of sources would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to require the application of best available control technology. Such standard shall, to the degree possible, set forth the emission reduction achievable by implementation of such design, equipment, work practice, or operation, and shall provide for compliance by means which achieve equivalent results.
 - (h) Board means the Air Pollution Control Board of the State of Tennessee.
 - (i) Commenced means that the owner or operator has undertaken of a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.
 - (j) Construction means fabrication, erection, or installation of a stationary source or modification.

- (k) Continuous Monitoring is sampling and analysis of air contaminants in a continuous or timed sequence, using techniques which will adequately reflect actual emission levels or ambient concentrations on a continuous basis.
- (l) Cupola is a stack-type furnace in which fuel, metal and fluxing agents are intermixed and is used for producing molten metal. It consists primarily of, but is not limited to, furnace proper, tuyeres, fans or blowers, tapping ports, charging equipment, other auxiliary equipment. Cupolas are further categorized for the purpose of these regulations as follows:
 - 1. Ferrous - a cupola in which the major component of the metal produced is iron.
 - 2. Jobbing - a cupola used in an intermittent type operation where the processed weight is not in excess of 20,000 pounds per hour and the operating (firing) time is not in excess of 4 hours per day.
 - 3. Existing - a cupola placed in operation at its present location prior to April 3, 1972.
- (m) Department is the Department of Health and Environment of the State of Tennessee.
- (n) Effective Date of these regulations is April 3, 1972.
- (o) Emission is the release of material to the ambient air.
- (p) Equivalent Method is any method of monitoring, sampling and analyzing for an air contaminant which can be demonstrated to the Technical Secretary's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specific conditions, or any method so designated by these regulations.
- (q) Existing Source is, with respect to any rule, any air contaminant source which is not a new source.
- (r) Fuel Burning Equipment is any equipment, device, or contrivance and all appurtenances thereto, in which fuel is burned for the primary purpose of producing thermal energy and in which the material being heated is not contacted by, and adds no substance to, the products of combustion.
- (s) Fuel Burning Installation consists of one or more units of fuel-burning equipment where the products of combustion are discharged through a single stack or where the products of combustion are discharged through more than one stack the plumes from which tend to merge into a single plume.
- (t) Fugitive Dust is any visible emission, other than water droplets, issuing from any source other than through a stack.
- (u) Garbage is putrescible animal or vegetable waste.
- (v) Hazardous Air Contaminant is any air contaminant which may cause, or contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness and has been so designated by the Board.
 - (w) Incinerator is any equipment, device, or contrivance used for disposal of waste or refuse by burning, excluding wigwam burners, air curtain destructors, and air curtain incinerators. However, wigwam burners, air curtain destructors, and air curtain incinerators may be treated as incinerators in New Source Performance Standards and standards developed to implement guideline standards and requirements promulgated by the EPA.
- (x) Isokinetic Sampling means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sampling point.
- (y) Kraft Mill is any pulping process which uses for a cooking liquor an alkaline sulfide solution containing sodium hydroxide and sodium sulfide.
- (z) Malfunction means any sudden and unavoidable failure of air pollution control equipment or process

equipment, or for a process to operate in an abnormal and unusual manner. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

(aa) Modification is any physical change in or change in the method of operation of an air contaminant source, which increases the amount of any air contaminant (to which an emission standard applies) emitted by such source or which results in the emission of any air contaminant (to which an emission standard applies) not previously emitted except that:

1. Routine maintenance, repair, and replacement shall not be considered physical changes, and
2. The following shall not be considered a change in the method of operation:
 - (i) An increase in the production rate, if such increase does not exceed the operating design capacity nor the stated production rate on the permit of the affected source.
 - (ii) An increase in hours of operation if such increase does not exceed the operating hours stipulated as a permit condition of the source.
 - (iii) The use of an alternative fuel if the source is designed to accommodate such alternative fuel.
 - (iv) Required alterations to equipment for the use of an alternative fuel or raw material by reason of an order under Section 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan in effect pursuant to the Federal Power Act.
3. Any physical change in or change in the method of operation of an air contaminant source subject to a major source operating permit issued under paragraph 1200-3-9-.02(11), which does not meet the definition of "Title 1 Modification" under part 1200-3-9-.02(11)(b)28. but which qualifies as an operational flexibility change under part 1200-3-9-.02(11)(a)4., as a minor permit modification under subpart 1200-3-9-.02(11)(f)5.(ii), or for group processing of minor permit modifications under subpart 1200-3-9-.02(11)(f)5.(iii), shall not require a construction permit under subparagraph 1200-3-9-.01(1)(a).
4. Any physical change in or change in the method of operation of an air contaminant source not subject to requirements of paragraphs 1200-3-9-.02(11), 1200-3-9-.01(4), and 1200-3-9-.01(5) and which does not result in emissions exceeding the emissions allowable under the existing operating permit and which does not result in the emission of any air contaminant (to which an emission standard applies) not previously emitted, shall not require a construction permit under subparagraph 1200-3-9-.01(1)(a). The air contaminant source, to make changes pursuant to this part, shall provide the Technical Secretary with written notification of at least 7 days in advance of the proposed change. The written notification shall contain a brief description of the change, the date on which the change will occur, pollutants emitted, declaration of any change in emissions, and any applicable requirements that would apply as a result of the change. The written notice shall also contain a statement that the change does not result in emissions exceeding the emissions allowable under the existing operating permit. The Technical Secretary and the air contaminant source shall attach each such notice to their copy of the relevant permit.
5. The burden of proof establishing that a change is excepted under parts 1., 2., 3., and 4., is on the owner or operator. Further expansions or restrictions of the definition may be listed in specific chapters or rules.
6. "Major modification" is defined in paragraph 1200-3-9-.01(4) and shall be overriding for the purposes of that paragraph.

(bb) New Nitric Acid Plant is any air contaminant source producing weak nitric acid (acid which is 30 to 70 percent in strength) by either the pressure or atmospheric pressure process.

- (cc) New Source is, with respect to any rule, any air contaminant source the construction or modification of which is commenced on or after the date specified in that rule. (If no date is specified in a rule, then the effective date of the rule, or the specific applicable provision of the rule, is the cut off date). However, if an effective earlier date rule is contained in the same provision, then that earlier date is the cut off date whether such commencement was for an entirely or substantially new source or the modification of an existing source. The word substantially here means replacing virtually all of an existing source, excluding the foundation and utility and/or control lines to the site. The construction of a new source at an air contaminant source subject to a major source operating permit issued under paragraph 1200-3-9-.02(11), which is not subject to paragraphs 1200-3-9-.01(4) and 1200-3-9-.01(5) but which qualifies as a minor permit modification under subpart 1200-3-9-.02(11)(f)5.(ii), shall not require a construction permit under subparagraph 1200-3-9-.01(1)(a).
- (dd) New Source Performance Standard is a standard for the emission of an air contaminant promulgated by the Administrator of the Environmental Protection Agency and published in the Federal Register.
- (ee) New Sulfuric Acid Plant is any air contaminant source producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans or acid sludge, but does not include air contaminant sources where conversion to sulfuric acid is utilized primarily as a means of reducing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.
- (ff) Opacity is the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.
- (gg) "National Emission Standards for Hazardous Air Pollutants" are standards for the emissions of hazardous air pollutants promulgated by the Administrator of the Environmental Protection Agency and published in the Federal Register.
- (hh) Owner or operator is any person who owns, leases, operates, controls, or supervises an air contaminant source.
- (ii) Particulate Matter is any material, except uncombined water, that exists in a finely divided form as a liquid or solid.
- (jj) Part Per Billion (ppb) is a term describing parts of an air contaminant per billion parts of gas by volume (1 ppb equals 0.0000001 percent by volume).
- (kk) Part Per Million (ppm) is a term describing parts of an air contaminant per million parts of gas by volume (1 ppm equals 0.0001 percent by volume).
- (ll) Person is any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, political subdivision, an agency, authority, Commission, or Department of the United States Government, or of the State of Tennessee Government; or any other legal entity or their legal representative, agent, or assigns.
- (mm) Point Source shall have the meaning as defined in Part 51 of Title 40 of the Code of Federal Regulations.
- (nn) Political Subdivision is any municipality, city, incorporated town, county, district or authority, or any portion or combination of two or more thereof.
- (oo) Portland Cement Plant is any air contaminant source manufacturing portland cement by either the wet or dry process.
- (pp) Process Emission is any emission of an air contaminant to the ambient air other than that from fuel burning equipment, incinerator, wigwam burners, or open burning.
- (qq) Process Emission Source is one or more units of processing equipment which may be operated independently of other parts of the operations at any given manufacturing or processing facility; also, where it is common practice to group more than one unit of like or similar processing equipment together and to apply a single or combined unit of air pollution control equipment to the emissions of the

entire group, such group of units shall be construed as a process emission source.

- (rr) Process Weight means the total weight of all materials introduced into any specific process that may cause any emission of particulate matter. Solid fuels charged are considered as part of the process weight, but liquid and gaseous fuels and combustion air are not.
- (ss) Process Weight Rate is a rate established as follows:
 1. For continuous or long run, steady-state, operations, it is the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof.
 2. For cyclical or batch source operations, it is the total process weight for a period which covers a complete or an integral number of cycles, divided by the hours of actual process operation during such period.
 3. Where the nature of any process or operation or the design of equipment is such as to permit more than one interpretation of this definition, that interpretation which results in the minimum value for allowable emissions shall apply.
- (tt) Proportional Sampling means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.
- (uu) Reference Method is a method of monitoring, sampling, and analyzing for an air contaminant as described in these regulations.
- (vv) Reserved.
- (ww) Salvage Operation is any business, trade or industry engaged in whole or in part, in reclaiming one or more items of value.
- (xx) Shutdown means the cessation of operation of an air contaminant source for any purpose.
- (yy) Smoke is small gas-borne particles resulting from incomplete combustion, consisting predominantly, but not exclusively, of carbon and other combustible material. It does not include water vapor or water droplets.
- (zz) Reserved.
- (aaa) Stack is any chimney, flue, duct, conduit, exhaust, vent or opening of any kind whatsoever, capable of, or used for, the emission of air contaminants.
- (bbb) Standard means a standard of performance promulgated under these regulations.
- (ccc) Startup is the setting in operation of an air contaminant source for the production of product for sale or use as raw materials or steam or heat production.
- (ddd) Stationary Source means any building, structure, facility, or installation which emits or may emit any air contaminant.
- (eee) Suspended Particulates is particulate matter which will remain suspended in air for an appreciable period of time.
- (fff) Technical Secretary is the Technical Secretary of the Air Pollution Control Board of the State of Tennessee.
- (ggg) Wigwam Burner is a type of burner commonly known as tepee, truncated cone, conical burner, or silo burner.
- (hhh) Excess Emission means an emission rate which exceeds any applicable emission limitation prescribed

by subsequent chapters of these regulations. The averaging time and test procedures for determining such excess emissions shall be as specified as part of the applicable emission limitation.

- (iii) Liquid Sulfur Dioxide Plants are any plants designed to produce compressed liquid sulfur dioxide as a final product.
- (jjj) Pellet Plants are plants designed to produce iron oxide pellets for manufacture of iron or pre-reduction utilizing iron calcines produced from a natural bearing iron ore source.
- (kkk) Mine Shaft Heaters are fuel burning equipment used during cold weather to prevent ice from forming in a mine shaft with the primary purpose of safety assurance for miners and protection of shaft equipment.
- (lll) Reserved.
- (mmm) Reserved.
- (nnn) Reasonably Available Control Technology (RACT) is the lowest emission limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.
- (ooo) Recovery Furnace Stack means the stack from which the products of combustion are emitted to the ambient air from the recovery furnace.
- (ppp) Total Reduced Sulfur (TRS) means the sum of the listed compounds: hydrogen sulfide, mercaptans, dimethyl sulfide, and dimethyl disulfide.
- (qqq) Lime Kiln means a unit used to calcine lime mud, which consists primarily of calcium carbonate, into quicklime, which is calcium oxide.
- (rrr) Smelt Dissolving Tank means a vessel used for dissolving the smelt collected from the recovery furnace.
- (sss) Digester System means each continuous digester or each batch digester used for the cooking of wood in white liquor, and associated flash tank(s), blow tank(s), chip streamer(s), and condenser(s).
- (ttt) Black Liquor Solids means the dry weight of the solids which enter the recovery furnace in the black liquor.
- (uuu) Multiple-effect Evaporator System as it applies to the paper industry in paragraph 1200-3-7-.07(4) means the multiple-effect evaporators, associated condenser(s), and hotwell(s) used to concentrate the spent cooking liquid that is separated from pulp (black liquor).
- (vvv) Primary Aluminum Reduction Plant means any source manufacturing aluminum by electrolytic reduction.
- (www) Potroom means a building unit which houses a group of electrolytic cells in which aluminum is produced.
- (xxx) Potroom group means an uncontrolled potroom, a potroom which is controlled individually or a group of potrooms or potroom segments ducted to a common control system.
- (yyy) Roof Monitor means that portion of the roof of a potroom where gases not captured at the cell exit from the potroom.
- (zzz) Total Fluorides means the particulate and gaseous fluorides generated and emitted from a potroom at a primary aluminum reduction plant.
- (aaaa) Center Worked Prebake means a cell in a potroom that can be worked from the end or internally without removing the side covers.
- (bbbb) Side Worked Prebake means a cell in a potroom that must be worked manually along both sides with the

side covers removed.

- (cccc) Soda Recovery Boiler is a boiler used in the soda pulping process for the purpose of converting concentrated black liquor, by incineration, into sodium carbonate (Na_2CO_3) where the remaining organic matter from the sodium salts is burned to produce heat for steam generation.
- (dddd) Calendar Quarter means a period of time beginning at the first minute of the first date and ending at midnight of the date of each of the following intervals: January 1 to March 31, April 1 to June 30, July 1 to September 30, or October 1 to December 31.
- (eeee) A Continuous Emission Monitor is an instrument capable of measuring and recording emissions of various pollutants and meeting the performance specifications stated by Rule 1200-3-10-.02.
- (ffff) Nonattainment Area shall mean either as follows:
 1. A geographical area designated by the US Environmental Protection Agency or the Board as nonattainment for an air contaminant (pollutant) for which there is a national ambient air quality standard; or
 2. For any other air contaminant for which there is an ambient air quality standard in Chapter 1200-3-3, a geographical area designated by the Board as not attaining that standard.
- (gggg) "PM₁₀" means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method based on Appendix J, as referenced in the Federal Register, July 1, 1987, Vol. 52, No. 126, pp 24665-24666 and designated in accordance with 40 CFR 53 as amended on July 1, 1987, Federal Register, Vol. 52, No. 126, pp 24727-24735, or by an equivalent method designated in accordance with 40 CFR 53.
- (hhhh) "PM₁₀ emissions" means finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 10 micrometers emitted to the ambient air as measured by an applicable reference method, or an equivalent or alternative method, specified in the regulations, or by a test method specified in the State Implementation Plan.
- (iiii) "Total Suspended Particulate (TSP)" means particulate matter as measured by the method described in Appendix B, 40 CFR 50.
- (jjjj) "Particulate Matter Emissions" means all finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by applicable reference methods, or an equivalent or alternative method specified in the regulations, or by a test method specified in the State Implementation Plan.

Note: The following term and definition is also adopted into Section 3-1A by Shelby County Ordinance 159: Health Officer is the Health Officer for Memphis and Shelby County.

Authority: T.C.A. §§68-201-105 and 4-5-202. Administrative History: Original rule certified June 7, 1974. Amendment filed January 10, 1977; effective February 9, 1977. Amendment filed February 28, 1978; effective March 30, 1978. Amendment filed May 17, 1978; effective June 16, 1978. Amendment filed February 5, 1979; effective March 21, 1979. Amendment filed May 7, 1979; effective June 21, 1979. Amendment filed September 10, 1979; effective October 25, 1979. Amendment filed December 31, 1979; effective February 14, 1980. Amendment filed May 13, 1980; effective June 27, 1980. Amendment filed December 8, 1981; effective January 22, 1982. Amendment filed December 18, 1981; effective February 1, 1982. Amendment filed July 3, 1984; effective August 1, 1984. Amendment filed September 22, 1988; effective November 6, 1988. Amendment filed April 18, 1990; effective June 2, 1990. Amendment filed May 17, 1990; effective July 2, 1990. Amendment filed April 18, 1990; effective August 2, 1990. Amendment filed May 12, 1993; effective June 26, 1993. Amendment filed June 14, 1993; effective July 29, 1993. Amendment filed December 30, 1999; effective March 14, 2000. Amendment filed June 4, 2001; effective August 18, 2001. Amendment filed January 17, 2003; effective April 1, 2003.

ABBREVIATIONS.

(1) The following abbreviations shall, unless the context clearly indicated otherwise, have the following meaning:

(a)	ASTM	=	American Society for Testing and Materials
(b)	Btu	=	British thermal unit
(c)	C	=	degrees Centigrade
(d)	cal	=	calorie
(e)	CO	=	carbon monoxide
(f)	CO ₂	=	carbon dioxide
(g)	dscf	=	dry cubic foot at standard conditions
(h)	dscm	=	dry cubic meter at standard conditions
(i)	°F	=	degrees Fahrenheit
(j)	g	=	gram
(k)	gr	=	grain
(l)	H ₂ S	=	hydrogen sulfide
(m)	H ₂ SO ₄	=	sulfuric acid
(n)	Hg	=	mercury
(o)	hr	=	hour
(p)	kg	=	kilogram
(q)	lb	=	pound
(r)	mg	=	milligram
(s)	mm	=	millimeter
(t)	MW	=	megawatt
(u)	NO	=	nitric oxide
(v)	NO ₂	=	nitric dioxide
(w)	NO _x	=	nitric oxides
(x)	ppb	=	parts per billion
(y)	ppm	=	parts per million
(z)	psia	=	pounds per square inch absolute
(aa)	sec	=	second
(bb)	SO ₂	=	sulfur dioxide
(cc)	µg	=	microgram

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

