

## **REGULATION 1.02 Definitions**

### **Louisville Metro Air Pollution Control District Jefferson County, Kentucky**

**Pursuant To:** KRS Chapter 77 Air Pollution Control

**Relates To:** KRS Chapter 77 Air Pollution Control

**Necessity and Function:** KRS 77.180 authorizes the Air Pollution Control Board to adopt and enforce all orders, rules, and regulations necessary or proper to accomplish the purposes of KRS Chapter 77. This regulation contains definitions used throughout District regulations.

#### **SECTION 1 Definitions**

The following terms shall have the meaning given to them in this regulation except as otherwise specified in the District's regulations. All terms not defined in these regulations shall have the meaning given to them in KRS 77.005, the Clean Air Act, or by commonly accepted usage.

- 1.1 "Act" means the Clean Air Act, 42 USC 7401 *et seq.*
- 1.2 "Acute noncancer effect" means a biochemical change, functional impairment, or pathological lesion that is produced within a short period of time following an exposure and that affects the performance of the whole organism, or reduces the organism's ability to respond to additional environmental challenges.
- 1.3 "Affected facility" means a process or process equipment to which a regulation is applicable.
- 1.4 "Air contaminant" or "air pollutant" means smoke, charred paper, dust, soot, grime, carbon, noxious acids, fumes, gases, odors, or particulate matter, or any combination of these, that is emitted into or otherwise enters the outside air. These terms also include any precursors to the formation of an air contaminant or air pollutant.
- 1.5 "Air pollution control equipment" means equipment that may be required by law or regulation for the control of air pollution but is not vital to production of the normal product of the process or process equipment or to its normal operation.
- 1.6 "Alternative method" means any method of sampling and analyzing for an air pollutant that is not a reference method or an equivalent method but that has been demonstrated to the satisfaction of the U.S. Environmental Protection Agency (EPA) and the District to produce, in specific cases, results adequate for determining compliance.

- 1.7 "Ambient air" means that portion of the atmosphere, external to buildings, to which the general public has access. For the purpose of determining the concentration of an air contaminant that is or may be emitted by a stationary source, ambient air also includes the atmosphere, external to buildings, that is beyond the property line of that stationary source, regardless of whether the general public has access.
- 1.8 "Ambient air quality standard" means a numerical expression of the level of an air contaminant required to be achieved and maintained through the application of appropriate preventive or control measures. An "ambient air quality standard" consists of two parts:
- 1.8.1 A specified concentration for a particular air contaminant and
- 1.8.2 A time-averaging interval over which that concentration is measured.
- 1.9 "Annual mean" means an average determined on the basis of any consecutive 12-month interval.
- 1.10 "Asbestos" means the asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, amosite, anthophyllite, and actinolite-tremolite.
- 1.11 "Asbestos mill" means any process or process equipment engaged in converting, or in any intermediate step in converting, asbestos ore into commercial asbestos. Outside storage of asbestos materials is not considered a part of the asbestos mill.
- 1.12 "Asbestos material" means asbestos or any material containing asbestos.
- 1.13 "Asbestos tailings" means any solid waste that contains asbestos and is a product of asbestos mining or milling operations.
- 1.14 "Best available control technology" (BACT) means an emission limitation, including a visible emission standard, based on the maximum degree of reduction for each pollutant subject to regulation that would be emitted from any proposed new or modified process or process equipment that the District, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for that new or modified process or process equipment through the application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment, innovative fuel combustion techniques, and pollution prevention approaches, for elimination, reduction, or control of that pollutant. In no event shall the application of BACT result in emissions of any pollutant that would exceed the emissions

allowed by any applicable standard under Part 5, 6, or 7 of District regulations. If the District determines that technological or economic limitations on the application of measurement methodology to a particular process or process equipment would make the imposition of an emissions standard infeasible, a design, equipment, work practice, or operational standard, or combination of those approaches, may be prescribed instead.

- 1.15 "Board" means the Louisville Metro Air Pollution Control Board as provided for in KRS Chapter 77.
- 1.16 "Bypass" means the intentional diversion of air contaminants from air pollution control equipment or process equipment that normally reduces the emission of the air contaminants.
- 1.17 "Cabinet" means the Energy and Environment Cabinet of the Commonwealth of Kentucky as provided for in KRS Chapter 224.
- 1.18 "Commence" means that an owner or operator has obtained all necessary preconstruction approvals or permits and has either:
  - 1.18.1 Begun, or caused to begin, a continuous program of actual on-site construction or modification, to be completed within a reasonable time, or
  - 1.18.2 Entered into a binding agreement or a contractual obligation, that cannot be canceled or modified without substantial loss to the owner or operator, to undertake a continuous program of actual on-site construction or modification, to be completed within a reasonable time.
- 1.19 "Commercial asbestos" means any asbestos that is extracted from asbestos ore.
- 1.20 "Compliance plan and schedule" means a list of remedial measures including an enforceable sequence and timing of actions or operations leading to compliance with a limitation or standard by a specific date.
- 1.21 "Construction" means fabrication, erection, modification, or installation of an affected facility or any portion of an affected facility.
- 1.22 "Demolition" means the wrecking or taking out of any load-supporting structural member of a structure together with any related handling operations.
- 1.23 "District" means the Louisville Metro Air Pollution Control District as provided for in KRS Chapter 77.
- 1.24 "Division" means the Division for Air Quality (DAQ) of the Energy and Environment

Cabinet of the Commonwealth of Kentucky as provided for in KRS Chapter 224.

- 1.25 "Emission standard" means a requirement that is contained in a federal, state, or local law or regulation, District permit, or Board Order, or is otherwise legally enforceable that limits the quantity, rate, concentration, or opacity of the emission of an air contaminant on a continuous basis, including any requirement related to the operation or maintenance of a process or process equipment to assure continuous emission reduction, and any design, equipment, work practice, or operational standard.
- 1.26 "Equivalent method" means a method of sampling and analyzing for an air pollutant that has been demonstrated to the satisfaction of the EPA to have a consistent and quantitatively-known relationship to the reference method under specified conditions.
- 1.27 "Excess emissions" means emissions that exceed an applicable emission standard.
- 1.28 "Existing affected facility," except as otherwise specified under applicable regulations, means any affected facility that is in existence or has commenced construction before the effective date of the applicable emission standard and that has not been subsequently modified or reconstructed.
- 1.29 "Federally Enforceable District Origin Operating Permit" (FEDOOP) means a non-Title V operating permit issued by the District that contains a federally-enforceable permit condition, limit, or provision.
- 1.30 "Fixed capital cost" means the capital needed to provide all of the depreciable components.
- 1.31 "Fuel" means natural gas, petroleum, coal, wood, and any other form of solid, liquid, or gaseous matter consumed for the purpose of creating useful heat.
- 1.32 "Fugitive emissions" means those emissions that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.
- 1.33 "Hazardous air pollutant" (HAP) means any air pollutant listed in Regulation 5.14 *Hazardous Air Pollutants and Source Categories* pursuant to the Act §112(b), 42 USC 7412(b).
- 1.34 "Incineration" means the process of igniting and burning solid, semi-solid, liquid, or gaseous combustible or partially combustible wastes.
- 1.35 "Incinerator" means any furnace used in the process of burning waste for the purpose of reducing the volume of waste by removing combustible matter.

- 1.36 "Lowest achievable emission rate" (LAER) means, for any affected facility, that rate of emissions based on the more stringent of the following:
- 1.36.1 The most stringent emission limitation that is contained in the implementation plan of any State for that class or category of affected facility, unless the owner or operator of the proposed affected facility demonstrates that this limitation is not achievable, or
- 1.36.2 The most stringent emission limitation that is achieved in practice by that class or category of affected facility taking into consideration the pollutant that must be controlled. In no event shall the application of LAER permit a proposed affected facility to emit any pollutant in excess of the amount allowable under an applicable new source standard in Part 5, 6, or 7 of District regulations or 40 CFR Part 60, 61, or 63.
- 1.37 "Major source", except as specified in another regulation for use in that regulation, means any stationary source that emits, or has the potential to emit, 100 tons per year or more of any air pollutant subject to regulation under the Act, 10 tons or more of an individual HAP, or 25 tons per year or more of a combination of HAPs.
- 1.38 "Malfunction" means the sudden, unforeseen, and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner that causes, or is likely to cause, emissions that exceed an applicable emission standard, but not including a failure that is caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or equipment breakdown.
- 1.39 "Maximum achievable control technology" (MACT) means the maximum achievable control technology defined in the Act §112 (d), 42 USC 7412(d).
- 1.40 "Modification", except as specified in another regulation for use in that regulation, means any physical change in, or change in the method of operation of, an affected facility that increases the amount of any air pollutant (to which an emission standard applies) emitted by that affected facility or that results in the emission of any air pollutant (to which an emission standard applies) not previously emitted, except that:
- 1.40.1 Routine maintenance, repair, and replacement shall not be considered a physical change, and
- 1.40.2 A change in the method of operation, unless previously limited by permit conditions, shall not include:

- 1.40.2.1 An increase in the production rate, if the increase does not exceed the operating design capacity of the affected facility or of the air pollution control equipment installed on the affected facility,
- 1.40.2.2 An increase in the hours of operation when the increase does not result in a violation of any applicable emission standards,
- 1.40.2.3 Use of an alternative fuel or raw material if, prior to the date any standard under this regulation becomes applicable to that affected facility, the affected facility is designed to accommodate the alternative use,
- 1.40.2.4 Use of an alternative fuel or raw material by reason of an order, rule, or natural gas curtailment plan approved by the District, or
- 1.40.2.5 A change in ownership of the stationary source.
- 1.41 "New affected facility" means any affected facility the construction, modification, or reconstruction of which is commenced on or after the effective date of an applicable emission standard.
- 1.42 "Nitrogen oxides" means all oxides of nitrogen, except nitrous oxide, as measured by test methods specified by the District.
- 1.43 "Odor" means the property of an air contaminant that can be detected by the sense of smell.
- 1.44 "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.
- 1.45 "Open burning" means the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the outside air without passing through a stack, chimney, vent, or other functionally equivalent opening.
- 1.46 "Organic compound" or "organic material" means a chemical compound of carbon that has the same meaning as "volatile organic compound."
- 1.47 "Outside air" or "open air" means the air outside of buildings and structures.
- 1.48 "Owner or Operator" means any person who owns, leases, operates, controls, or supervises one or more affected facilities.
- 1.49 "Particulate asbestos material" means finely divided particles of asbestos material.
- 1.50 "Particulate matter" means any material, except uncombined water, that exists in a finely divided form as a liquid or a solid.

- 1.51 "PM<sub>10</sub>" means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method based on 40 CFR Part 50 Appendix J and designated in accordance with 40 CFR Part 53, or by an equivalent method designated in accordance with 40 CFR Part 53.
- 1.52 "PM<sub>2.5</sub>" means particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by a reference method based on 40 CFR Part 50 Appendix L and designated in accordance with 40 CFR Part 53, or by an equivalent method designated in accordance with 40 CFR Part 53.
- 1.53 "Person" means any individual, firm, copartnership, joint venture, association, corporation, social club, fraternal organization, estate, trust, receiver, syndicate, county, city, municipality, district (for air pollution control or other purpose), or other political subdivision, or any group or combination acting as a unit, and the plural as well as the singular unit.
- 1.54 "Pollution prevention" (P2) means the use of materials, processes, or practices that reduce or eliminate the creation of pollutants or wastes by the process. Pollution prevention includes practices that reduce the use of hazardous and nonhazardous materials, energy, water, or other resources as well as practices that protect natural resources through conservation or more efficient use.
- 1.55 "Potential hazardous emissions" means an air pollutant, exclusive of pollutants regulated under the Act Section 112(b), 42 USC 7412(b), to which no ambient air quality standard is applicable and that, in the judgment of the District, may cause, or contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness.
- 1.56 "Potential to emit" (PTE) means the maximum capacity of a stationary source or an affected facility to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source or affected facility to emit a pollutant, including air pollution control equipment and restrictions on the hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source or affected facility.

- 1.57 "Preventable upset condition" means the sudden failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner that causes, or is likely to cause, emissions that exceed an applicable emission standard that results entirely or in part from poor maintenance, careless operation, or any other preventable upset condition or equipment breakdown.
- 1.58 "Process" means an action or operation, or a series of actions or operations, from which the emission of an air contaminant may originate. Examples of a "process" include any of the following:
- 1.58.1 The physical change of a material,
  - 1.58.2 The chemical change of a material,
  - 1.58.3 The combustion of a fuel, refuse, or waste material,
  - 1.58.4 The storage of a material,
  - 1.58.5 The handling of a material, and
  - 1.58.6 The use of a material.
- 1.59 "Process equipment" means all equipment, devices, and auxiliary components, including control equipment and stacks, used in a process.
- 1.60 "Reactor" means a vat or vessel that may be jacketed to permit temperature control, designed to contain chemical reactions.
- 1.61 "Reasonably available control technology" (RACT) means devices, systems, process modifications, or other apparatus or techniques, including pollution prevention approaches, that are reasonably available taking into account the necessity of imposing those controls in order to attain and maintain a national ambient air quality standard and the social, environmental, and economic impact of those controls.
- 1.62 "Reconstruction" means the replacement of process equipment for an affected facility to the extent that the fixed capital cost of the new components exceeds 50% of the fixed capital cost of a comparable entirely new affected facility.
- 1.63 "Reference Method" means any method of sampling and analyzing for an air pollutant as prescribed in the following EPA regulations: Standards of Performance for New Stationary Sources (40 CFR part 60), National Emission Standards for Hazardous Air Pollutants (40 CFR part 61), National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR part 63), National Primary and Secondary Ambient Air

Quality Standards (40 CFR part 50), and Requirements for Preparation, Adoption, and Submittal of Implementation Plans (40 CFR part 51).

- 1.64 "Regulation" means a rule or order adopted by the Board pursuant to KRS Chapter 77 for the control or abatement of air contaminants within its jurisdiction or for the administration of the District.
- 1.65 "Run" means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.
- 1.66 "Sludge" means solid or semi-solid material produced by a treatment plant that processes municipal or industrial waste waters.
- 1.67 "Sludge dryer" means a device used to reduce the moisture content of a sludge by heating to temperatures above 65 °C directly with combustion gases.
- 1.68 "Stack or chimney" means a flue, conduit, or duct arranged to conduct a gas stream to the outside air.
- 1.69 "Standard conditions" means:
- 1.69.1 For source measurements, 20 °C and a pressure of 760 mm Hg, and
- 1.69.2 For the purpose of air quality determinations, 25 °C and a reference pressure of 760 mm Hg.
- 1.70 "Stationary source" means all of the air pollutant-emitting activities, including all processes and process equipment, that are located on one or more contiguous or adjacent properties and are under the control of the same person or persons under common control. A property shall be considered contiguous if separated by only a public thoroughfare, stream, or other right-of-way. If a transmission and fuel delivery right-of-way or a strip of land that serves no other principal purpose than as a transportation or materials handling link connecting two or more otherwise separate stationary sources, then the connected stationary sources shall be considered as separate stationary sources.
- 1.71 "Startup" means the setting in operation of an affected facility for any purpose.
- 1.72 "Upset condition" means the sudden failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner that causes, or is likely to cause, emissions that exceed an applicable emission standard and that results entirely or in part from either a malfunction or a preventable upset condition.

- 1.73 "Uncombined water" means water that is either in a gaseous, liquid, or solid state and that is not bound to a compound by internal molecular forces.
- 1.74 "Volatile organic compound" (VOC) means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, that participates in atmospheric photochemical reactions. The following organic compounds have been determined by the EPA to have negligible photochemical reactivity and are also excluded:
- 1.74.1 Methane,
  - 1.74.2 Ethane,
  - 1.74.3 Methylene chloride (dichloromethane),
  - 1.74.4 1,1,1-trichloroethane (methyl chloroform),
  - 1.74.5 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113),
  - 1.74.6 Trichlorofluoromethane (CFC-11),
  - 1.74.7 Dichlorodifluoromethane (CFC-12),
  - 1.74.8 Chlorodifluoromethane (HCFC-22),
  - 1.74.9 Trifluoromethane (HFC-23),
  - 1.74.10 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114),
  - 1.74.11 Chloropentafluoroethane (CFC-115),
  - 1.74.12 1,1,1-trifluoro-2,2-dichloroethane (HCFC-123),
  - 1.74.13 1,1,1,2-tetrafluoroethane (HFC-134a),
  - 1.74.14 1,1-dichloro-1-fluoroethane (HCFC-141b),
  - 1.74.15 1-chloro-1,1-difluoroethane (HCFC-142b),
  - 1.74.16 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124),
  - 1.74.17 Pentafluoroethane (HFC-125),
  - 1.74.18 1,1,2,2-tetrafluoroethane (HFC-134),
  - 1.74.19 1,1,1-trifluoroethane (HFC-143a),
  - 1.74.20 1,1-difluoroethane (HFC-152a),
  - 1.74.21 Parachlorobenzotrifluoride (PCBTF),
  - 1.74.22 Cyclic, branched, or linear completely methylated siloxanes,
  - 1.74.23 Acetone,
  - 1.74.24 Perchloroethylene (tetrachloroethylene),

- 1.74.25 3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca),
- 1.74.26 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb),
- 1.74.27 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC-43-10mee),
- 1.74.28 Difluoromethane (HFC-32),
- 1.74.29 Ethylfluoride (HFC-161),
- 1.74.30 1,1,1,3,3,3-hexafluoropropane (HFC-236fa),
- 1.74.31 1,1,2,2,3-pentafluoropropane (HFC-245ca),
- 1.74.32 1,1,2,3,3-pentafluoropropane (HFC-245ea),
- 1.74.33 1,1,1,2,3-pentafluoropropane (HFC-245eb),
- 1.74.34 1,1,1,3,3-pentafluoropropane (HFC-245fa),
- 1.74.35 1,1,1,2,3,3-hexafluoropropane (HFC-236ea),
- 1.74.36 1,1,1,3,3-pentafluorobutane (HFC-365mfc),
- 1.74.37 Chlorofluoromethane (HCFC-31),
- 1.747.38 1-chloro-1-fluoroethane (HCFC-151a),
- 1.74.39 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a),
- 1.74.40 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane (C<sub>4</sub>F<sub>9</sub>OCH<sub>3</sub>) or HFE-7100,
- 1.74.41 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane[(CF<sub>3</sub>)<sub>2</sub>CFCF<sub>2</sub>OCH<sub>3</sub>],
- 1.74.42 1-ethoxy-1,1,2,2,3,3,3,4,4,4-nonafluorobutane (C<sub>4</sub>F<sub>9</sub>OC<sub>2</sub>H<sub>5</sub>) or HFE-7200,
- 1.74.43 2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane [(CF<sub>3</sub>)<sub>2</sub>CFCF<sub>2</sub>OC<sub>2</sub>H<sub>5</sub>],
- 1.74.44 Perfluorocarbon compounds that fall into the following classes:
- 1.74.44.1 Cyclic, branched, or linear, completely fluorinated alkanes,
- 1.74.44.2 Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations,
- 1.74.44.3 Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations, and
- 1.74.44.4 Sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine,
- 1.74.45 Methyl acetate,
- 1.74.46 1,1,1,2,2,3,3-heptafluoro-3-methoxy-propane (HFE-7000) or (n-C<sub>3</sub>F<sub>7</sub>OCH<sub>3</sub>),
- 1.74.47 3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl) hexane (HFE-7500),

- 1.74.48 1,1,1,2,3,3,3-heptafluoropropane (HFC 227ea),
- 1.74.49 Methyl formate  $\text{HCOOCH}_3$ ,
- 1.74.50 t-butyl acetate, for purposes of VOC emissions limitations or VOC content requirements, but is not excluded for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling, and inventory requirements that apply to VOC and shall be uniquely identified in emission reports,
- 1.74.51 1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethyl-pentane (HFE-7300) or  $\text{C}_2\text{F}_5\text{CF}(\text{OCH}_3)\text{CF}(\text{CF}_3)_2$
- 1.74.52 Dimethyl carbonate, and
- 1.74.53 Propylene carbonate.
- 1.75 "Welfare," when referring to effects on welfare, includes, but is not limited to, effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants.
- 1.76 "Year" means a calendar year.

Adopted v1/4-19-72, effective 4-19-72; amended v2/6-13-79, v3/11-16-83, v4/4-20-88, v5/5-15-91, v6/3-17-93, v7/6-16-93, v8/9-25-96, v9/11-19-97, v10/12-19-01, v11/6-21-05, effective 7-1-05; v12/ 6-15-11