

REGULATION 1.02 Definitions

Air Pollution Control District of Jefferson County Jefferson County, Kentucky

Relates To: KRS Chapter 77 Air Pollution Control

Pursuant To: KRS Chapter 77 Air Pollution Control

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

SECTION 1 Definitions

The following terms shall have the meaning given them below except as otherwise specified in these regulations. All terms not defined below shall have the meaning given them elsewhere in these regulations, KRS 77.005, or by commonly accepted usage.

- 1.1 "Act" means the Clean Air Act of 1963 as amended by the Clean Air Act Amendments of 1990.
- 1.2 "Affected facility" means a piece of equipment or an operation to which a regulation is applicable or which emits or may emit air contaminants.
- 1.3 "Air contaminant or air pollutant" includes smoke, charred paper, dust, soot, grime, carbon, noxious acids, fumes, gases, odors, or particulate matter, or any combination thereof.
- 1.4 "Air pollution control equipment" is equipment which 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 source or to its normal operation.
- 1.5 "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 satisfaction of EPA and the District to produce, in specific cases, results adequate for determining compliance.
- 1.6 "Ambient air" means that portion of the atmosphere external to buildings.
- 1.7 "Ambient air quality standard" means the numerical expression of a goal to be achieved and maintained through the application of appropriate preventive or control measures. It consists of two parts:
 - 1.7.1 A specified concentration level for a particular air contaminant and
 - 1.7.2 The time averaging interval over which that concentration level is measured.
- 1.8 "Annual mean" means an average determined on the basis of any consecutive 12 month interval.
- 1.9 "Annual potential" means emissions based on the maximum annual rated capacity of the source, unless the source is subject to enforceable permit conditions which limit the operating rate or hours of operation, or both.

- 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 facility 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 "Beryllium" means the element beryllium where weights or concentrations apply to beryllium only, excluding the weight or concentration of any associated elements.
- 1.15 "Beryllium alloy" means any metal to which beryllium has been added in order to increase its beryllium content and that contains more than 0.1% beryllium by weight.
- 1.16 "Beryllium ore" means any naturally occurring material mined or gathered for its beryllium content.
- 1.17 "Beryllium propellant" means any propellant incorporating beryllium.
- 1.18 "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 stationary source or modification that the District (on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs) determines is achievable for such source or modification 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 Regulation 5, 6 or 7.
- 1.19 "Board" means the Air Pollution Control Board of Jefferson County as provided for in KRS Chapter 77.
- 1.20 "Bulk resin" means a resin which is produced by a polymerization process in which no water is used.
- 1.21 "Cabinet" means the Natural Resources and Environmental Protection Cabinet of the Commonwealth of Kentucky as provided for in KRS Chapter 224.
- 1.22 "Ceramic plant" means a manufacturing plant producing ceramic items.
- 1.23 "Commence" means that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a binding agreement or a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.
- 1.24 "Commercial asbestos" means any asbestos that is extracted from asbestos ore.
- 1.25 "Compliance schedule" means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with any limitation or standard.

- 1.26 "Construction" means fabrication, erection, modification, or installation of an affected facility or any portion of an affected facility.
- 1.27 "Demolition" means the wrecking or taking out of any load- supporting structural member of a facility together with any related handling operations.
- 1.28 "Dispersion resin" means a resin manufactured in such a way as to form fluid dispersions when dispersed in a plasticizer or plasticizer/diluent mixtures.
- 1.29 "Denuder" means a container which is part of a mercury chlor-alkali cell and in which water and alkali metal amalgam are converted to alkali metal hydroxide, mercury, and hydrogen gas in a short-circuited, electrolytic reaction.
- 1.30 "Department" means the Department of Planning and Environmental Management of Jefferson County Government.
- 1.31 "District" means the Air Pollution Control District of Jefferson County as provided for in KRS Chapter 77.
- 1.32 "Division" means the Division for Air Quality of the Natural Resources and Environmental Protection Cabinet of the Commonwealth of Kentucky as provided for in KRS Chapter 224.
- 1.33 "Eight hour average" means an average determined on the basis of any consecutive eight hour interval.
- 1.34 "Emission standard" means a legally enforceable regulation either setting forth a numerical limit on air contaminants emitted into the ambient air, or prescribing equipment or operating specifications for such control.
- 1.35 "Equivalent method" means any method of sampling and analyzing for an air pollutant which has been demonstrated to the satisfaction of EPA to have a consistent and quantitatively known relationship to the reference method under specified conditions.
- 1.36 "Ethylene dichloride plant" means any plant which produces ethylene dichloride by the reaction of oxygen and hydrogen chloride with ethylene.
- 1.37 "Ethylene dichloride purification" means any part of the process of ethylene dichloride production that follows ethylene dichloride formation and in which finished ethylene dichloride is produced.
- 1.38 "Existing affected facility", except as otherwise specified under applicable regulations, means any affected facility that is in being or has commenced construction before the effective date of the applicable emission standard and that has not been subsequently modified or reconstructed.
- 1.39 "Federally enforceable District origin operating permit" (FEDOOP) means a District origin operating permit that contains a federally enforceable permit condition, limit, or provision.
- 1.40 "Fixed capital cost" means the capital needed to provide all of the depreciable components.
- 1.41 "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.
- 1.42 "Fugitive emissions" means those emissions that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

- 1.43 "Fugitive particulate matter" means any particulate matter that is emitted into the open air from points other than a stack outlet.
- 1.44 "Fugitive soil" means particulate matter composed of soil that is uncontaminated by pollutants resulting from industrial activity. Fugitive soil may include emissions from haul roads, wind erosion of exposed soil surfaces and soil storage piles, and other activities in which soil is either removed, stored, transported, or redistributed.
- 1.45 "Generally Achievable Control Technology" (GACT) means the generally achievable control technology defined in the Act.
- 1.46 "Hazardous air pollutant" (HAP) means any air pollutant listed in the Act Section 112(b).
- 1.47 "Hydrogen gas stream" means a hydrogen stream formed in the chlor-alkali cell denuder.
- 1.48 "Incineration" means the process of igniting and burning solid, semi-solid, liquid, or gaseous combustible or partially combustible wastes.
- 1.49 "Incinerator" means any furnace used in the process of burning waste for the purpose of reducing the volume of waste by removing combustible matter.
- 1.50 "Latex resin" means a resin that is produced by a polymerization process that initiates from free radical catalyst sites and is sold undried.
- 1.51 "Lowest achievable emission rate" (LAER) means, for any source, that rate of emissions based on the more stringent of the following:
- 1.51.1 The most stringent emission limitation that is contained in the implementation plan of any State for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable, or
- 1.51.2 The most stringent emission limitation that is achieved in practice by such class or category of source taking into consideration the pollutant that must be controlled. The lowest achievable emission rate shall not exceed the amount allowable under applicable new source standards of performance.
- 1.52 "Major modification" means the applicable change as defined in Regulations 2.04 and 2.05.
- 1.53 "Major source" means any source that has the potential to emit 100 tons per year or more of particulate matter, sulfur oxides, nitrogen oxides, volatile organic compounds, carbon monoxide, or lead, 10 tons of an individual hazardous air pollutant (HAP), or 25 tons per year of a combination of HAPs.
- 1.54 "Malfunction" means any 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, but not including failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or equipment breakdown.
- 1.55 "Maximum Achievable Control Technology" (MACT) means the maximum achievable control technology defined in the Act.
- 1.56 "Mercury" means the element mercury, excluding any associated elements, and includes mercury in particulates, vapors, aerosols, and compounds.

- 1.57 "Mercury chlor-alkali cell" means a device that is basically composed of an electrolyzer section and a denuder (decomposer) section and utilizes mercury to produce chlorine gas, hydrogen gas, and alkali metal hydroxide.
- 1.58 "Mercury chlor-alkali electrolyzer" means an electrolytic device that is part of a mercury chlor-alkali cell and utilizes a flowing mercury cathode to produce chlorine gas and alkali metal amalgam.
- 1.59 "Mercury ore" means a mineral mined specifically for its mercury content.
- 1.60 "Mercury ore processing facility" means a facility processing mercury ore to obtain mercury.
- 1.61 "Modification" 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 such facility or that results in the emission of any air pollutant (to which an emission standard applies) not previously emitted, except that:
 - 1.61.1 Routine maintenance, repair, and replacement shall not be considered physical changes and
 - 1.61.2 A change in the method of operation, unless previously limited by permit conditions, shall not include:
 - 1.61.2.1 An increase in the production rate, if such increase does not exceed the operating design capacity of the affected facility or of the air pollution control equipment installed on the affected facility,
 - 1.61.2.2 An increase in the hours of operation when the increase does not result in a violation of any applicable emission standards,
 - 1.61.2.3 Use of an alternative fuel or raw material if, prior to the date any standard under this regulation becomes applicable to such facility, the affected facility is designed to accommodate such alternative use,
 - 1.61.2.4 Use of an alternative fuel or raw material by reason of an order, rule, or natural gas curtailment plan as approved by the District, or
 - 1.61.2.5 Change in ownership of the source.
- 1.62 "New affected facility" means any affected facility the construction, modification, or reconstruction of which is commenced on or after the effective date of any applicable regulation.
- 1.63 "Nitrogen oxides" means all oxides of nitrogen, except nitrous oxide, as measured by test methods specified by the District.
- 1.64 "Odor" means the property of an air contaminant that can be detected by the sense of smell.
- 1.65 "One week average" means an average determined on the basis of any consecutive seven day interval.
- 1.66 "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

- 1.67 "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 ambient air without passing through a stack or chimney.
- 1.68 "Organic compound" or "Organic material" means a chemical compound of carbon that has the same meaning as "Volatile organic compound".
- 1.69 "Outside air" or "open air" means the air outside buildings and structures.
- 1.70 "Owner or Operator" means any person who owns, leases, operates, controls, or supervises one or more affected facilities.
- 1.71 "Particulate asbestos material" means finely divided particles of asbestos material.
- 1.72 "Particulate matter" means any material, except uncombined water, that exists in a finely divided form as a liquid or a solid.
- 1.73 "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 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.
- 1.74 "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 40 CFR Part 1, or by a test method specified in the approved SIP.
- 1.75 "Person" means any individual, firm, copartnership, joint adventure, association, corporation, social club, fraternal organization, estate, trust, receiver, syndicate, any county, city, municipality, district (for air pollution control or otherwise), or other political subdivision, or any group or combination acting as a unit, and the plural as well as the singular unit.
- 1.76 "Potential Hazardous Emissions" means an air pollutant, exclusive of pollutants regulated under the Act Section 112(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.
- 1.77 "Potential to emit" of an affected source means the capability of the source to emit a pollutant while operating at maximum capacity with all air pollution control equipment operating properly. The maximum capacity of a source may be limited by enforceable permit conditions that limit the operating rate or hours of operation, or both.
- 1.78 "Propellant" means a fuel and oxidizer physically or chemically combined that undergo combustion to provide rocket propulsion.
- 1.79 "Propellant plant" means any facility engaged in the mixing, casting, or machining of propellants.
- 1.80 "Reactor" means any vessel in which monomer is partially or totally polymerized into a polymer.
- 1.81 "Reasonably Available Control Technology" (RACT) means the reasonably available control technology defined in the Act.

- 1.82 "Reconstruction" means that the fixed capital cost of the new components of the affected facility exceeds 50% of the fixed capital cost of a comparable entirely new facility or source based on the estimated life of the facility after replacement compared to an entirely new facility and the extent to which the new components contribute to the emissions.
- 1.83 "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 Pollutants (40 CFR Part 61); and National Primary and Secondary Ambient Air Quality Standards (40 CFR Part 50).
- 1.84 "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.
- 1.85 "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.
- 1.86 "Sludge" means solid or semi-solid material produced by a treatment plant that processes municipal or industrial waste waters.
- 1.87 "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.
- 1.88 "Source" means one or more affected facilities contained within a given contiguous property line. The property shall be considered contiguous if separated only by a public thoroughfare, stream, or other right of way.
- 1.89 "Stack or Chimney" means any flue, conduit, or duct arranged to conduct emissions to the atmosphere.
- 1.90 "Standard conditions":
- 1.90.1 For source measurements means 20 °C and a pressure of 760 mm Hg and
- 1.90.2 For the purpose of air quality determinations means 25 °C and a reference pressure of 760 mm Hg.
- 1.91 "Standard operating procedure" means a formal written procedure officially adopted by the plant owner or operator and available on a routine basis to those persons responsible for carrying out the procedure.
- 1.92 "Startup" means the setting in operation of an affected facility for any purpose.
- 1.93 "Three month average" means an average determined on the basis of any consecutive three month interval.
- 1.94 "Toxic Air Pollutant" means a substance listed in either 401 KAR 63:021 or 401 KAR 63:022.
- 1.95 "Twelve hour average" means an average determined on the basis of any consecutive 12 hour interval.

- 1.96 "Twenty-four hour average" means an average determined on the basis of any consecutive 24 hour interval.
- 1.97 "Uncombined water" means water that is either in a gaseous, liquid, or solid state and which is not bound to a compound by internal molecular forces.
- 1.98 "Vinyl chloride plant" means any plant that produces vinyl chloride by any process.
- 1.99 "Vinyl chloride purification" means any part of the process of vinyl chloride production that follows vinyl chloride formation and in which finished vinyl chloride is produced.
- 1.100 "Visible emission" means an emission of greater than 5% opacity.
- 1.101 "Volatile organic compound" (VOC) means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions including:
- 1.101.1 Any such organic compounds other than the following that have been determined to have negligible photochemical reactivity: Methane; ethane; methylene chloride (dichloromethane); 1,1,1-trichloroethane (methyl chloroform); 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113); trichlorofluoromethane (CFC-11); dichlorodifluoromethane (CFC-12); chlorodifluoromethane (HCFC-22); trifluoromethane (HFC-23); 1,2-dichloro - 1,1,2,2- tetrafluoroethane (CFC-114); chloropentafluoroethane (CFC- 115); 1,1,1-trifluoro 2,2-dichloroethane (HCFC-123); 1,1,1,2-tetrafluoroethane (HFC-134a); 1,1-dichloro - 1- fluoroethane (HCFC-141b); 1-chloro - 1,1-difluoroethane (HCFC-142b); 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124); pentafluoroethane (HFC-125); 1,1,2,2-tetrafluoroethane (HFC-134); 1,1,1-trifluoroethane (HFC-143a); 1,1-difluoroethane (HFC-152a); parachlorobenzotrifluoride (PCBTF); cyclic, branched, or linear completely methylated siloxanes; acetone; perchloroethylene (tetrachloroethylene); 3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca); 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb); 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee); difluoromethane (HFC-32); ethylfluoride (HFC-161); 1,1,1,3,3,3-hexafluoropropane (HFC-236fa); 1,1,2,2,3-pentafluoropropane (HFC-245ca); 1,1,2,3,3-pentafluoropropane (HFC-245ea); 1,1,1,2,3-pentafluoropropane (HFC-245eb); 1,1,1,3,3-pentafluoropropane (HFC-245fa); 1,1,1,2,3,3-hexafluoropropane (HFC-236ea); 1,1,1,3,3-pentafluorobutane (HFC-365mfc); chlorofluoromethane (HCFC-31); 1-chloro-1-fluoroethane (HCFC-151a); 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a); 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane ($C_4F_9OCH_3$); 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane ($((CF_3)_2CFCF_2OCH_3)$); 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane ($C_4F_9OC_2H_5$); 2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ($((CF_3)_2CFCF_2OC_2H_5)$); and perfluorocarbon compounds which fall into these classes:
- 1.101.1.1 Cyclic, branched, or linear, completely fluorinated alkanes,
- 1.101.1.2 Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations,

- 1.101.1.3 Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations, and
- 1.101.1.4 Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
- 1.101.2 For purposes of determining compliance with emissions limits, VOC will be measured by the approved test methods found in Regulation 1.04. Where such method also measures compounds with negligible photochemical reactivity, these negligibly-reactive compounds may be excluded as VOC if the amount of such compounds is accurately quantified, and such exclusion is approved by the District.
- 1.101.3 As a precondition to excluding these compounds as VOC or at any time thereafter, the District may require an owner or operator to provide monitoring or testing methods and results demonstrating to the satisfaction of the District, the amount of negligibly-reactive compounds in the source's emissions.
- 1.102 "Year" means a calendar year.

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