

13.0 DEFINITIONS

The following terms shall, unless the context clearly indicates otherwise, have the following meanings:

- 13.1** "Air Contaminant" shall mean particulate matter, dust, fumes, gas, mist, smoke, vapor, or odor; or any combination thereof.
- 13.2** "Air Contaminant Source" shall mean any and all sources of emission of air contaminants into the outdoor atmosphere, whether privately or publicly owned or operated, including stationary and mobile sources. Without limiting the generality of the foregoing, this term includes all types of business, commercial, and industrial plants, works, shops, and stores, and heating and power plants, stations, buildings, and other structures of all types, including 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, and refuse dumps, and salvage operations.
- 13.3** "Air Curtain Destructor" means a unit consisting of a combustion chamber pit and an air blower designed to establish a curtain of high velocity air above the fire burning in the pit so that the products of combustion must be forced up through the curtain before they can reach the outside air.
- 13.4** "Air Pollution" shall mean 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, or tend to be injurious to human health and welfare, plant or animal life, or to property, or which unreasonably interferes with the enjoyment of life and property or the conduct of business.
- 13.5** "Ambient Air" shall mean that portion of the atmosphere, external to buildings.
- 13.6** "Best Available Control Technology" means 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 Director, 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 Knox County Air Pollution Control Regulations. If the Director determines that technological or economic 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 or 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.

- 13.7** "Board" shall mean the Air Pollution Control Board of Knox County unless the context clearly indicates otherwise.
- 13.8** "Commenced" shall mean that an owner or operator has begun, or caused to begin a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or entered into a binding obligation, which cannot be cancelled or modified without substantial loss to the owner or operator.
- 13.9** "Construction" shall mean fabrication, erection, installation, or modification of an emissions unit.
- 13.10** "Continuous Monitoring" shall mean the sampling and analysis of air contaminants in a continuous or timed sequence, using techniques which will adequately reflect actual emission levels or concentrations on a continuous basis.
- 13.11** "Department" shall mean the Department of Air Pollution Control of Knox County.
- 13.12** "Director" shall mean the Director of the Department of Air Pollution Control of Knox County.
- 13.13** "Dust" shall mean solid particulate matter released into or carried into the air by natural forces, by any fuel-burning, combustion, process equipment, or device, construction work, mechanical, or industrial processes.
- 13.14** "Emissions" shall mean the release of air contaminants into the outdoor atmosphere.
- 13.15** "Equivalent Method" shall mean any method of monitoring, sampling, and analyzing for an air contaminant which can be demonstrated to the Director's satisfaction to have a consistent relationship to the reference method.
- 13.16** "Existing source" shall mean
- A. Any source which was in being during any portion of the time period from October 1, 1969, up to and including July 1, 1972.
 - B. Any source constructed and operated under the regulation which became effective October 1, 1969, may be defined as an existing source only until June 30, 1975.
- 13.17** "Facility" shall mean any building, structure, installation, activity, or combination thereof which contains one or more stationary sources of air contaminants.
- 13.18** "Fuel-Burning Equipment" shall mean 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.

- 13.19** "Fugitive Dust" shall mean any visible emission, other than water droplets, issuing from any source other than through a stack.
- 13.20** "Hand-Fired, Fuel-Burning Equipment" shall mean fuel-burning equipment in which fossil fuel is manually introduced into the combustion chamber or onto the fire.
- 13.21** "Hazardous Air Contaminant" shall mean 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 Director.
- 13.22** "Incinerator" shall mean any equipment, device, or contrivance, or combustion device specifically designed for destruction by burning of solid, semi-solid, liquid, or gaseous combustible waste; and from which the solid residues contain little or no combustible material.
- 13.23** "Legally Enforceable" shall mean all limitations and conditions which are enforceable by the Knox County Air Pollution Control Department any any permit requirements established pursuant to the Knox County Air Pollution Control Regulations.
- 13.24** "Lowest Achievable Emission Rate" (also denoted as LAER) shall mean, for a source, that rate of emissions which reflects:
1. The most stringent emission limitation which is achieved in practice by such class or category of sources.
 2. In no event shall a new or modified source emit any pollutant in excess of the amount allowable under applicable rules of Regulation 40.0.
- 13.25** "Major Stationary Source" shall mean a stationary source which has the potential to emit 100 tons/year or more of any pollutant regulated under the Clean Air Act.
- 13.26** "Malfunction" shall mean 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 malfunction.
- 13.27** "Mechanical Fuel-Burning Equipment" shall mean fuel-burning equipment incorporating means by which fuel is mechanically introduced into the combustion chamber.
- 13.28** "Modification" shall mean 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:
 - (a) 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;
 - (b) An increase in hours of operation if such increase does not exceed the operating hours stipulated as a permit condition of the source;
 - (c) The use of an alternative fuel if the source is designed to accomodate such alternative fuel;
 - (d) Required alterations to equipment for the use of an alternative fuel or raw mwterial by reason of an odor 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. The burden of proof establishing that a change is expected under parts 1 and 2 is on the owner or operator. The Director shall rule on whether or not a reported change is expected in timely fashion. Further expansions or restrictions of the definition may be listed in specific chapters or rule.
4. "Major Modification" is defined in Section 45.0 and shall be overriding for the purposes of that Section.

13.29 "Multiple Chamber Incinerator" shall mean an incinerator consisting of three or more refractory lined combustion furnaces in a series physically separated by refractory walls interconnected by gas passage ports or ducts and employing adequate design parameters necessary for maximum combustion of the material to be burned.

13.30 "New Source" shall mean any source which results from equipment that is constructed after the effective date of these regulations.

13.31 "New Source Performance Standard" shall mean a standard for the emission for an air contaminant promulgated by the Administrator of the Environmental Protection Agency and published in the Federal Register.

13.32 "Non-Process Emissions" shall mean all emissions that are not defined in Section 13.40.

13.33 "Opacity" shall mean that property of a substance tending to obscure vision and is measured in terms of percent obscuration. As used in these regulations, it does not include obscuration of vision due to uncombined water droplets. The percentage opacity of a plume is numerically equal to (20) twenty times the Ringelmann number for a plume of black smoke having equivalent capacity of obscuration.

- 13.34** "Odor" shall mean that property of material that affects the sense of smell.
- 13.35** "Open Burning" shall mean the unconfined burning of combustible material where no equipment has been provided or used for the control of air for combustion.
- 13.36** "Owner or Operator" shall mean any person who owns, leases, controls, operates, or supervises a facility, existing source, new source, or control device.
- 13.37** "Particulate Matter" shall mean any material except uncombined water that exists in a finely divided form as a liquid or a solid at standard conditions.
- 13.38** "Person" shall mean any individual, owner, operator, firm, partnership, co-partnership, company, corporation, association, joint stock company, trust, State, political subdivision, or any other legal entity, or their legal representative, agent, or assigns.
- 13.39** "Potential to Emit" shall mean the maximum capacity of a stationary source to emit a pollutant under its physical or operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours or operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is legally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.
- 13.40** "Process Emissions" shall mean any emission of air contaminants to the outdoor atmosphere other than that from fuel-burning equipment, an incinerator, or open burning.
- 13.41** "Process Emission Source" shall mean 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.
- 13.42** "Process Weight" shall mean the total weight of all materials introduced into any process emission source that may cause any emission of air contaminants into the outdoor atmosphere. Solid fuels charged are considered as part of the process weight, but liquid and gaseous fuels and combustion-air are not.
- 13.43** "Process Weight Rate" shall mean a rate established as follows:
- A. 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.
 - B. For cyclical or batch operations, it is the total process weight for a period which covers a complete or integral number of cycles, divided by the hours of actual process operation during such period.
 - C. Where the nature of any process or operation or the design of any

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.

- 13.44** "Reference Method" shall mean a method of monitoring, sampling, and analyzing for air contaminants as described in these regulations.
- 13.45** "Refuse" shall mean the inclusive term for solid waste products which are composed wholly or partly of such materials as garbage, sweepings, cleanings, trash, rubbish, litter; industrial solid, or domestic solid waste; trees or shrub trimmings; grass clippings; brick, plaster, or other waste resulting from the demolition, alteration, or construction of buildings or structures; accumulated waste material, cans, containers, tires, junk, or other substances.
- 13.46** "Ringelmann Chart" shall mean the chart published and described in the U.S. Bureau of Mines Information Circular No. 8333.
- 13.47** "Salvage Operation" shall mean any business, trade, or industry engaged in whole or in part in reclaiming one or more items of value.
- 13.48** "Smoke" shall mean gasborne 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.
- 13.49** "Source" shall mean any property, real or personal, which emits or may emit air contaminants into the outdoor atmosphere.
- 13.50** "Stack" shall mean any chimney, flue, duct, conduit, exhaust, vent, or opening of any kind whatsoever capable of, or used for, the emission of air contaminants.
- 13.51** "Standard Condition" unless otherwise specified shall mean a dry gas temperature of 70°F and a gas pressure of 14.7 pounds per square inch absolute.
- 13.52** "Standby Unit" shall mean any equipment permitted for use when the primary equipment is inoperative due to malfunction.
- 13.53** "Stationary Source" shall mean any building, structure, facility, or installation which emits or may emit any air contaminant.
- 13.54** "Suspended Particulates" shall mean particulate matter which may tend to remain suspended in air for an appreciable period of time.
- 13.55** The following abbreviations shall, unless the context clearly indicates otherwise, have the following meanings:
- a. ASTM - American Society for Testing and Materials
 - b. B.T.U. - British Thermal Unit
 - c. °C - Degrees Centigrade
 - d. cal - calorie

- e. CO - Carbon monoxide
- f. CO₂ - 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. H₂S - Hydrogen sulfide
- m. H₂SO₄ - 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. NO₂ - Nitrogen dioxide
- w. NO_x - Nitrogen oxides
- x. ppb - Parts per billion
- y. ppm - Parts per million
- z. psia - Pounds per square inch absolute
- aa. sec - Second
- bb. SO₂- Sulfur dioxide
- cc. ug - Microgram

13.56 "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, Federal Register, July 1, 1987, Volume 52, No. 126, pp 24664-24669 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.

13.57 "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.

13.58 "Total Suspended Particulate" means particulate matter as measured by the method described in Appendix B, 40 CFR 50.

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