Ohio Administrative Code

Rule 3745-110-01 Definitions.

Effective: August 1, 2025

Except as otherwise provided in this rule, the definitions in rule 3745-15-01 of the Administrative Code apply to this chapter. As used in this chapter:

(A)

(1) "Affected facility" means any facility that meets the applicability requirements in rule 3745-110-02 of the Administrative Code.

(2) "Affected source" means any source which is located at any affected facility and is not exempt under paragraph (K) of rule 3745-110-03 of the Administrative Code.

(3) "Auxiliary boiler" means either a boiler that produces steam and operates at a capacity factor of less than ten per cent or a boiler at a nuclear electrical generating facility that produces steam for the facility during either emergency periods or atypical extended periods of nuclear plant outage.

(B)

(1) "Black start unit" means any electric generating unit operated only in the event of a complete loss of facility power to test reliability, or for maintenance.

(2) "British thermal unit" or "Btu" means the amount of heat needed to raise one pound of water one degree Fahrenheit.

(C)

(1) "Capacity factor" means either the ratio of gross actual output to the gross rated output or the ratio of actual heat input to potential heat input for the calendar year, expressed as a percentage.

(2) "Cell burner" means burner cells that consist of two or three circular burners combined into a vertically oriented assembly that creates a compact, intense flame.

(3) "Coal" means all solid fuels classified as anthracite, bituminous, sub-bituminous or lignite, as defined by ASTM D388, "Standard Classification for Coals by Rank."

(4) "Cyclone-fired boiler" means a boiler that combusts fuel in a horizontal water-cooled cylinder before releasing the combustion gases into the boiler.

(D)

(1) "Diesel fuel" means a low sulfur fuel oil of grades 1-D or 2-D, as defined by ASTM D975, "Standard Specification for Diesel Fuel Oils."

(2) "Distillate oil" means fuel oil that complies with the specifications for fuel oil number one or two, as defined by ASTM D396, "Standard Specification for Fuel Oils."

(3) "Dry bottom" means a boiler design in which the coal-fired unit is equipped with an ash disposal hopper bottom with sufficient cooling surface so that the ash particles impinging on the furnace walls or hopper bottom can be removed in a dry state.

(4) "Dual fuel" means a mixture of diesel fuel or distillate oil and gaseous fuels.

(E) "Engine testing operation" means the activities, or the apparatus used in conducting testing of an internal combustion engine for the purpose of quality assurance/quality control in the manufacturing process of the engine, or for evaluating the pollutant emissions emitted by the engine.

(F) [Reserved.]

(G) "Gaseous fuels" means natural gas, blast furnace gas, coke oven gas or refinery fuel gas.

(H) [Reserved.]

(I)

(1) "Industrial boiler" means a steam generating unit that generates steam to supply power or heat to an industrial, institutional, or commercial operation. This term does not include boilers that serve electrical generating units and cogeneration facilities.

(2) "Internal combustion engine" means any engine in which power, produced by heat and/or pressure developed in the engine cylinder by burning a mixture of air and fuel (including diesel fuel), is subsequently converted to mechanical work by means of one or more pistons.

(J) [Reserved.]

(K) [Reserved.]

(L)

(1) "Lb per mmBtu" or "lb/mmBtu" means pound per million British thermal units.

(2) "Large boiler" means an industrial boiler with a maximum heat input capacity greater than one hundred mmBtu/hr and equal to or less than two hundred fifty mmBtu/hr.

(3) "Lean burn engine" means an internal combustion engine where the amount of oxygen in the exhaust gases is one per cent or more, by weight.

(4) "Low NOx burner" means a burner designed to reduce flame turbulence by the mixing of fuel and air and by establishing fuel-rich zones for initial combustion, thereby reducing the formation of NOx.

(M)

(1) "Mid-size boiler" means an industrial boiler with a maximum heat input capacity greater than fifty mmBtu/hr and equal to or less than one hundred mmBtu/hr.

(2) "MmBtu/hr" means million British thermal units per hour.

(3) "Municipal solid waste" means household, commercial/retail, or institutional waste. Household waste includes material discarded by single and multiple residential dwellings, hotels, motels, and other similar permanent or temporary housing establishments or facilities. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, non-manufacturing activities at industrial facilities, and similar establishments or facilities. Institutional waste includes material discarded by schools, hospitals, non-manufacturing facilities and other similar establishments or facilities. Household, commercial/retail, and institutional wastes do not include sewage, wood pallets, construction and demolition wastes, or motor vehicles (including motor vehicle parts or vehicle fluff). Municipal solid waste does include motor vehicle maintenance materials, limited to vehicle batteries, used motor oil, and tires. Municipal solid waste does not include wastes that are solely segregated medical wastes. However any mixture of segregated wastes which contain more than thirty per cent medical waste discards is considered to be municipal solid waste.

(4) "Municipal waste combustor" means any device that combusts any solid, liquid, or gasified municipal solid waste.

(N)

(1) "N/A" means not applicable.

(2) "Natural gas" means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane.

(3) "Nitrogen oxides" or "NOx" means all oxides of nitrogen which are determined to be ozone precursors, including, but not limited to, nitrogen oxide and nitrogen dioxide, but excluding nitrous oxide, collectively expressed as nitrogen dioxide.

(O)

(1) "Oil" means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum,

including distillate oil and residual oil.

(2) "Overfeed stoker-fired" means a boiler design that employs a moving grate assembly where the coal is fed into a hopper and then onto a continuous grate that conveys the coal into the furnace. As coal moves through the furnace, it passes over several air zones for staged burning.

(P)

(1) "Peaking unit" means any electric generating unit that operates at a capacity factor of less than ten per cent between April first and October thirty-first of any calendar year.

(2) "Potential to emit" means the maximum capacity of a facility or stationary source to emit NOx under its physical and operational design. Any physical or operational limitation on the capacity of the facility or stationary source to emit NOx, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, is treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

(3) "Ppmvd" means parts per million by volume on a dry basis.

(Q) [Reserved.]

(R)

(1) "RACT" means the lowest emissions limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.

(2) "Reheat furnace" means a furnace in which metal ingots, billets, slabs, beams, blooms and other similar products are heated to the temperature needed for hot-working.

(3) "Research and development sources" means a research or laboratory facility the primary purpose of which is to conduct research and development into new processes and products, that is operated

under the close supervision of technically trained personnel, and that is not engaged in the manufacture of products for sale or exchange for commercial profit, except in a de-minimis manner.

(4) "Residual oil" means crude oil, fuel oil that does not comply with the specifications under the definition of "distillate oil," and all fuel oil numbers four, five, or six, as defined by ASTM D396, "Standard Specification for Fuel Oils."

(5) "Rich burn engine" means an internal combustion engine where the amount of oxygen in the engine exhaust gases is less than one per cent, by weight.

(S)

(1) "Small boiler" means an industrial boiler with a maximum heat input capacity greater than twenty mmBtu/hr and equal to or less than fifty mmBtu/hr.

(2) "Space heating unit " means any fuel burning equipment that is used only for space heating purposes during the period from November first through March thirty-first or during other periods of cold weather conditions.

(3) "Spreader stoker-fired" means a boiler design where mechanical or pneumatic feeders distribute coal uniformly over the surface of a moving grate.

(4) "Stand-by fuel burning equipment" means any fuel burning equipment which is used only as a direct substitution for other fuel burning equipment for a limited period due to unpredictable breakdown or failure, or routine scheduled maintenance of such other fuel burning equipment or its associated air pollution control system. Stand-by fuel burning equipment includes engines that meet the definition of emergency stationary internal combustion engine under 40 CFR Part 60, Subpart IIII and 40 CFR Part 60, Subpart JJJJ or the definition of emergency stationary RICE under 40 CFR Part 63, Subpart ZZZZ.

(5) "Start-up unit" means a unit operated only to start up larger electric generating units.

(6) "Stationary combustion turbine" means any simple cycle combustion turbine, regenerative cycle

combustion turbine, or any combustion turbine portion of a combined cycle steam/electric generating system that is not self-propelled, but which may be mounted on a vehicle for portability.

(7) "Stationary internal combustion engine" means any reciprocating internal combustion engine that is not self propelled, but which may be mounted on a vehicle for portability.

(T)

(1) "Tangential-fired" means a furnace firing design where the burners are mounted at the corners of the furnace chamber.

(2) "Tune-up" means adjustments made to a burner or boiler in accordance with procedures supplied by the manufacturer (or approved specialist) to optimize the combustion efficiency.

(U) [Reserved.]

(V) "Very large boiler" means an industrial boiler with a maximum heat input capacity greater than two hundred fifty mmBtu/hr.

(W)

(1) "Wall-fired" means a furnace firing design in which the burners are mounted in an array on one or more vertical walls, including:

(a) Opposed firing, where the burners are mounted on two opposite walls; and

(b) Single-wall firing, where the burners are mounted on only one wall.

[Comment: Wall-fired does not include cell burner configurations.]

(2) "Wet bottom" means a furnace design in which the coal-fired unit is equipped for slag disposal with a two-stage arrangement consisting of a chamber in the lower part of the furnace where the slag is deposited in a liquid state onto a collection surface, and a tank, containing water, into which the

liquid slag is tapped.

(X) [Reserved.]

(Y) [Reserved.]

(Z) [Reserved.]

(AA) Referenced materials. This chapter includes references to certain matter or materials. The text of the referenced materials is not included in the rules contained in this chapter. Information on the availability of the referenced materials as well as the date of, or the particular edition or version of the material is included in this rule. For materials subject to change, only the specific versions specified in this rule are referenced. Material is referenced as it exists on the effective date of this rule. Except for subsequent annual publication of existing (unmodified) Code of Federal Regulation compilations, any amendment or revision to a referenced document is not applicable unless and until this rule has been amended to specify the new dates.

(1) Availability. The referenced materials are available as follows:

(a) American Society for Testing Materials (ASTM). Information and copies of documents may be obtained by writing to: "ASTM International, 100 Bar Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19426- 2959." These documents are also available for purchase at www.astm.org. ASTM documents are also available for inspection and copying at most public libraries and "The State Library of Ohio."

(b) Code of Federal Regulations (CFR). Information and copies may be obtained by writing to: "Superintendent of Documents, Attn: New Orders, PO Box 371954, Pittsburgh, PA 15250-7954." The full text of the CFR is also available in electronic format at http://www.ecfr.gov. The CFR compilations are also available for inspection and copying at most public libraries and "The State Library of Ohio."

(c) Federal Register (FR). Information and copies may be obtained by writing to: "Superintendent of Documents, Attn: New Orders, PO Box 371954, Pittsburgh, PA 15250-7954." Online access to the

Federal Register is available at http://www.gpo.gov/fdsys/. A copy of the Federal Register is also available for inspection and copying at most public libraries and "The State Library of Ohio."

(d) "EPA Air Pollution Control Cost Manual;" United States Environmental Protection Agency. Information and copies of this document may be obtained by writing to: "United States Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina 27711." This document is also available for viewing at https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution#cost%20manual

(e) "Federal Consent Decree:" Civil Action No. 5:14-cv-00884. Copies may be obtained upon written request to: Consent Decree Library, U.S. DOJ-ENRD, P.O. Box 7611, Washington, DC 20044-7611.Electronic copies may be examined and downloaded at the following web address: http://www.usdoj.gov/enrd/Consent_Decrees.html

(f) "Guidance for Estimating Capital and Annual Costs of Air Pollution Systems;" Ohio environmental protection agency "Engineering Guide 46." Information and copies of this document may be obtained by writing to: "Ohio environmental protection agency, division of air pollution control, 50 West Town Street, Suite 700, Columbus, Ohio, 43215." This document is also available for viewing at https://epa.ohio.gov/divisions-and-offices/air-pollution-control/guides-and-manuals/engineering-guides-notebook.

(2) Referenced materials.

(a) The following as published the July 1, 2024 Code of Federal Regulations:

(i) 40 CFR Part 60; "Standards of Performance for New Stationary Sources".

(ii) 40 CFR Part 60, Appendix F; "Quality Assurance Procedures".

(iii) 40 CFR Part 60, Subpart IIII,"Standards of Performance for Stationary Compression Ignition Internal Combustion Engines".

(iv) 40 CFR Part 60, Subpart JJJJ, "Standards of Performance for Stationary Spark Ignition Internal Combustion Engines".

(v) 40 CFR Part 60.13, "Monitoring Requirements".

(vi) 40 CFR Part 63, Subpart ZZZZ, "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines".

(vii) 40 CFR Part 75; "Continuous emission monitoring".

(viii) 40 CFR Part 97, Subpart AAAAA, "CSAPR NOx Annual Trading Program".

(ix) 40 CFR Part 97, Subpart BBBBB, "CSAPR NOx Ozone Season Group 1 Trading Program".

(x) 40 CFR Part 97, Subpart EEEEE, "CSAPR NOx Ozone Season Group 2 Trading Program".

(b) The following ASTMs:

(i) ASTM D388-23; "Standard Classification of Coals by Rank"; updated June 16, 2023.

(ii) ASTM D396-24; "Standard Specification for Fuel Oils"; updated May 6, 2024.

(iii) ASTM D975-24a; "Standard Specification for Diesel Fuel"; updated August 22, 2024.

(c) The following other documents:

(i) "EPA Air Pollution Control Cost Manual"; EPA/452/B-02-001, Sixth Edition, January 2002.

(ii) "Federal Consent Decree": Civil Action No. 5:14-cv-00884, as published on July 14, 2014.

(iii) "Guidance for Estimating Capital and Annual Costs of Air Pollution Systems"; Ohio environmental protection agency Engineering Guide 46; March 1983.

(d) The following performance specifications and USEPA methods as published in the July 1, 2024 Code of Federal Regulations:

(i) Performance Specification 2; contained in 40 CFR Part 60, Appendix B; "Specifications and Test Procedures for SO2 and NOX Continuous Emission Monitoring Systems in Stationary Sources".

(ii) Performance Specification 3; contained in 40 CFR Part 60, Appendix B; "Specifications and Test Procedures for O2 and CO2 Continuous Emission Monitoring Systems in Stationary Sources".

(iii) Performance Specification 16; contained in 40 CFR Part 60, Appendix B; "Specifications and Test Procedures for Predictive Emission Monitoring Systems in Stationary Sources".

(iv) USEPA method 7; contained in 40 CFR Part 60, Appendix A; "Determination of nitrogen oxide emissions from stationary sources".

(v) USEPA method 7a; contained in 40 CFR Part 60, Appendix A; "Determination of nitrogen oxide emissions from stationary sources-Ion chromatographic method".

(vi) USEPA method 7c; contained in 40 CFR Part 60, Appendix A; "Determination of nitrogen oxide emissions from stationary sources-Alkaline-permanganate/colorimetric method".

(vii) USEPA method 7d; contained in 40 CFR Part 60, Appendix A; "Determination of nitrogen oxide emissions from stationary sources-Alkaline-permanganate/ion chromatographic method".

(viii) USEPA method 7e; contained in 40 CFR Part 60, Appendix A; "Determination of Nitrogen Oxides Emissions From Stationary Sources (Instrumental Analyzer Procedure)".