

Texas Commission on Environmental Quality

Chapter 101 - General Air Quality Rules

SUBCHAPTER A: GENERAL RULES

GA1 §101.1. Definitions

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SUBCHAPTER A: GENERAL RULES

~~§§101.1 101.5, 101.8 101.10, 101.13, 101.14, 101.18 101.21,
101.23, 101.24, 101.26 101.28~~

Effective April 17, 2014

§101.1. Definitions.

Unless specifically defined in the Texas Clean Air Act (TCAA) or in the rules of the commission, the terms used by the commission have the meanings commonly ascribed to them in the field of air pollution control. In addition to the terms that are defined by the TCAA, the following terms, when used in the air quality rules in this title, have the following meanings, unless the context clearly indicates otherwise.

(1) Account--For those sources required to be permitted under Chapter 122 of this title (relating to Federal Operating Permits Program), all sources that are aggregated as a site. For all other sources, any combination of sources under common ownership or control and located on one or more contiguous properties, or properties contiguous except for intervening roads, railroads, rights-of-way, waterways, or similar divisions.

(2) Acid gas flare--A flare used exclusively for the incineration of hydrogen sulfide and other acidic gases derived from natural gas sweetening processes.

(3) Agency established facility identification number--For the purposes of Subchapter F of this chapter (relating to Emissions Events and Scheduled Maintenance, Startup, and Shutdown Activities), a unique alphanumeric code required to be assigned by the owner or operator of a regulated entity that the emission inventory reporting requirements of §101.10 of this title (relating to Emissions Inventory Requirements) are applicable to each facility at that regulated entity.

(4) Ambient air--That portion of the atmosphere, external to buildings, to which the general public has access.

(5) Background--Background concentration, the level of air contaminants that cannot be reduced by controlling emissions from man-made sources. It is determined by measuring levels in non-urban areas.

(6) Boiler--Any combustion equipment fired with solid, liquid, and/or gaseous fuel used to produce steam or to heat water.

(7) Capture system--All equipment (including, but not limited to, hoods, ducts, fans, booths, ovens, dryers, etc.) that contains, collects, and transports an air pollutant to a control device.

(8) Captured facility--A manufacturing or production facility that generates an industrial solid waste or hazardous waste that is routinely stored, processed, or disposed of on a shared basis in an integrated waste management unit owned, operated by, and located within a contiguous manufacturing complex.

(9) Carbon adsorber--An add-on control device that uses activated carbon to adsorb volatile organic compounds from a gas stream.

(10) Carbon adsorption system--A carbon adsorber with an inlet and outlet for exhaust gases and a system to regenerate the saturated adsorbent.

(11) Coating--A material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealants, adhesives, thinners, diluents, inks, maskants, and temporary protective coatings.

(12) Cold solvent cleaning--A batch process that uses liquid solvent to remove soils from the surfaces of parts or to dry the parts by spraying, brushing, flushing, and/or immersion while maintaining the solvent below its boiling point. Wipe cleaning (hand cleaning) is not included in this definition.

(13) Combustion unit--Any boiler plant, furnace, incinerator, flare, engine, or other device or system used to oxidize solid, liquid, or gaseous fuels, but excluding motors and engines used in propelling land, water, and air vehicles.

(14) Combustion turbine--Any gas turbine system that is gas and/or liquid fuel fired with or without power augmentation. This unit is either attached to a foundation or is portable equipment operated at a specific minor or major source for more than 90 days in any 12-month period. Two or more gas turbines powering one shaft will be treated as one unit.

(15) Commercial hazardous waste management facility--Any hazardous waste management facility that accepts hazardous waste or polychlorinated biphenyl compounds for a charge, except a captured facility that disposes only waste generated on-site or a facility that accepts waste only from other facilities owned or effectively controlled by the same person.

(16) Commercial incinerator--An incinerator used to dispose of waste material from retail and wholesale trade establishments.

(17) Commercial medical waste incinerator--A facility that accepts for incineration medical waste generated outside the property boundaries of the facility.

(18) Component--A piece of equipment, including, but not limited to, pumps, valves, compressors, and pressure relief valves that has the potential to leak volatile organic compounds.

(19) Condensate--Liquids that result from the cooling and/or pressure changes of produced natural gas. Once these liquids are processed at gas plants or refineries or in any other manner, they are no longer considered condensates.

(20) Construction-demolition waste--Waste resulting from construction or demolition projects.

(21) Control system or control device--Any part, chemical, machine, equipment, contrivance, or combination of same, used to destroy, eliminate, reduce, or control the emission of air contaminants to the atmosphere.

(22) Conveyorized degreasing--A solvent cleaning process that uses an automated parts handling system, typically a conveyor, to automatically provide a continuous supply of parts to be cleaned or dried using either cold solvent or vaporized solvent. A conveyorized degreasing process is fully enclosed except for the conveyor inlet and exit portals.

(23) Criteria pollutant or standard--Any pollutant for which there is a national ambient air quality standard established under 40 Code of Federal Regulations Part 50.

(24) Custody transfer--The transfer of produced crude oil and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

(25) *De minimis* impact--A change in ground level concentration of an air contaminant as a result of the operation of any new major stationary source or of the operation of any existing source that has undergone a major modification that does not exceed the significance levels as specified in 40 Code of Federal Regulations §51.165(b)(2).

(26) Domestic wastes--The garbage and rubbish normally resulting from the functions of life within a residence.

(27) Emissions banking--A system for recording emissions reduction credits so they may be used or transferred for future use.

(28) Emissions event--Any upset event or unscheduled maintenance, startup, or shutdown activity, from a common cause that results in unauthorized emissions of air contaminants from one or more emissions points at a regulated entity.

(29) Emissions reduction credit--Any stationary source emissions reduction that has been banked in accordance with Chapter 101, Subchapter H, Division 1 of this title (relating to Emission Credit Banking and Trading).

(30) Emissions reduction credit certificate--The certificate issued by the executive director that indicates the amount of qualified reduction available for use as offsets and the length of time the reduction is eligible for use.

(31) Emissions unit--Any part of a stationary source that emits, or would have the potential to emit, any pollutant subject to regulation under the Federal Clean Air Act.

(32) Excess opacity event--When an opacity reading is equal to or exceeds 15 additional percentage points above an applicable opacity limit, averaged over a six-minute period.

(33) Exempt solvent--Those carbon compounds or mixtures of carbon compounds used as solvents that have been excluded from the definition of volatile organic compound.

(34) External floating roof--A cover or roof in an open top tank that rests upon or is floated upon the liquid being contained and is equipped with a single or double seal to close the space between the roof edge and tank shell. A double seal consists of two complete and separate closure seals, one above the other, containing an enclosed space between them.

(35) Federal motor vehicle regulation--Control of Air Pollution from Motor Vehicles and Motor Vehicle Engines, 40 Code of Federal Regulations Part 85.

(36) Federally enforceable--All limitations and conditions that are enforceable by the United States Environmental Protection Agency administrator, including those requirements developed under 40 Code of Federal Regulations (CFR) Parts 60 and 61; requirements within any applicable state implementation plan (SIP); and any permit requirements established under 40 CFR §52.21 or under regulations approved under 40 CFR Part 51, Subpart 1, including operating permits issued under the approved program that is incorporated into the SIP and that expressly requires adherence to any permit issued under such program.

(37) Flare--An open combustion unit (i.e., lacking an enclosed combustion chamber) whose combustion air is provided by uncontrolled ambient air around the flame, and that is used as a control device. A flare may be equipped with a radiant heat shield (with or without a refractory lining), but is not equipped with a flame air control damping system to control the air/fuel mixture. In addition, a flare may also use

auxiliary fuel. The combustion flame may be elevated or at ground level. A vapor combustor, as defined in this section, is not considered a flare.

(38) Fuel oil--Any oil meeting the American Society for Testing and Materials (ASTM) specifications for fuel oil in ASTM D396-01, Standard Specifications for Fuel Oils, revised 2001. This includes fuel oil grades 1, 1 (Low Sulfur), 2, 2 (Low Sulfur), 4 (Light), 4, 5 (Light), 5 (Heavy), and 6.

(39) Fugitive emission--Any gaseous or particulate contaminant entering the atmosphere that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening designed to direct or control its flow.

(40) Garbage--Solid waste consisting of putrescible animal and vegetable waste materials resulting from the handling, preparation, cooking, and consumption of food, including waste materials from markets, storage facilities, and handling and sale of produce and other food products.

(41) Gasoline--Any petroleum distillate having a Reid vapor pressure of four pounds per square inch (27.6 kilopascals) or greater that is produced for use as a motor fuel, and is commonly called gasoline.

(42) Greenhouse gases (GHGs)--the aggregate group of six greenhouse gases: carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

(43) Hazardous wastes--Any solid waste identified or listed as a hazardous waste by the administrator of the United States Environmental Protection Agency under the federal Solid Waste Disposal Act, as amended by Resource Conservation and Recovery Act, 42 United States Code, §§6901 *et seq.*, as amended.

(44) Heatset (used in offset lithographic printing)--Any operation where heat is required to evaporate ink oil from the printing ink. Hot air dryers are used to deliver the heat.

(45) High-bake coatings--Coatings designed to cure at temperatures above 194 degrees Fahrenheit.

(46) High-volume low-pressure spray guns--Equipment used to apply coatings by means of a spray gun that operates between 0.1 and 10.0 pounds per square inch gauge air pressure measured at the air cap.

(47) Incinerator--An enclosed combustion apparatus and attachments that is used in the process of burning wastes for the primary purpose of reducing its volume and weight by removing the combustibles of the waste and is equipped with a flue for

conducting products of combustion to the atmosphere. Any combustion device that burns 10% or more of solid waste on a total British thermal unit (Btu) heat input basis averaged over any one-hour period is considered to be an incinerator. A combustion device without instrumentation or methodology to determine hourly flow rates of solid waste and burning 1.0% or more of solid waste on a total Btu heat input basis averaged annually is also considered to be an incinerator. An open-trench type (with closed ends) combustion unit may be considered an incinerator when approved by the executive director. Devices burning untreated wood scraps, waste wood, or sludge from the treatment of wastewater from the process mills as a primary fuel for heat recovery are not included under this definition. Combustion devices permitted under this title as combustion devices other than incinerators will not be considered incinerators for application of any rule within this title provided they are installed and operated in compliance with the condition of all applicable permits.

(48) Industrial boiler--A boiler located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes.

(49) Industrial furnace--Cement kilns; lime kilns; aggregate kilns; phosphate kilns; coke ovens; blast furnaces; smelting, melting, or refining furnaces, including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters, or foundry furnaces; titanium dioxide chloride process oxidation reactors; methane reforming furnaces; pulping recovery furnaces; combustion devices used in the recovery of sulfur values from spent sulfuric acid; and other devices the commission may list.

(50) Industrial solid waste--Solid waste resulting from, or incidental to, any process of industry or manufacturing, or mining or agricultural operations, classified as follows.

(A) Class 1 industrial solid waste or Class 1 waste is any industrial solid waste designated as Class 1 by the executive director as any industrial solid waste or mixture of industrial solid wastes that because of its concentration or physical or chemical characteristics is toxic, corrosive, flammable, a strong sensitizer or irritant, a generator of sudden pressure by decomposition, heat, or other means, and may pose a substantial present or potential danger to human health or the environment when improperly processed, stored, transported, or otherwise managed, including hazardous industrial waste, as defined in §335.1 and §335.505 of this title (relating to Definitions and Class 1 Waste Determination).

(B) Class 2 industrial solid waste is any individual solid waste or combination of industrial solid wastes that cannot be described as Class 1 or Class 3, as defined in §335.506 of this title (relating to Class 2 Waste Determination).

(C) Class 3 industrial solid waste is any inert and essentially insoluble industrial solid waste, including materials such as rock, brick, glass, dirt, and certain plastics and rubber, etc., that are not readily decomposable as defined in §335.507 of this title (relating to Class 3 Waste Determination).

(51) Internal floating cover--A cover or floating roof in a fixed roof tank that rests upon or is floated upon the liquid being contained, and is equipped with a closure seal or seals to close the space between the cover edge and tank shell.

(52) Leak--A volatile organic compound concentration greater than 10,000 parts per million by volume or the amount specified by applicable rule, whichever is lower; or the dripping or exuding of process fluid based on sight, smell, or sound.

(53) Liquid fuel--A liquid combustible mixture, not derived from hazardous waste, with a heating value of at least 5,000 British thermal units per pound.

(54) Liquid-mounted seal--A primary seal mounted in continuous contact with the liquid between the tank wall and the floating roof around the circumference of the tank.

(55) Maintenance area--A geographic region of the state previously designated nonattainment under the Federal Clean Air Act Amendments of 1990 and subsequently redesignated to attainment subject to the requirement to develop a maintenance plan under 42 United States Code, §7505a, as described in 40 Code of Federal Regulations Part 81 and in pertinent *Federal Register* notices.

(56) Maintenance plan--A revision to the applicable state implementation plan, meeting the requirements of 42 United States Code, §7505a.

(57) Marine vessel--Any watercraft used, or capable of being used, as a means of transportation on water, and that is constructed or adapted to carry, or that carries, oil, gasoline, or other volatile organic liquid in bulk as a cargo or cargo residue.

(58) Mechanical shoe seal--A metal sheet that is held vertically against the storage tank wall by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(59) Medical waste--Waste materials identified by the Department of State Health Services as "special waste from health care-related facilities" and those waste materials commingled and discarded with special waste from health care-related facilities.

(60) Metropolitan Planning Organization--That organization designated as being responsible, together with the state, for conducting the continuing, cooperative, and comprehensive planning process under 23 United States Code (USC), §134 and 49 USC, §1607.

(61) Mobile emissions reduction credit--The credit obtained from an enforceable, permanent, quantifiable, and surplus (to other federal and state rules) emissions reduction generated by a mobile source as set forth in Chapter 114, Subchapter F of this title (relating to Vehicle Retirement and Mobile Emission Reduction Credits), and that has been banked in accordance with Subchapter H, Division 1 of this chapter (relating to Emission Credit Banking and Trading).

(62) Motor vehicle--A self-propelled vehicle designed for transporting persons or property on a street or highway.

(63) Motor vehicle fuel dispensing facility--Any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.

(64) Municipal solid waste--Solid waste resulting from, or incidental to, municipal, community, commercial, institutional, and recreational activities, including garbage, rubbish, ashes, street cleanings, dead animals, abandoned automobiles, and all other solid waste except industrial solid waste.

(65) Municipal solid waste facility--All contiguous land, structures, other appurtenances, and improvements on the land used for processing, storing, or disposing of solid waste. A facility may be publicly or privately owned and may consist of several processing, storage, or disposal operational units, e.g., one or more landfills, surface impoundments, or combinations of them.

(66) Municipal solid waste landfill--A discrete area of land or an excavation that receives household waste and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 Code of Federal Regulations §257.2. A municipal solid waste landfill (MSWLF) unit also may receive other types of Resource Conservation and Recovery Act Subtitle D wastes, such as commercial solid waste, nonhazardous sludge, conditionally exempt small-quantity generator waste, and industrial solid waste. Such a landfill may be publicly or privately owned. An MSWLF unit may be a new MSWLF unit, an existing MSWLF unit, or a lateral expansion.

(67) National ambient air quality standard--Those standards established under 42 United States Code, §7409, including standards for carbon monoxide, lead, nitrogen dioxide, ozone, inhalable particulate matter, and sulfur dioxide.

(68) Net ground-level concentration--The concentration of an air contaminant as measured at or beyond the property boundary minus the representative concentration flowing onto a property as measured at any point. Where there is no expected influence of the air contaminant flowing onto a property from other sources, the net ground level concentration may be determined by a measurement at or beyond the property boundary.

(69) New source--Any stationary source, the construction or modification of which was commenced after March 5, 1972.

(70) Nitrogen oxides (NO_x)-- The sum of the nitric oxide and nitrogen dioxide in the flue gas or emission point, collectively expressed as nitrogen dioxide.

(71) Nonattainment area--A defined region within the state that is designated by the United States Environmental Protection Agency (EPA) as failing to meet the national ambient air quality standard (NAAQS or standard) for a pollutant for which a standard exists. The EPA will designate the area as nonattainment under the provisions of 42 United States Code, §7407(d). For the official list and boundaries of nonattainment areas, see 40 Code of Federal Regulations (CFR) Part 81 and pertinent *Federal Register* notices. The designations and classifications for the one-hour ozone national ambient air quality standard in 40 CFR Part 81 were retained for the purpose of anti-backsliding and upon determination by the EPA that any requirement is no longer required for purposes of anti-backsliding, then that requirement no longer applies.

(72) Non-reportable emissions event--Any emissions event that in any 24-hour period does not result in an unauthorized emission from any emissions point equal to or in excess of the reportable quantity as defined in this section.

(73) Opacity--The degree to which an emission of air contaminants obstructs the transmission of light expressed as the percentage of light obstructed as measured by an optical instrument or trained observer.

(74) Open-top vapor degreasing--A batch solvent cleaning process that is open to the air and that uses boiling solvent to create solvent vapor used to clean or dry parts through condensation of the hot solvent vapors on the parts.

(75) Outdoor burning--Any fire or smoke-producing process that is not conducted in a combustion unit.

(76) Particulate matter--Any material, except uncombined water, that exists as a solid or liquid in the atmosphere or in a gas stream at standard conditions.

(A) Particulate matter with diameters less than 10 micrometers (PM₁₀)--Particulate matter with an aerodynamic diameter less than or equal to a

nominal ten micrometers as measured by a reference method based on 40 Code of Federal Regulations (CFR) Part 50, Appendix J, and designated in accordance with 40 CFR Part 53, or by an equivalent method designated with that Part 53.

(B) Particulate matter with diameters less than 2.5 micrometers (PM_{2.5})--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 with that Part 53.

(77) Particulate matter emissions--All finely-divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by United States Environmental Protection Agency Reference Method 5, as specified at 40 Code of Federal Regulations (CFR) Part 60, Appendix A, modified to include particulate caught by an impinger train; by an equivalent or alternative method, as specified at 40 CFR Part 51; or by a test method specified in an approved state implementation plan.

(A) Direct PM emissions--Solid particles emitted directly from an air emissions source or activity, or gaseous emissions or liquid droplets from an air emissions source or activity which condense to form particulate matter at ambient temperatures. Direct 2.5 micrometers (PM_{2.5}) emissions include elemental carbon, directly emitted organic carbon, directly emitted sulfate, directly emitted nitrate, and other inorganic particles (including but not limited to crustal materials, metals, and sea salt).

(B) Secondary PM emissions--Those air pollutants other than PM_{2.5} direct emissions that contribute to the formation of PM_{2.5}. PM_{2.5} precursors include sulfur dioxide (SO₂), nitrogen oxides (NO_x), volatile organic compounds, and ammonia.

(78) Petroleum refinery--Any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of crude oil, or through the redistillation, cracking, extraction, reforming, or other processing of unfinished petroleum derivatives.

(79) PM_{2.5} emissions--Finely-divided solid or liquid material with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers emitted to the ambient air as measured by an applicable reference method, or an equivalent or alternative method specified in 40 Code of Federal Regulations Part 51, or by a test method approved under a state implementation plan or under a United States Environmental Protection Agency delegation or approval.

(80) PM₁₀ emissions--Finely-divided solid or liquid material with an aerodynamic diameter less than or equal to a nominal ten micrometers emitted to the ambient air as measured by an applicable reference method, or an equivalent or

alternative method specified in 40 Code of Federal Regulations Part 51, or by a test method specified in an approved state implementation plan.

(81) Polychlorinated biphenyl compound--A compound subject to 40 Code of Federal Regulations Part 761.

(82) Process or processes--Any action, operation, or treatment embracing chemical, commercial, industrial, or manufacturing factors such as combustion units, kilns, stills, dryers, roasters, and equipment used in connection therewith, and all other methods or forms of manufacturing or processing that may emit smoke, particulate matter, gaseous matter, or visible emissions.

(83) Process weight per hour--"Process weight" is the total weight of all materials introduced or recirculated into any specific process that may cause any discharge of air contaminants into the atmosphere. Solid fuels charged into the process will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. The "process weight per hour" will be derived by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during that the equipment used to conduct the process is idle. For continuous operation, the "process weight per hour" will be derived by dividing the total process weight for a 24-hour period by 24.

(84) Property--All land under common control or ownership coupled with all improvements on such land, and all fixed or movable objects on such land, or any vessel on the waters of this state.

(85) Reasonable further progress--Annual incremental reductions in emissions of the applicable air contaminant that are sufficient to provide for attainment of the applicable national ambient air quality standard in the designated nonattainment areas by the date required in the state implementation plan.

(86) Regulated entity--All regulated units, facilities, equipment, structures, or sources at one street address or location that are owned or operated by the same person. The term includes any property under common ownership or control identified in a permit or used in conjunction with the regulated activity at the same street address or location. Owners or operators of pipelines, gathering lines, and flowlines under common ownership or control in a particular county may be treated as a single regulated entity for purposes of assessment and regulation of emissions events.

(87) Remote reservoir cold solvent cleaning--Any cold solvent cleaning operation in which liquid solvent is pumped to a sink-like work area that drains solvent back into an enclosed container while parts are being cleaned, allowing no solvent to pool in the work area.

(88) Reportable emissions event--Any emissions event that in any 24-hour period, results in an unauthorized emission from any emissions point equal to or in excess of the reportable quantity as defined in this section.

(89) Reportable quantity (RQ)--Is as follows:

(A) for individual air contaminant compounds and specifically listed mixtures by name or Chemical Abstracts Service (CAS) number, either:

(i) the lowest of the quantities:

(I) listed in 40 Code of Federal Regulations (CFR) Part 302, Table 302.4, the column "final RQ";

(II) listed in 40 CFR Part 355, Appendix A, the column "Reportable Quantity"; or

(III) listed as follows:

(-a-) acetaldehyde - 1,000 pounds, except in the Houston-Galveston-Brazoria (HGB) and Beaumont-Port Arthur (BPA) ozone nonattainment areas as defined in paragraph (70) of this section, where the RQ must be 100 pounds;

(-b-) butanes (any isomer) - 5,000 pounds;

(-c-) butenes (any isomer, except 1,3-butadiene) - 5,000 pounds, except in the HGB and BPA ozone nonattainment areas as defined in paragraph (70) of this section, where the RQ must be 100 pounds;

(-d-) carbon monoxide - 5,000 pounds;

(-e-) 1-chloro-1,1-difluoroethane (HCFC-142b) - 5,000 pounds;

(-f-) chlorodifluoromethane (HCFC-22) - 5,000 pounds;

(-g-) 1-chloro-1-fluoroethane (HCFC-151a) - 5,000 pounds;

(-h-) chlorofluoromethane (HCFC-31) - 5,000 pounds;

- 5,000 pounds;
- (-i-) chloropentafluoroethane (CFC-115) -
- 124) - 5,000 pounds;
- (-j-) 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-
- 124a) - 5,000 pounds;
- (-k-) 1-chloro-1,1,2,2 tetrafluoroethane (HCFC-
- 43-10mee) - 5,000 pounds;
- (-l-) 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC
- 5,000 pounds;
- (-m-) decanes (any isomer) - 5,000 pounds;
- (-n-) 1,1-dichloro-1-fluoroethane (HCFC-141b) -
- (HCFC-225ca) - 5,000 pounds;
- (-o-) 3,3-dichloro-1,1,2,2-pentafluoropropane
- (HCFC-225cb) - 5,000 pounds;
- (-p-) 1,3-dichloro-1,1,2,2,3-pentafluoropropane
- (CFC-114) - 5,000 pounds;
- (-q-) 1,2-dichloro-1,1,2,2-tetrafluoroethane
- 5,000 pounds;
- (-r-) 1,1-dichlorotetrafluoroethane (CFC-114a) -
- 123a) - 5,000 pounds;
- (-s-) 1,2-dichloro-1,1,2-trifluoroethane (HCFC-
- pounds;
- (-t-) 1,1-difluoroethane (HFC-152a) - 5,000
- pounds;
- (-u-) difluoromethane (HFC-32) - 5,000
- (-v-) ethanol - 5,000 pounds;
- (-w-) ethylene - 5,000 pounds, except in the
HGB and BPA ozone nonattainment areas as defined in paragraph (70) of this section,
where the RQ must be 100 pounds;

- 227ea) - 5,000 pounds;
- 236fa) - 5,000 pounds;
- 236ea) - 5,000 pounds;
- (-x-) ethylfluoride (HFC-161) - 5,000 pounds;
- (-y-) 1,1,1,2,3,3,3-heptafluoropropane (HFC-
- (-z-) 1,1,1,3,3,3-hexafluoropropane (HFC-
- (-aa-) 1,1,1,2,3,3-hexafluoropropane (HFC-
- (-bb-) hexanes (any isomer) - 5,000 pounds;
- (-cc-) isopropyl alcohol - 5,000 pounds;
- (-dd-) mineral spirits - 5,000 pounds;
- (-ee-) octanes (any isomer) - 5,000 pounds;
- (-ff-) oxides of nitrogen - 200 pounds in ozone nonattainment, ozone maintenance, early action compact areas, Nueces County, and San Patricio County, and 5,000 pounds in all other areas of the state, which should be used instead of the RQs for nitrogen oxide and nitrogen dioxide provided in 40 CFR Part 302, Table 302.4, the column "final RQ";
- 5,000 pounds;
- 365mfc) - 5,000 pounds;
- pounds;
- 245ca) - 5,000 pounds;
- 245ea) - 5,000 pounds;
- 245eb) - 5,000 pounds;
- (-gg-) pentachlorofluoroethane (CFC-111) -
- (-hh-) 1,1,1,3,3-pentafluorobutane (HFC-
- (-ii-) pentafluoroethane (HFC-125) - 5,000
- (-jj-) 1,1,2,2,3-pentafluoropropane (HFC-
- (-kk-) 1,1,2,3,3-pentafluoropropane (HFC-
- (-ll-) 1,1,1,2,3-pentafluoropropane (HFC-

- 245fa) - 5,000 pounds;
- (-mm-) 1,1,1,3,3-pentafluoropropane (HFC-
112) - 5,000 pounds;
- (-nn-) pentanes (any isomer) - 5,000 pounds;
- (-oo-) propane - 5,000 pounds;
- (-pp-) propylene - 5,000 pounds, except in the
HGB and BPA ozone nonattainment areas as defined in paragraph (70) of this section,
where the RQ must be 100 pounds;
- 112a) - 5,000 pounds;
- (-qq-) 1,1,2,2-tetrachlorodifluoroethane (CFC-
112a) - 5,000 pounds;
- (-rr-) 1,1,1,2-tetrachlorodifluoroethane (CFC-
5,000 pounds;
- (-ss-) 1,1,2,2-tetrafluoroethane (HFC-134) -
5,000 pounds;
- (-tt-) 1,1,1,2-tetrafluoroethane (HFC-134a) -
5,000 pounds;
- (-uu-) 1,1,2-trichloro-1,2,2-trifluoroethane
(CFC-113) - 5,000 pounds;
- (-vv-) 1,1,1-trichloro-2,2,2-trifluoroethane
(CFC-113a) - 5,000 pounds;
- (-ww-) 1,1,1-trifluoro-2,2-dichloroethane
(HCFC-123) - 5,000 pounds;
- (-xx-) 1,1,1-trifluoroethane (HFC-143a) - 5,000
pounds;
- (-yy-) trifluoromethane (HFC-23) - 5,000
pounds;
- (-zz-) toluene - 1,000 pounds, except in the
HGB and BPA ozone nonattainment areas as defined in paragraph (70) of this section,
where the RQ must be 100 pounds; or
- (-aaa-) 3-Pentanone, 1,1,1,2,2,4,5,5,5-
nonafluoro-4-(trifluoromethyl)-, CAS No. 756-13-8, or C6 fluoroketone – 5,000 pounds;

(ii) if not listed in clause (i) of this subparagraph, 100 pounds;

(iii) for greenhouse gases, individually or collectively, there is no reportable quantity, except for the specific individual air contaminant compounds listed in this paragraph;

(B) for mixtures of air contaminant compounds:

(i) where the relative amount of individual air contaminant compounds is known through common process knowledge or prior engineering analysis or testing, any amount of an individual air contaminant compound that equals or exceeds the amount specified in subparagraph (A) of this paragraph;

(ii) where the relative amount of individual air contaminant compounds in subparagraph (A)(i) of this paragraph is not known, any amount of the mixture that equals or exceeds the amount for any single air contaminant compound that is present in the mixture and listed in subparagraph (A)(i) of this paragraph;

(iii) where each of the individual air contaminant compounds listed in subparagraph (A)(i) of this paragraph are known to be less than 0.02% by weight of the mixture, and each of the other individual air contaminant compounds covered by subparagraph (A)(ii) of this paragraph are known to be less than 2.0% by weight of the mixture, any total amount of the mixture of air contaminant compounds greater than or equal to 5,000 pounds; or

(iv) where natural gas excluding carbon dioxide, water, nitrogen, methane, ethane, noble gases, hydrogen, and oxygen or air emissions from crude oil are known to be in an amount greater than or equal to 5,000 pounds or the associated hydrogen sulfide and mercaptans in a total amount greater than 100 pounds, whichever occurs first;

(C) for opacity from boilers and combustion turbines as defined in this section fueled by natural gas, coal, lignite, wood, fuel oil containing hazardous air pollutants at a concentration of less than 0.02% by weight, opacity that is equal to or exceeds 15 additional percentage points above the applicable limit, averaged over a six-minute period. Opacity is the only RQ applicable to boilers and combustion turbines described in this paragraph; or

(D) for facilities where air contaminant compounds are measured directly by a continuous emission monitoring system providing updated readings at a minimum 15-minute interval an amount, approved by the executive director based on any relevant conditions and a screening model, that would be reported prior to ground

level concentrations reaching at any distance beyond the closest regulated entity property line:

- and
- (i) less than one-half of any applicable ambient air standards;
 - (ii) less than two times the concentration of applicable air emission limitations.

(90) Rubbish--Nonputrescible solid waste, consisting of both combustible and noncombustible waste materials. Combustible rubbish includes paper, rags, cartons, wood, excelsior, furniture, rubber, plastics, yard trimmings, leaves, and similar materials. Noncombustible rubbish includes glass, crockery, tin cans, aluminum cans, metal furniture, and like materials that will not burn at ordinary incinerator temperatures (1,600 degrees Fahrenheit to 1,800 degrees Fahrenheit).

(91) Scheduled maintenance, startup, or shutdown activity--For activities with unauthorized emissions that are expected to exceed a reportable quantity (RQ), a scheduled maintenance, startup, or shutdown activity is an activity that the owner or operator of the regulated entity whether performing or otherwise affected by the activity, provides prior notice and a final report as required by §101.211 of this title (relating to Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements); the notice or final report includes the information required in §101.211 of this title; and the actual unauthorized emissions from the activity do not exceed the emissions estimates submitted in the initial notification by more than an RQ. For activities with unauthorized emissions that are not expected to, and do not, exceed an RQ, a scheduled maintenance, startup, or shutdown activity is one that is recorded as required by §101.211 of this title. Expected excess opacity events as described in §101.201(e) of this title (relating to Emissions Event Reporting and Recordkeeping Requirements) resulting from scheduled maintenance, startup, or shutdown activities are those that provide prior notice (if required), and are recorded and reported as required by §101.211 of this title.

(92) Sludge--Any solid or semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant; water supply treatment plant, exclusive of the treated effluent from a wastewater treatment plant; or air pollution control equipment.

(93) Smoke--Small gas-born particles resulting from incomplete combustion consisting predominately of carbon and other combustible material and present in sufficient quantity to be visible.

(94) Solid waste--Garbage, rubbish, refuse, sludge from a waste water treatment plant, water supply treatment plant, or air pollution control equipment, and

other discarded material, including solid, liquid, semisolid, or containerized gaseous material resulting from industrial, municipal, commercial, mining, and agricultural operations and from community and institutional activities. The term does not include:

(A) solid or dissolved material in domestic sewage, or solid or dissolved material in irrigation return flows, or industrial discharges subject to regulation by permit issued under the Texas Water Code, Chapter 26;

(B) soil, dirt, rock, sand, and other natural or man-made inert solid materials used to fill land, if the object of the fill is to make the land suitable for the construction of surface improvements; or

(C) waste materials that result from activities associated with the exploration, development, or production of oil or gas, or geothermal resources, and other substance or material regulated by the Railroad Commission of Texas under Natural Resources Code, §91.101, unless the waste, substance, or material results from activities associated with gasoline plants, natural gas liquids processing plants, pressure maintenance plants, or repressurizing plants and is hazardous waste as defined by the administrator of the United States Environmental Protection Agency under the federal Solid Waste Disposal Act, as amended by Resource Conservation and Recovery Act, as amended (42 United States Code, §§6901 *et seq.*).

(95) Sour crude--A crude oil that will emit a sour gas when in equilibrium at atmospheric pressure.

(96) Sour gas--Any natural gas containing more than 1.5 grains of hydrogen sulfide per 100 cubic feet, or more than 30 grains of total sulfur per 100 cubic feet.

(97) Source--A point of origin of air contaminants, whether privately or publicly owned or operated. Upon request of a source owner, the executive director shall determine whether multiple processes emitting air contaminants from a single point of emission will be treated as a single source or as multiple sources.

(98) Special waste from health care-related facilities--A solid waste that if improperly treated or handled, may serve to transmit infectious disease(s) and that is comprised of the following: animal waste, bulk blood and blood products, microbiological waste, pathological waste, and sharps.

(99) Standard conditions--A condition at a temperature of 68 degrees Fahrenheit (20 degrees Centigrade) and a pressure of 14.7 pounds per square inch absolute (101.3 kiloPascals).

(100) Standard metropolitan statistical area--An area consisting of a county or one or more contiguous counties that is officially so designated by the United States Bureau of the Budget.

(101) Submerged fill pipe--A fill pipe that extends from the top of a tank to have a maximum clearance of six inches (15.2 centimeters) from the bottom or, when applied to a tank that is loaded from the side, that has a discharge opening entirely submerged when the pipe used to withdraw liquid from the tank can no longer withdraw liquid in normal operation.

(102) Sulfur compounds--All inorganic or organic chemicals having an atom or atoms of sulfur in their chemical structure.

(103) Sulfuric acid mist/sulfuric acid--Emissions of sulfuric acid mist and sulfuric acid are considered to be the same air contaminant calculated as H₂SO₄ and must include sulfuric acid liquid mist, sulfur trioxide, and sulfuric acid vapor as measured by Test Method 8 in 40 Code of Federal Regulations Part 60, Appendix A.

(104) Sweet crude oil and gas--Those crude petroleum hydrocarbons that are not "sour" as defined in this section.

(105) Total suspended particulate--Particulate matter as measured by the method described in 40 Code of Federal Regulations Part 50, Appendix B.

(106) Transfer efficiency--The amount of coating solids deposited onto the surface or a part of product divided by the total amount of coating solids delivered to the coating application system.

(107) True vapor pressure--The absolute aggregate partial vapor pressure, measured in pounds per square inch absolute, of all volatile organic compounds at the temperature of storage, handling, or processing.

(108) Unauthorized emissions--Emissions of any air contaminant except water, nitrogen, ethane, noble gases, hydrogen, and oxygen that exceed any air emission limitation in a permit, rule, or order of the commission or as authorized by Texas Health and Safety Code, §382.0518(g).

(109) Unplanned maintenance, startup, or shutdown activity--For activities with unauthorized emissions that are expected to exceed a reportable quantity or with excess opacity, an unplanned maintenance, startup, or shutdown activity is:

(A) a startup or shutdown that was not part of normal or routine facility operations, is unpredictable as to timing, and is not the type of event normally authorized by permit; or

(B) a maintenance activity that arises from sudden and unforeseeable events beyond the control of the operator that requires the immediate corrective action to minimize or avoid an upset or malfunction.

(110) Upset event--An unplanned and unavoidable breakdown or excursion of a process or operation that results in unauthorized emissions. A maintenance, startup, or shutdown activity that was reported under §101.211 of this title (relating to Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements), but had emissions that exceeded the reported amount by more than a reportable quantity due to an unplanned and unavoidable breakdown or excursion of a process or operation is an upset event.

(111) Utility boiler--A boiler used to produce electric power, steam, or heated or cooled air, or other gases or fluids for sale.

(112) Vapor combustor--A partially enclosed combustion device used to destroy volatile organic compounds by smokeless combustion without extracting energy in the form of process heat or steam. The combustion flame may be partially visible, but at no time does the device operate with an uncontrolled flame. Auxiliary fuel and/or a flame air control damping system that can operate at all times to control the air/fuel mixture to the combustor's flame zone, may be required to ensure smokeless combustion during operation.

(113) Vapor-mounted seal--A primary seal mounted so there is an annular space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the liquid surface, and the floating roof or cover.

(114) Vent--Any duct, stack, chimney, flue, conduit, or other device used to conduct air contaminants into the atmosphere.

(115) Visible emissions--Particulate or gaseous matter that can be detected by the human eye. The radiant energy from an open flame is not considered a visible emission under this definition.

(116) Volatile organic compound--As defined in 40 Code of Federal Regulations §51.100(s), except §51.100(s)(2) - (4), as amended on January 21, 2009 (74 FR 3441).

(117) Volatile organic compound (VOC) water separator--Any tank, box, sump, or other container in which any VOC, floating on or contained in water entering such tank, box, sump, or other container, is physically separated and removed from such water prior to outfall, drainage, or recovery of such water.