

RULE 102. DEFINITIONS. (Adopted 10/18/1971, revised 1/12/1976, readopted 10/23/1978, revised 7/11/1989, 7/10/1990, 7/30/1991, 7/18/1996, 4/17/1997, 1/21/1999, 5/20/1999, 6/19/2003, 1/20/2005, 6/19/2008, 1/15/2009, 9/20/2010, ~~and~~ 3/17/2011, and [date of amended rule adoption])

These definitions apply to the entire rulebook. Definitions specific to a given rule are defined in that rule or in the first rule of the relevant regulation. Except as otherwise specifically provided in these Rules where the context otherwise indicates, words used in these Rules are used in exactly the same sense as the same words are used in Division 26 of the Health and Safety Code.

[. . .]

“Aerosol Product” means a hand-held, non-refillable container that expels pressurized product by means of a propellant-induced force.

[. . .]

“Avionic Equipment” means any electronic system used on any aircraft, aerospace vehicle, satellite, or space vehicle.

[. . .]

“Capture Efficiency” means the percentage by weight of affected pollutants delivered to a control device divided by the weight of total affected pollutants generated by the source.

[. . .]

“Carbon Adsorber” means a bed of activated carbon into which an air-solvent gas-vapor stream is routed and which adsorbs the solvent on the carbon.

[. . .]

“Catalytic Incinerator” means any device that burns reactive organic compounds or toxic air contaminants in air using a material that increases the rate of combustion without itself undergoing a net chemical change in the process. Common catalyst materials include but are not limited to, platinum alloys, chromium, copper oxide, and cobalt.

[. . .]

“Control Device” means any destruction and/or recovery equipment used to destroy or recover affected pollutant emissions generated by a regulated operation.

“Control Device Efficiency” means the percentage of affected pollutants entering a control device that is not present in the exhaust to the atmosphere of that control device.

[. . .]

“Electronic Components” means the portions of an assembly, including, but not limited to: circuit card assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, magnetic tapes and tape drive mechanisms, discs and disc drive mechanisms, electro-optical devices (e.g., optical filters, sensor assemblies, infrared sensors, charged coupled devices, thermal electric coolers, and vacuum assemblies), solid state components, semiconductors (e.g., diodes, zeners, stacks, rectifiers, integrated microcircuits, transistors, solar cells, light sensing devices, and light-emitting devices), and other electrical fixtures, except for the actual cabinet in which the components are housed.

Comment [A1]: The term is found in proposed amended Rules 330, 337, 349, and 353. To avoid ambiguity, this definition, and other add-on control equipment definitions (e.g., **control device** and **control device efficiency**), are being added. To avoid redundancy in Rules 330, 337, 349, and 353, the District is adding the definitions to Rule 102.

“Electrostatic Spray” means any method of applying a spray coating in which an electrical charge is applied to the coating and the substrate is grounded. The coating is attracted to the substrate by the electrostatic potential between them.

[...]

“Enclosed Cleaning System” means any application equipment cleaner (e.g., an enclosed gun washer) that totally encloses spray guns, cups, nozzles, bowls, and other parts during solvent washing, rinsing, and draining procedures. An enclosed cleaning system for cleaning application equipment is not a solvent cleaning machine.

[...]

Comment [A2]: This definition is being added per requests from industry. The term appears in current Rule 321 and PARs 337 and 353. Hence, we are placing the definition in Rule 102.

“Exempt Compound” means any compound listed as an exempt compound in the definition of “Reactive Organic Compound.” Tertiary-butyl acetate (also known as t-butyl acetate or tBAC) shall be considered exempt as a reactive organic compound only for purposes of reactive organic compound emissions limitations or reactive organic compound content requirements and shall be considered a reactive organic compound for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling, and inventory requirements which apply to reactive organic compounds.

[...]

Comment [A3]: Adding the exempt compound definition here eliminates the need to insert the same definition into other rules. The tBAC qualifier addresses EPA concerns.

“Fluid System” means a power transmission system that uses the force of flowing liquids and gases to transmit power. Fluid systems include hydraulic systems and pneumatic systems.

“Fluorinated Gases” means a compound that contains fluorine and exists in a gaseous state at 25 degrees Celsius and 1 atmosphere of pressure. Fluorinated gases include, but are not limited to:

1. hexafluoroethane (C₂F₆), (CFC-116),
2. octafluoropropane (C₃F₈), (PFC 218),
3. octafluorocyclopentene (C₅F₈), (PFC C-1418),
4. tetrafluoromethane (CF₄), (CFC-14),
5. trifluoromethane (CHF₃), (HFC-23),
6. difluoromethane (CH₂F₂), (HFC-32),
7. octafluorocyclobutane (c-C₄F₈), (RC 318),
8. octafluorotetrahydrofuran -(C₄F₈O),
9. hexafluoro-1,3-butadiene (C₄F₆),
10. carbon fluoride oxide (COF₂),
11. nitrogen trifluoride (NF₃), and
12. sulfur hexafluoride (SF₆).

[...]

Comment [A4]: Adding chemical names here follows the protocol used in the exempt compound list within the reactive organic compound definition.

“Grams of Reactive Organic Compound Per Liter of Material” means the weight of reactive organic compound per volume of material and can be calculated by the following equation:

$$\text{Grams of reactive organic compounds per liter of material} = \frac{W_v - W_w - W_e}{V_m}$$

Where:

- W_v = Weight of volatile compounds in grams
- W_w = Weight of water in grams
- W_e = Weight of exempt compounds in grams
- V_m = Volume of material in liters

[...]

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“High-Precision Optics” means any optical element used in an electro-optical device that is designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes in light energy levels.

[. . .]

“Natural Draft Opening” means any opening in a room, building, or total enclosure that remains open during operation of the facility and that is not connected to a duct in which a fan is installed. The rate and direction of the natural draft through such an opening is a consequence of the difference in pressures on either side of the wall containing the opening.

[. . .]

“Operating Parameter Value” means any minimum or maximum value established for a control equipment or process parameter which, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has continued to comply with an applicable emission limitation.

[. . .]

“Overall Efficiency” means the emission reduction, expressed as a percentage that results from the combined effect of capture and control of affected pollutants (capture efficiency multiplied by control efficiency).

[. . .]

“Photoresist Coating” means any coating applied directly to a substrate to protect surface areas when chemical milling, etching, or other chemical surface operations are performed on the substrate.

[. . .]

“Reactive Organic Compound” means any compound containing at least one (1) atom of carbon, except for the following exempt compounds:

1. acetone
2. ammonium carbonate
3. carbon dioxide
4. carbon monoxide
5. carbonic acid
6. dimethyl carbonate
7. ethane
8. metallic carbides or carbonates
9. methane
10. methyl acetate
11. methyl chloroform (1,1,1-trichloroethane)
12. methyl formate; HCOOCH₃
13. cyclic, branched, or linear completely methylated siloxane compounds
14. methylene chloride
15. parachlorobenzotrifluoride
16. perchloroethylene (tetrachloroethylene)
17. the following four classes of perfluorocarbon (PFC) compounds:
 - a. cyclic, branched, or linear, completely fluorinated alkanes,
 - b. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations,

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- c. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations, and
 - d. sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
18. propylene carbonate
19. tertiary-butyl acetate; C₆H₁₂O₂ (“acetic acid, 1,1-dimethylethyl ester”)

Tertiary-butyl acetate (also known as t-butyl acetate or tBAC) shall be considered exempt as a reactive organic compound only for purposes of reactive organic compound emissions limitations or reactive organic compound content requirements and ~~will continue to shall~~ be considered a reactive organic compound for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling, and inventory requirements which apply to reactive organic compounds.

- 20. CFC-11 (trichlorofluoromethane)
- 21. CFC-12 (dichlorodifluoromethane)
- 22. CFC-113 (1,1,2-trichloro-1,2,2-trifluoroethane)
- 23. CFC-114 (1,2-dichloro 1,1,2,2-tetrafluoroethane)
- 24. CFC-115 (chloropentafluoroethane)
- 25. HCFC-22 (chlorodifluoromethane)
- 26. HCFC-31 (chlorofluoromethane)
- 27. HCFC-123 (1,1,1-trifluoro 2,2-dichloroethane)
- 28. HCFC-123a (1,2-dichloro-1,1,2-trifluoroethane)
- 29. HCFC-124 (2-chloro-1,1,1,2-tetrafluoroethane)
- 30. HCFC-141b (1,1-dichloro 1-fluoroethane)
- 31. HCFC-142b (1-chloro-1,1 difluoroethane)
- 32. HCFC-151a (1-chloro-1-fluoroethane)
- 33. HCFC-225ca (3,3-dichloro-1,1,1,2,2-pentafluoropropane)
- 34. HCFC-225cb (1,3-dichloro-1,1,2,2,3-pentafluoropropane)
- 35. HFC-23 (trifluoromethane)
- 36. HFC-32 (difluoromethane)
- 37. HFC-43-10mee (1,1,1,2,3,4,4,5,5,5-decafluoropentane)
- 38. HFC-125 (pentafluoroethane)
- 39. HFC-134 (1,1,2,2-tetrafluoroethane)
- 40. HFC-134a (1,1,1,2-tetrafluoroethane)
- 41. HFC-143a (1,1,1-trifluoroethane)
- 42. HFC-152a (1,1-difluoroethane)
- 43. HFC-161 (ethylfluoride)
- 44. HFC-227ea (1,1,1,2,3,3,3-heptafluoropropane)
- ~~445.~~ HFC-236ea (1,1,1,2,3,3,3-hexafluoropropane)
- ~~456.~~ HFC-236fa (1,1,1,3,3,3-hexafluoropropane)
- ~~467.~~ HFC-245ca (1,1,2,2,3-pentafluoropropane)
- ~~478.~~ HFC-245ea (1,1,2,3,3-pentafluoropropane)
- ~~489.~~ HFC-245eb (1,1,1,2,3-pentafluoropropane)
- ~~4950.~~ HFC-245fa (1,1,1,3,3-pentafluoropropane)
- ~~501.~~ HFC-365mfc (1,1,1,3,3-pentafluorobutane)
- 52. HFE-7000: n-C₂F₇OCH₃; (1,1,1,2,2,3,3-heptafluoro-3-methoxy-propane)
- ~~543.~~ HFE-7100; (CF₃)₂CF₂OCH₃; (2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane) or C₄F₉OCH₃; (1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane)
- ~~524.~~ HFE-7200; (CF₃)₂CF₂OC₂H₅; (2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane) or C₄F₉OC₂H₅; (1-ethoxy-1,1,2,2,3,3,4,4-nonafluorobutane)

Comment [A5]: EPA’s definition of **volatile organic compounds** in 40 CFR, Part 51.100(s) includes HFC-227ea. The same is true for the other compounds we are adding (52, 55, and 56).

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55. [HFE-7300; \(4\) 1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethyl-pentane](#)
 56. [HFE-7500; \(3-ethoxy- 1,1,1,2,3,4,4,5,5,5,6,6,6-dodecafluoro-2- \(trifluoromethyl\) hexane\)](#)

Rule 202.D.10.1.1 requires an Authority to Construct and Permit to Operate when using more than one gallon per year per stationary source of any one of the following exempt compounds:

- (6) dimethyl carbonate, (37) HFC-43-10mee,
 (12) methyl formate, (50) HFC-245fa,
 (33) HCFC-225ca, (51) HFC-365mfc, or
 (34) HCFC-225cb, (53) HFE-7100 [(CF₃)₂CFCF₂OCH₃ or C₄F₉OC₂H₅]

Comment [A6]: The data is reformatted into two columns with the compound's item number added for ease of reference.

Rule 202.D.10.1.2 requires an Authority to Construct and Permit to Operate when using more than one gallon per year per stationary source of: (19) tertiary-butyl acetate.

The one gallon per year per stationary source limit is a per compound limit for each compound in aggregate for the entire stationary source and includes any amounts of the compound used in mixed or diluted product.

“Reactive Organic Compound Composite Partial Pressure” means the sum of the partial pressures of compounds defined as reactive organic compounds. Reactive organic compound composite pressure shall be calculated as follows:

$$PP_c = \frac{\sum_{i=1}^n (W_i)(VP_i) / MW_i}{W_w / MW_w + \sum_{e=1}^n W_e / MW_e + \sum_{i=1}^n W_i / MW_i}$$

- Where: W_i = Weight of the “i”th reactive organic compound, in grams
 W_w = Weight of water, in grams
 W_e = Weight of the “e”th exempt compound, in grams
 MW_i = Molecular weight of the “i”th reactive organic compound, in grams per grams-mole
 MW_w = Molecular weight of water, in grams per grams-mole
 MW_e = Molecular weight of the “e”th exempt compound, in grams per grams-mole
 PP_c = Reactive organic compound composite partial pressure at 20 degrees Celsius, in millimeters of mercury
 VP_i = Vapor pressure of the “i”th reactive organic compound at 20 degrees Celsius, in millimeters of mercury

[...]

“Scientific Instrument” means an instrument, including the components, assemblies, and subassemblies used in their manufacture, and associated accessories and reagents, that is used for the detection, measurement, analysis, separation, synthesis, or sequencing of various compounds.

[...]

“South Coast Air Quality Management District Method 303-91, “Determination of Exempt Compounds,” August 1996.” means the test method adopted by and in effect by the South Coast Air Quality Management District on [date of amended rule adoption].

“South Coast Air Quality Management District Method 313-91, “Determination of Volatile Organic Compounds by Gas Chromatography-Mass Spectrometry,” June 1993.” means the test method adopted by and in effect by the South Coast Air Quality Management District on [date of amended rule adoption].

[...]

“Temporary Total Enclosure” means any total enclosure that is constructed for the sole purpose of measuring the emissions from an affected source that are not delivered to an emission control device. A

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temporary total enclosure must be constructed and ventilated (through stacks suitable for testing) so that it has minimal impact on the performance of the permanent emission capture system. A temporary total enclosure will be assumed to achieve total capture of fugitive emissions if it meets the requirements found in 40 CFR Section 63.750(g)(4) and if all natural draft openings are at least four duct or hood equivalent diameters away from each exhaust duct or hood. Alternatively, the owner or operator may apply to the **Administrator/Control Officer** for approval of a temporary enclosure on a case-by-case basis.

“Thermal Incinerator” means any device that burns reactive organic compounds or toxic air contaminants in air by direct application of heat. Thermal incinerators are usually equipped with burners, refractory lined chambers, heat recovery equipment, and process controllers.

“Total Enclosure” means any permanent structure that is constructed around a gaseous emission source so that all gaseous pollutants emitted from the source are collected and ducted through a control device, such that 100 percent capture efficiency is achieved. There are no fugitive emissions from a total enclosure. The only openings in a total enclosure are forced makeup air and exhaust ducts and any natural draft openings such as those that allow raw materials to enter and exit the enclosure for processing. All access doors or windows are closed during routine operation of the enclosed source. Brief, occasional openings of such doors or windows to accommodate process equipment adjustments are acceptable, but if such openings are routine or if an access door remains open during the entire operation, the access door must be considered a natural draft opening. The average inward face velocity across the natural draft openings of the enclosure shall be calculated including the area of such access doors. The drying oven itself may be part of the total enclosure. An enclosure that meets the requirements found in 40 CFR Section 63.750(g)(4) is a permanent total enclosure.

[. .]

“Transfer Efficiency” means the ratio of the weight of coating solids adhering to the object being coated to the weight of coating solids used in the application process, expressed as a percentage.

“Waste Solvent Residue” means sludge that may contain dirt, oil, metal particles, and/or other undesirable waste products concentrated after heat distillation of solvent either in a solvent cleaning machine itself or after distillation in a separate still.

[. .]