



Air Pollution Control Board

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October 25, 2018

NOTICE OF WORKSHOPS

The San Diego County Air Pollution Control District (District) will hold three public meetings to present and receive input on draft proposed regulatory updates as summarized below. Comments concerning these draft proposals may be submitted in writing before, or made at, each workshop which are scheduled as follows:

DATE: Wednesday, November 28, 2018
PLACE: San Diego County Air Pollution Control District
Main Conference Room
10124 Old Grove Road
San Diego, CA 92131

1. TIME: 1:00 p.m. to 1:45 p.m. – Federal Permit Requirements

Draft proposed amendments to New Source Review (NSR) Rules 20.1, 20.2, 20.3, and 20.4; Title V Rule 1415 – Permit Process-Public Notification; and Rule 26.0 – Banking of Emission Reduction Credits (ERCs)-General Requirements.

- Correct two deficiencies the U.S. EPA found in their conditional approval of the District’s 2016 NSR rules (see link below to the District’s workshop webpage for details);
- Allow electronic public notifications for NSR and Title V permitting, and for ERCs, in lieu of notifications via newspaper publication; and
- Add applicable requirements for all ozone non-attainment classifications to the NSR rules (text will be published on the District’s workshop webpage prior to the workshop).

If you have questions concerning this draft proposal or wish to submit comments, please contact Jim Swaney at (858) 586-2715 or jim.swaney@sdcounty.ca.gov.

2. TIME: 2:00 p.m. to 2:45 p.m. – District Prohibitory Rules & Permit Exemption Rules

Draft proposed amendments to Rule 11 – Exemptions from Rule 10 Permit Requirements, Rule 67.6.1 – Cold Solvent Cleaning and Stripping Operations, and Rule 67.6.2 – Vapor Degreasing Operations.

Rule 11 is proposed for revision to the following sections to provide clarification and additional permit exemptions:

- (d)(13)(viii) to exempt polyester resin operations with volatile organic compound (VOC) emissions of 150 pounds or less per consecutive 12-month period;

OVER

- (d)(16)(i) to exempt cold solvent cleaning, vapor degreasing, or stripping operations that use materials with a VOC content of 25 grams per liter (g/l) or less;
- (d)(16)(ix) to clarify that the 550-gallon usage exemption for surface preparation and wipe cleaning using VOC-containing materials does not apply to cold solvent cleaning, vapor degreasing, or stripping operations;
- (d)(17)(vi) to clarify that the exemption for mobile transport, delivery, or cargo tanks on vehicles used for delivery of volatile organic liquids does not apply to the transfer of volatile organic liquids from tanks into vehicle fuel tanks; and
- (d)(19)(xxi) to exempt municipal wastewater pump stations that have an annual average actual throughput of less than one million gallons of wastewater per day.

Additionally, Rules 67.6.1 and 67.6.2 are proposed for amendment to exempt cleaning materials with a VOC content of 25 g/l or less.

If you have questions concerning this draft proposal or wish to submit comments, please contact Angela M. Ortega at (858) 586-2753 or angela.ortega@sdcounty.ca.gov.

3. TIME: 3:00 p.m. to 3:45 p.m. – Federal Performance Standards for New Sources

Draft proposed amendments to Regulation X – Standards of Performance for New Stationary Sources (NSPS):

- Repeal 16 outdated District Rules and, in their place, adopt by reference the corresponding federal requirements which are currently applicable;
- Adopt by reference 4 additional federal NSPSs and the current versions of 7 federal NSPSs that were amended since 2009.

In addition to updating Regulation X, the District also proposes amending the procedures for locally adopting new or amended federal NSPSs. As proposed, any new federal NSPS will be submitted to the Air Pollution Control Board for adoption by reference. Any subsequent federal amendments to a previously locally adopted NSPS will be subject to a local public notice process without submittal to the Board for adoption. This action will simplify the rule development process.

If you have any questions concerning this draft proposal or wish to submit comments, please contact Angela M. Ortega at (858) 586-2753 or angela.ortega@sdcounty.ca.gov.

Copies of the draft proposed amendments to these regulations are available on the District's website at http://www.sdapcd.org/content/sdc/apcd/en/Rule_Development/Workshops.html.

The District encourages workshop participants to bring their own copies of the draft proposed rules. Those without internet access may contact Janet McCue at (858) 586-2712 or janet.mccue@sdcounty.ca.gov.

RR:AMO:jlm

RULE 11. EXEMPTIONS FROM RULE 10 PERMIT REQUIREMENTS

(Effective 1/1/69: Rev. Adopted & Effective 10/17/95
Rev. Adopted & Effective 7/30/96
Rev. Adopted & Effective 5/21/97
Rev. Adopted & Effective 11/15/00
Rev. Adopted & Effective 4/25/07
Rev. Adopted 11/09/11 & Effective 5/09/12
Rev. Adopted & Effective 5/11/16
Rev. Adopted & Effective (date of adoption)

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RULE 11. EXEMPTIONS FROM RULE 10 PERMIT REQUIREMENTS

(a) APPLICABILITY

(1) This rule is applicable to any article, machine, equipment, or other contrivance which would otherwise be subject to Rule 10.

(2) This rule shall not exempt equipment, operations, or processes described in Section (d) from meeting all other applicable requirements of these Rules and Regulations, and State and federal regulations, including the National Emission Standards for Hazardous Air Pollutants (NESHAP) and the New Source Performance Standards (NSPS).

(3) This rule shall not apply to any equipment, operation, or process that violates Rule 50 or Rule 51 as determined by the Air Pollution Control Officer. When the Air Pollution Control Officer makes such a determination and written notification is given to the owner or operator, the equipment, operation, or process may thereafter be subject to Rule 10 for a specified time as determined by the Air Pollution Control Officer.

(4) This rule shall not apply to any equipment, operation, or process described in Subsections (d)(2) through (d)(19) that emits more than 100 pounds per day of any one of the following criteria air pollutants: particulate matter (PM₁₀), oxides of nitrogen (NO_x), volatile organic compound (VOC), oxides of sulfur (SO_x), carbon monoxide (CO), or lead (Pb).

(5) Except for equipment specified in Subsection (d)(20)(iii), Section (d) of this rule shall not apply to any equipment, operation, or process that

(i) emits or may emit toxic air contaminants, as defined in Rule 1200, and

(ii) has emissions of toxic air contaminants that, in the absence of any emission control device or limitation on material usage or production, may be expected to exceed any standard specified in Rule 1200 (d)(1)(i), (d)(2), or (d)(3) as determined by the Air Pollution Control Officer. This provision shall not apply to any equipment, operation, or process for which construction or modification, as applicable, commenced prior to November 15, 2000, unless such equipment, operation, or process is subsequently modified in such a manner that increases emissions of one or more toxic air contaminants.

In the event the Air Pollution Control Officer makes a preliminary determination that any standard specified in Rule 1200 (d)(1)(i), (d)(2), or (d)(3) may be exceeded, the Air Pollution Control Officer shall notify the owner or operator in writing and specify the information needed to make a final determination. If the Air Pollution Control Officer makes a final determination that emissions, in the absence of any emission control device or limitation on material usage or production, may be expected to exceed any standard

specified in Rule 1200 (d)(1)(i), (d)(2), or (d)(3), the Air Pollution Control Officer shall notify the owner or operator in writing and include a statement that, as a result, Rule 11(d) does not apply and an Authority to Construct and Permit to Operate are therefore required.

(b) **RESERVED**

(c) **DEFINITIONS**

For the purposes of this rule, unless otherwise noted, the following definitions shall apply:

- (1) **"Abrasive Blasting Cabinet"** means the same as defined in Rule 2.
- (2) **"Abrasive Blasting Room or Booth"** means a structure that includes abrasive blasting equipment, a dust collector and/or recycling system for recovering spent abrasive. The operator blasts from within this structure and the emissions from abrasive blasting operations are vented through a control device. The abrasive blasting room or booth definition does not apply to temporary enclosures including, but not limited to, those at shipyards or inside ships.
- (3) **"Additive Manufacturing (3-D Printing)"** means a process of joining materials to create objects from 3-D model data, usually layer upon layer, as opposed to subtractive manufacturing methodologies. Additive manufacturing processes include, but are not limited to, Direct Metal Laser Sintering, Selective Laser Melting, Selective Laser Sintering, and Direct Laser Melting.
- (4) **"Agricultural Source"** means any equipment, operation, or process, or aggregation thereof, used in the production of crops, or raising of fowl or animals and located on contiguous property under common ownership or control that meets any of the criteria identified in Section 39011.5 of California Health and Safety Code, as it exists on May 11, 2016.
- (5) **"Biotechnology"** means the use of living organisms and/or biological processes often combined with chemical processes to develop products used in a variety of fields such as medicine, agriculture, and food production. Biotechnology industry includes, but is not limited to, medicinal drug manufacturing, peptide synthesis and DNA synthesis.
- (6) **"Brake Horsepower Rating"** means the maximum continuous brake horsepower output rating of the internal reciprocating combustion engine as specified by the engine manufacturer and listed on the engine nameplate or in other documentation establishing the maximum continuous brake horsepower as approved by the Air Pollution Control Officer.
- (7) **"CFR"** means Code of Federal Regulations.
- (8) **"Designated Workstation"** means an assigned area within the stationary source where a specified operation is conducted.

(9) **"Digital Printing Operation"** means an operation that uses a printing device guided by a computer-driven machine to transfer an electronic image to a substrate through the use of inks, toners, or other graphic arts materials. Digital printing operation also includes associated surface preparation, solvent cleaning, and the cleaning of application equipment.

(10) **"Exempt Compounds"** means the same as defined in Rule 2.

(11) **"First-Article Deliverable Product"** means the first product that is produced using research and development equipment and that is delivered to a potential intra-company or external customer for approval. First-article deliverable product shall not exceed one unit of each product per customer unless necessary in order for the customer to obtain statistically significant data required to make a decision on the approval of a new product.

(12) **"Green Material"** means waste material that includes, but is not limited to, yard trimmings, untreated wood wastes, natural fiber products, and construction and demolition wood waste. Green material does not include food material, biosolids, mixed solid waste, material processed from commingled collection, wood containing lead-based paint or wood preservative, mixed construction or mixed demolition debris.

(13) **"Hazardous Air Pollutant (HAP)"** means an air contaminant identified in the Federal Clean Air Act, Title 1, Section 112 (b).

(14) **"Hot Melt Adhesive"** means a thermoplastic adhesive that melts at temperatures above 180°F (82°C), does not contain organic solvents, and sets rapidly upon cooling.

(15) **"Industrial Wastewater Treatment"** means the treatment of spent process water prior to discharging into municipal wastewater system or disposal. Industrial wastewater treatment includes, but is not limited to, dewatering, pH adjustment, precipitation, sludge processing, and gravity separation and/or filtration of the wastewater.

(16) **"Large Commercial Digital Printing Operation"** means a commercial digital printing operation where the print capacity of any individual printer that uses solvent based inks is 1,000 ft²/hr or higher; or an operation where the print capacity of any individual printer that uses water-based or UV inks is 10,000 ft²/hr or higher.

(17) **"Major Stationary Source"** means the same as defined in Rule 20.1.

(18) **"Military Tactical Support Equipment"** means any equipment owned by the U.S. Department of Defense or the National Guard and used in combat, combat support, combat service support, tactical or relief operations, or training for such operations.

(19) **"Operating Day"** means any calendar day during which the specified equipment is operated, or specified operations occur.

(20) **"Organic Solvent"** means any substance that is liquid at standard conditions and contains an organic compound or combination of organic compounds, and that is used as a diluent, thinner, dissolver, viscosity reducer, or cleaning agent, or for other similar purposes. For the purpose of this definition, a reagent is not considered an organic solvent.

(21) **"Pilot Plant Facility"** means a trial assembly of small-scale reaction and processing equipment that is the intermediate stage between laboratory experiment and full-scale operation in the development of a new product and/or process.

(22) **"Portable Emission Unit"** means the same as defined in Rule 20.1.

(23) **"Preservative Oils and Compounds"** means materials which do not contain solids, and are applied to prevent corrosion and/or to provide lubrication.

(24) **"Process Heater"** means any combustion equipment fired with liquid and/or gaseous fuel that transfers heat from the combustion gases to water or process streams. Heaters used for swimming pools, spas, and/or therapy pools shall be considered process heaters. This definition does not include any combustion equipment where the material being heated is in direct contact with the products of combustion, such as furnaces or kilns, or any unfired waste heat recovery heater that is used to recover sensible heat from the exhaust of any combustion equipment.

(25) **"Research and Development (R&D) Equipment"** means equipment that is used to conduct research and develop new or improved processes and/or products, where such equipment is operated by technically trained personnel under the supervision of a research director, and may not be used to manufacture products or byproducts for sale or exchange for commercial profit, other than the first-article deliverable product.

(26) **"Reclaimed Water"** means wastewater that has been treated to remove solids and certain impurities to meet the standards specified in California Code of Regulations Title 22, Division 4, Chapter 3.

(27) **"Stationary Internal Combustion Engine"** means a spark or compression ignited, reciprocating internal combustion engine that is not a portable emission unit.

(28) **"Stationary Source"** means the same as defined in Rule 2.

(29) **"Thermal Spraying Operation"** means one or more of several processes in which metallic or nonmetallic surfacing materials are deposited in a molten or semi-molten condition on a substrate to form a coating. The surfacing material may originate in the form of powder, rod, or wire before it is heated, prior to spraying and deposition. Thermal spraying operations include: detonation gun spraying, flame spraying, high-velocity oxy-fuel spraying, plasma spraying, and twin-wire electric arc spraying.

(30) **"Toxic Air Contaminant"** means the same as defined in Rule 2.

(31) **"Volatile Organic Compound (VOC)"** means the same as defined in Rule 2.

(32) **"Volatile Organic Liquid"** means any organic liquid either having a Reid Vapor Pressure (RVP) greater than 3 pounds per square inch if the American Society for Testing Material International (ASTM) RVP test method is applicable, or having a true vapor pressure greater than 3 pounds per square inch absolute at 100°F if the ASTM RVP test is not applicable.

(33) **"Volatile Organic Solvent"** means an organic solvent with an initial boiling point of less than 400°F (204°C).

(34) **"Wet Screening Operation"** means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

(d) EQUIPMENT, OPERATIONS, OR PROCESSES NOT REQUIRING A PERMIT TO OPERATE

Except as otherwise specified in Subsections (a)(2) through (a)(5), any equipment, operation, or process that is listed below in Subsections (d)(1) through (d)(20), and that meets the stated exemption provision, parameter, requirement, or limitation, is exempt from the requirements of Rule 10. Such equipment, operation, or process shall not be exempt from any otherwise applicable standards in these Rules and Regulation, or applicable State or federal regulations, unless specified as exempt by that rule or regulation.

Any person claiming such an exemption shall provide documentation sufficient to substantiate the applicability of the stated exemption provision, parameter, requirement, or limitation at the request of the Air Pollution Control Officer.

(1) MOBILE SOURCES

(i) Any engine mounted on, within, or incorporated into any vehicle, train, ship, boat, or barge, that is used primarily to provide propulsion, but which may also supply heat, mechanical, hydraulic, or electrical power to that same vehicle, train, ship, boat, or barge. This exemption does not apply to equipment located onboard floating dry docks or equipment used for dredging operations.

(ii) Railway, road, and runway sweepers used respectively for cleaning rail tracks, roadways, and runways, provided the maximum manufacturer's output rating of any auxiliary sweeper engine is 200 brake horsepower or less.

(2) COMBUSTION AND HEAT TRANSFER EQUIPMENT

(i) Any reciprocating internal combustion engine with a brake horsepower rating of less than 50.

(ii) Any engine mounted on, within, or incorporated into any motor vehicle, train, ship, boat, or barge, that is used exclusively to load or unload cargo. For the purposes of this exemption, cargo shall not include the removal or relocation of sand, rock, silt, soil, or other materials from dredging operations.

(iii) Any gas turbine engine that has:

(A) an output power rating of less than 0.3 megawatt (MW), or

(B) a maximum gross heat input rating at International Standards Organization (ISO) Standard Day Conditions of less than 1 million British thermal units (BTU) per hour.

This exemption does not apply to any gas turbine operating on waste-derived gaseous fuel.

(iv) Any boiler, process heater, or steam generator with a manufacturer's maximum gross heat input rating of less than:

(A) 1 million BTU per hour fired with any fuel, or

(B) 5 million BTU per hour fired exclusively with natural gas and/or liquefied petroleum gas.

This exemption does not apply to reciprocating internal combustion or gas turbine engines.

(v) Air heaters with a manufacturer's maximum gross heat input rating of less than 20 million BTU per hour fired exclusively with natural gas and/or liquefied petroleum gas and installed in conjunction with combustor testing in gas turbine test cells.

(vi) Portable aircraft engine test stands constructed before November 4, 1976.

(vii) Back-pack power blowers.

(viii) Orchard or citrus grove heaters.

(ix) Any oven having an internal volume of 27 cubic feet (0.765 cubic meter) or less.

(x) Curing or baking ovens in which no volatile organic solvents or materials containing volatile organic solvents are introduced.

(xi) Any oven used exclusively for the curing, softening, or annealing of plastics.

(xii) Any oven that is an integral part of a process for which a Permit to Operate is not required pursuant to this rule.

(xiii) Any portable internal combustion engine or gas turbine engine used exclusively in conjunction with military tactical support equipment. Such engines shall not be subject to the limitations of Subsections (a)(3) or (a)(4) of this rule. For the purposes of this subsection, portable means carried or moved from one location within a stationary source to another location within the same stationary source, or from one stationary source to another stationary source, in the normal course of operations. Indicia of portability shall include, but are not limited to, wheels, skids, carrying handles, or a dolly, trailer, or vessel.

(xiv) Internal combustion or gas turbine engines used exclusively for purposes of educating students in the operation, maintenance, repair, and rebuilding of such engines provided that each engine or turbine is operated less than 20 hours per calendar year.

(xv) Auxiliary internal combustion reciprocating engines mounted on any authorized emergency vehicle as specified in Section 27156.3 of the California Vehicle Code.

(3) STRUCTURES AND STRUCTURAL MODIFICATIONS

(i) Equipment used exclusively in support of any structure designed for and used exclusively as a dwelling for not more than four families.

(ii) Structural modifications that cannot change the quality, nature, or quantity of air contaminant emissions.

(4) LABORATORY EQUIPMENT AND RELATED OPERATIONS

(i) Laboratory testing equipment, and quality control testing equipment, including associated wipe cleaning, used exclusively for chemical and physical analysis, or quality control.

(ii) Laboratory equipment and laboratory operations conducted at secondary schools, colleges, or universities and used exclusively for instruction or research purposes.

(iii) Vacuum-producing devices used in laboratory or R&D operations.

(iv) Hoods, stacks, or ventilators used in laboratory or R&D operations.

(v) Research and development equipment, including associated wipe cleaning.

(vi) Equipment used to manufacture the following products, provided that the total uncontrolled VOC emissions from all operations specified below do not exceed 5 tons per calendar year:

(A) biotechnology pharmaceutical products for exclusive use in federal Food and Drug Administration (FDA) approved clinical trials, or

(B) biomedical devices and diagnostic kits for exclusive use in FDA approved clinical trials and laboratory failure analysis testing, or

(C) bioagricultural products for exclusive use in field testing required to obtain FDA, Environmental Protection Agency (EPA), United States Department of Agriculture (USDA) and/or California Environmental Protection Agency (Cal-EPA) approval.

All data and/or records necessary to demonstrate the applicability of this exemption shall be maintained on-site for three years and made available to the District upon request.

(vii) Any temporary equipment installed in a pilot plant facility, provided that the total emissions increase from all such temporary equipment does not exceed 10 pounds per day of VOCs. For the purposes of this exemption, temporary equipment means equipment located at a pilot plant facility for a period not exceeding 90 days in any consecutive 12-month period excluding construction and installation periods. It shall be the responsibility of a person claiming this exemption to maintain daily records necessary for the District to determine its applicability.

(5) REPLACEMENT OF EQUIPMENT

Subject to the limitations and requirements stated in this Subsection (d)(5), identical replacement equipment and like-kind replacement equipment as listed below are exempt from the requirements of Rule 10(a). The provisions of this Subsection (d)(5) shall not apply to replacement of equipment pursuant to other requirements of these Rules and Regulations; or replacement of equipment subject to air contaminant control standards specified for replacement equipment; or replacement of equipment in whole or part, that in sum would constitute reconstruction or modification under NSPS or District Regulation X - Standards of Performance for New Stationary Sources, or would constitute a major stationary source or replacement of any stationary or portable compression ignition reciprocating internal combustion engine; or rim seal replacements for bulk gasoline floating roof tanks subject to the Best Available Control Technology (BACT) requirements of Rule 61.1.

(i) Identical replacement in whole or part of any article, machine, equipment or other contrivance for which a Permit to Operate has previously been granted for such equipment. Identical means the same manufacturer, model number, and type.

In order to claim the applicability of Subsection (d)(5)(i) for portable equipment (other than a diesel-fueled portable engine), written notification of the proposed equipment replacement and information identifying the manufacturer, model number, serial number, and type of the item used as a replacement, and information detailing the expected use of the equipment being replaced, must be submitted to the District prior to such replacement.

(ii) Like-kind replacement in whole or part of any article, machine, equipment, or other contrivance where a Permit to Operate has previously been granted for such equipment, and the Air Pollution Control Officer determines that the replacement equipment meets the following requirements:

(A) is identical in function, and

(B) is similar in design, and

(C) the actual air contaminant emissions are the same in nature, and

(D) has a capacity, production rate, and actual air contaminant emissions that are equal to or less than those of the currently permitted equipment.

In order to claim the applicability of Subsection (d)(5)(ii) and prior to replacing any equipment, written notification in the form of an application for permit revision, the information required to make the determinations listed above, and the fees specified in Rule 40 must be submitted to the District.

(6) PLANT SUPPORT EQUIPMENT

The exemptions listed in this Subsection (d)(6) shall not apply to any combustion equipment associated with plant support equipment unless the combustion equipment is also exempt pursuant to Subsection (d)(2) of this rule.

(i) Vacuum cleaning devices used exclusively for housekeeping purposes.

(ii) Equipment used exclusively for comfort air conditioning or comfort ventilation systems, and not designed or used to remove air contaminants generated by or released from specific equipment.

(iii) Refrigeration units except those used as, or in conjunction with, air pollution control equipment.

(iv) Equipment used exclusively to compress or hold dry natural gas.

(v) Vacuum-producing devices used in connection with other equipment not requiring a Permit to Operate pursuant to this rule.

(vi) Equipment used exclusively for space heating, other than boilers.

(vii) Water cooling towers and water cooling ponds used for evaporative cooling of water, including reclaimed water, utilized solely in heat transfer processes but not used for evaporative cooling of:

(A) process water (e.g., contaminated water or industrial wastewater), or

(B) water from barometric jets or barometric condensers.

(7) METALLURGICAL PROCESSING EQUIPMENT - GENERAL

(i) Non-automated soldering equipment, such as handheld soldering irons and guns.

(ii) Solder-screen processes and associated soldering ovens that use a process similar to silk-screening in order to apply the solder paste.

(iii) Each solder leveler, hydrosqueegee, wave solder machine or drag solder machine that emits less than an average of 5 pounds of VOCs per operating day for each calendar month. The number of operating days per calendar month, monthly purchase records, and daily or monthly records of material usage shall be maintained on-site for three years and be made available to the District upon request.

(iv) Brazing and welding equipment, including arc welding equipment and laser welding.

(v) Molds used for the casting of metals.

(vi) Foundry sand mold forming equipment. This exemption does not apply if heat, sulfur dioxide, or VOCs are used.

(vii) Forming equipment used exclusively for forging, rolling, or drawing of metals.

(viii) Thermal spraying operations where materials sprayed contain no cadmium, chromium, copper, lead, manganese or nickel, and provided the maximum amount of material sprayed is less than 20 pounds per day at the stationary source.

(ix) Tumblers used for the cleaning or deburring of metal products without abrasive blasting.

(x) Shell-core and shell-mold manufacturing machines.

(xi) Extrusion equipment used exclusively for extruding metals or minerals. This exemption does not apply to coking extrusion equipment or processes that manufacture products containing greater than 1% asbestos by weight.

(xii) Shot peening operations where only steel shot is employed and no surface material such as scale, rust, or old paint is removed.

(xiii) Chemical milling of titanium or niobium (columbium) and/or their alloys using nitric and/or hydrofluoric acid at milling bath temperatures below 110°F (43°C).

(xiv) Equipment used for anodizing, plating, polishing, stripping, or etching, if the VOC content of the aqueous material does not exceed 10% by weight. This exemption does not apply to acid chemical milling, chrome plating, chromic acid anodizing, chromate conversion coating processes, or the stripping of chromium. This exemption also does not apply to copper etching or copper plating operations which use formaldehyde, ammonium hydroxide, ammonium chloride, or solutions of nitric, hydrofluoric, and/or hydrochloric acids which contain more than 17% acid concentration by weight.

(xv) Oil quenching tanks that use less than 20 gallons per year of make-up oil. Monthly purchase records and daily or monthly usage records of all materials added must be maintained on-site to claim applicability of this exemption.

(xvi) Salt bath quenching tanks where no chromium containing compounds are added to the tank.

(8) METALLURGICAL, GLASS, AND CERAMIC PROCESSING EQUIPMENT - USING FURNACES, KILNS, AND OVENS

(i) Crucible furnaces, pot furnaces, or induction furnaces, each with a maximum rated capacity of less than 450 cubic inches of any molten metal.

(ii) Crucible furnaces, pot furnaces, or induction furnaces each with a maximum rated capacity of 2,500 cubic inches or less, or 950 pounds or less, and where

(A) no sweating or distilling is conducted, and

(B) only non-ferrous metals, except lead and yellow brass, are poured or held in a molten state.

Records of the types of all metal poured from such furnaces shall be maintained on-site for three years and be made available to the District upon request. This exemption does not apply if alloying elements of arsenic, beryllium, cadmium, chromium, lead, and/or nickel are utilized in such furnaces.

(iii) Equipment used exclusively for the sintering of glass or metals (excluding lead), where no coke or limestone is used.

(iv) Equipment used exclusively for heating metals immediately prior to forging, pressing, rolling, or drawing.

(v) Any oven used exclusively for heat treating glass or metal if the materials are not heated to a molten state, and the oven is heated exclusively by natural gas, liquefied petroleum gas, and/or electricity.

(vi) Atmosphere generators and vacuum producing devices used in connection with metal heat treating processes.

(vii) Die casting machines.

(viii) Kilns used exclusively for firing ceramic ware, heated exclusively with natural gas, liquefied petroleum gas, and/or electricity.

(9) ABRASIVE BLASTING EQUIPMENT

The exemptions listed in this Subsection (d)(9) shall not apply to any combustion equipment associated with abrasive blasting equipment unless the associated combustion equipment is also exempt pursuant to Subsection (d)(2) of this rule.

(i) Abrasive blasting equipment using a suspension of abrasive in water.

(ii) Abrasive blasting cabinets that are vented through a control device into the building where such cabinets are located.

(iii) Robotically-operated enclosed abrasive blasting equipment that emits less than 5 pounds of particulate matter per day, operates at a negative pressure, and is vented through a control device into the building where it is located.

(iv) Abrasive blasting equipment or pots with a manufacturer's sand capacity rating of less than 100 pounds (45.4 kg), or 1 cubic foot or less. This exemption does not apply to pots used in an abrasive blasting room or booth, or to abrasive blasting cabinets.

(10) MACHINING EQUIPMENT

(i) Equipment used for buffing, polishing, carving, cutting, deburring, drilling, machining, routing, shearing, sanding, sawing, surface grinding, or turning of: ceramic artwork, ceramic precision parts, glass, leather, metal, rubber, fiberboard, masonry, or non-fiberglass reinforced plastic. This exemption does not apply to tire buffers.

- (ii) Wet-jet devices used to cut fiberglass reinforced plastic.
- (iii) Portable handheld equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning of fiberglass reinforced plastic, when not used at a designated workstation, booth, or room.
- (iv) Equipment used for carving, cutting, drilling, surface grinding, planing, routing, sanding, sawing, shredding, or turning of wood.
- (v) Tub grinders and trommel screens used for processing green material. This exemption does not apply to any associated combustion equipment unless such equipment is also exempt pursuant to Subsection (d)(2) of this rule.
- (vi) Equipment used for the pressing or storing of sawdust, wood chips, or wood shavings.
- (vii) Equipment used exclusively to mill or grind coatings or molding compounds where all materials introduced are in a paste form and no volatile organic solvents are used.
- (viii) Equipment used for buffing, polishing, carving, cutting, deburring, drilling, machining, routing, shearing, sanding, sawing, or surface grinding of fiberglass or calcium silicate parts that are exclusively vented through a control device that exhausts inside an enclosed building where such equipment is located.

(11) PRINTING AND REPRODUCTION EQUIPMENT AND OPERATIONS

- (i) Any graphic arts operation or group of graphic arts operations located at a stationary source, that emit less than an average of 15 pounds of VOCs per operating day for each calendar month from all such operations. All records necessary to calculate average daily VOC emissions, such as emission factors or mix ratios, VOC content of each material used, number of operating days per month, and daily or monthly records of material usage, shall be maintained on-site for three years and be made available to the District upon request.
- (ii) Inkjet and laser printing equipment.
- (iii) Digital printing operations where the print capacity of any individual printer which uses solvent based inks is less than 1,000 ft²/hr, or an operation where the print capacity of any individual printer which uses water-based or UV inks is less than 10,000 ft²/hr.
- (iv) Large commercial digital printing operations, provided that the records specified in Rule 67.16(f) for these operations are maintained.

(v) Ink cartridge filling, refilling, and/or refurbishing operations.

(12) FOOD PROCESSING AND FOOD PREPARATION EQUIPMENT

(i) Equipment used exclusively to grind, blend, or package tea, cocoa, spices, dried flowers, or roasted coffee.

(ii) Equipment located at eating establishments that is used for preparing food for human consumption at the same establishment. This exemption does not apply to boilers or coffee roasting equipment.

(iii) Coffee roasting equipment with a maximum capacity of 11 pounds (5 kg) or less.

(iv) Any bakery oven that is located at a stationary source where the combined rated heat input capacity of all bakery ovens, excluding ovens subject to Subsection (d)(12)(v) below, is less than 2 million BTU per hour.

(v) Any bakery oven used exclusively to bake non-yeast-leavened products.

(vi) Equipment used to crush and/or ferment grapes to produce wine.

(vii) Equipment used to brew beer at breweries that produce less than 100,000 barrels (3.1 million gallons) of beer per calendar year and associated equipment cleaning. This exemption does not apply to boilers or silos.

(viii) Smokehouses used for preparing food.

(13) PLASTICS, FOAM, AND RUBBER PROCESSING EQUIPMENT OR OPERATIONS

(i) Extrusion equipment used exclusively for extruding rubber products or plastics where no organic additives are present.

(ii) Equipment used for compression molding and/or injection molding of plastics.

(iii) Mixers, roll mills, and calenders for rubber or plastics, where no material in powder form is added and no volatile organic solvents are used.

(iv) Equipment used exclusively for conveying and storing plastic materials.

(v) Foam manufacturing or foam application operations that emit less than an average of 5 pounds of VOCs per operating day for each calendar month. All records necessary to calculate average daily VOC emissions, such as emission factors, VOC content of each material used, number of operating days per calendar month, and daily

or monthly records of material usage, shall be maintained on-site for three years and be made available to the District upon request.

(vi) Plastic manufacturing or fabrication operations, including reinforced plastic fabrication operations using epoxy that emit less than an average of 5 pounds of VOCs per operating day for each calendar month. All records necessary to calculate average daily VOC emissions, such as emission factors, VOC content of each material used, number of operating days per calendar month, and daily or monthly records of material usage, shall be maintained on-site for three years and be made available to the District upon request.

(vii) Polyester resin operations using less than 20 gallons of polyester resin materials per month. Daily or monthly records of material usage shall be maintained on-site for three years and be made available to the District upon request.

(viii) Any polyester resin operation (portable or stationary) where the VOC emissions from the application of polyester resin materials are 150 pounds or less per consecutive 12-month period. All records necessary to calculate VOC emissions, such as VOC content of each material applied, monomer content, and daily or monthly usage records of such materials must be maintained on-site for three years to claim applicability of this exemption.

~~(viii-ix)~~ Hot wire cutting of expanded polystyrene foam.

(14) MIXING, BLENDING, AND PACKAGING EQUIPMENT

(i) Dry batch mixers with a rated working capacity of 0.5 cubic yards or less, where material is added in a dry form prior to the introduction of a subsequent liquid fraction or where no liquid fraction is added.

(ii) Wet batch mixers with a rated working capacity of 1 cubic yard or less, where no volatile organic solvents are used.

(iii) Equipment used exclusively for the manufacture of water emulsions of asphalt, greases, oils, or waxes.

(iv) Equipment used exclusively for the packaging of lubricants or greases.

(v) Equipment used at ambient temperatures exclusively for mixing and blending materials to make water-based adhesives.

(vi) Any coating and/or ink manufacturing operations located at a stationary source that emit less than an average of 15 pounds of VOCs per operating day for

each calendar month from all such operations. All records necessary to calculate average daily VOC emissions, such as emission factors, VOC content of each material used, number of operating days per calendar month, and daily or monthly records of material usage, shall be maintained on-site for three years and be made available to the District upon request.

(15) COATING AND ADHESIVE APPLICATION EQUIPMENT AND OPERATIONS

(i) Powder coating operations where less than 0.5 gallons per day of any surface preparation or cleaning material containing VOCs are used. Monthly purchase and daily or monthly usage records of surface preparation and cleaning materials shall be maintained on-site for three years and made available to the District upon request. This exemption does not apply to metallizing gun operations.

(ii) Application equipment and processes used exclusively to apply coatings and/or adhesive materials to stationary structures and/or their appurtenances at the site of installation, to portable buildings including mobile homes at the site of installation, to pavement, or to curbs. This exemption does not apply to application equipment and processes where coatings or adhesive materials are applied in off-site shops or to non-stationary structures such as airplanes, ships, boats, railcars, and automobiles.

(iii) Any coating or adhesive materials application operation (portable or stationary) where 20 gallons or less of liquid coatings or adhesive materials are applied per consecutive 12-month period. Monthly purchase records and daily or monthly usage records of all coatings or adhesive materials applied must be maintained on-site for three years to claim applicability of this exemption. The volume of materials applied using non-refillable handheld aerosol spray containers shall not be included when determining the applicability of this exemption.

(iv) Any coating or adhesive materials application operation (portable or stationary) where the VOC emissions from the application of liquid coatings or adhesive materials are 150 pounds or less per consecutive 12-month period. All records necessary to calculate VOC emissions, such as VOC content of each coating or adhesive material applied and daily or monthly usage records of such materials must be maintained on-site for three years to claim applicability of this exemption. The volume or VOC content of materials applied using non-refillable handheld aerosol spray containers shall not be included when determining the applicability of this exemption.

(v) Chromate conversion coating processes where coatings are applied exclusively by brush, roller, or marking pen.

(vi) Coating operations that exclusively use non-refillable handheld aerosol spray containers.

(vii) The application of coatings outside of a defined application station that are necessary to cover minor imperfections or repair minor mechanical damage incurred prior to intended use.

(viii) Coating operations located at primary or secondary schools and used exclusively for instruction.

(ix) Coating operations located at schools (i.e., primary, secondary, or schools of higher education) and used exclusively for student theatrical productions or art instruction.

(x) Liquid surface coating operations that exclusively use hand-held brushes to apply wet fastener primer coatings from containers that are 8 ounces or less in size.

(xi) Liquid surface coating operations that exclusively use air brushes with a coating capacity of 2 ounces or less.

(xii) Hot melt adhesive application equipment.

(xiii) The application of coatings outside of a designated workstation that is necessary for the maintenance of stationary equipment.

(16) SOLVENT APPLICATION EQUIPMENT AND OPERATIONS

(i) Cold solvent cleaning or stripping operations and/or vapor degreasing operations that exclusively utilize ~~water-based materials with a VOC content that does not exceed of 50-25 grams per liter (g/l) (0.21 lbs/gal) of material or less, as applied used.~~ For the purposes of this exemption, a water-based cleaning solvent is ~~any solvent that consists only of water and VOC and does not contain exempt compounds.~~

(ii) Cold solvent cleaning dip tanks, vapor degreasers, and paint stripping tanks:

(A) with a liquid surface area of 1 square foot or less, or

(B) with a maximum capacity of 1 gallon or less.

(iii) Cold solvent cleaning remote reservoirs with a sink cross-sectional area of 1 square foot (0.09 square meters) or less.

(iv) Batch-type waste solvent recovery stills for on-site recovery of waste solvent with a maximum solvent usage of 350 gallons per day, provided the still is

equipped with a device that shuts off the heating system if the solvent vapor condenser is not operating properly.

(v) Metal inspection tanks that:

(A) have a liquid surface area of less than 5 square feet, or

(B) do not use volatile organic solvents, or

(C) are not equipped with spray type flow devices or a means of solvent agitation.

(vi) Metal inspection spraying operations where no materials applied contain volatile organic compounds.

(vii) Cold solvent degreasers used exclusively for educational purposes.

(viii) Golf grip application stations that exclusively use liquid materials with an initial boiling point of 450°F (232°C), or greater.

(ix) Surface preparation or solvent cleaning, including wipe cleaning:

(A) for quality control or quality assurance purposes, or

(B) using non-refillable handheld aerosol spray containers, or

(C) for routine janitorial maintenance, including graffiti removal or

(D) performed in conjunction with welding of 5XXX series aluminum structures for Navy ships and in accordance with quality assurance standards for such structures, or

(E) not associated with any permitted operation, provided:

(1) the cleaning materials have a VOC content of 25 grams per liter (0.21 lbs/gal), or less, as used, or

(2) the uncontrolled VOC emissions from all such cleaning operations located at the stationary source do not exceed 3,650 pounds per consecutive 12-months, or the total purchase or usage of solvents for such cleaning operations does not exceed 550 gallons per consecutive 12-months. The volume of materials applied from operations specified in Subsections (d)(16)(ix)(A) through (E)(1) above shall not be included when determining the applicability of this exemption. All data and/or records necessary to demonstrate that this exemption is applicable shall

be maintained on-site for three years and made available to the District upon request.

Subsection (d)(16)(ix)(E) does not apply to cold solvent cleaning or stripping operations and/or vapor degreasing operations.

(x) Asbestos mastic removal operations using organic solvents provided the total VOC vapor pressure of the solvent is 0.2 mm Hg or less, at 20°C (68°F).

(17) STORAGE AND TRANSFER EQUIPMENT

(i) Stationary equipment used exclusively to store and/or transfer liquid organic compounds that are not volatile organic liquids.

(ii) Stationary storage tanks for volatile organic liquids with a capacity of less than 250 gallons and associated equipment used exclusively to transfer materials into such tanks.

(iii) Equipment used exclusively to store and/or transfer organic solvents that are not used as fuels.

(iv) Equipment used exclusively to store and/or transfer natural gas, butane, or propane when not mixed with other volatile organic liquids, other than odorants.

(v) Equipment used exclusively to store and/or transfer fuels that are used exclusively as a source of fuel for wind machines used for agricultural purposes.

(vi) Mobile transport, delivery, or cargo tanks on vehicles used for the delivery of volatile organic liquids. This exemption does not apply to asphalt tankers used to transport and transfer hot asphalt used for roofing applications. This exemption also does not apply to the transfer of volatile organic liquids into vehicle fuel tanks.

(vii) Equipment used to transfer fuel to and from amphibious ships for maintenance purposes, provided total annual transfers do not exceed 60,000 gallons per year at a stationary source.

(viii) Equipment used exclusively to store and/or transfer liquid soaps, liquid detergents, vegetable oils, fatty acids, fatty esters, fatty alcohols, or waxes, and wax emulsions.

(ix) Pressurized tanks used to store inorganic or halogenated organic gases and associated equipment used exclusively to transfer materials into such tanks.

(18) DRYCLEANING, LAUNDRY EQUIPMENT, AND FABRIC RELATED OPERATIONS

The exemptions listed in this Subsection (d)(18) shall not apply to any operation that uses perchloroethylene (perc) as a dry cleaning solvent.

(i) Non-immersion dry cleaning equipment that uses water or exempt compounds as the cleaning solvent, provided that the VOC content of detergents and additives used does not exceed 50 grams per liter.

(ii) Lint traps used exclusively in conjunction with dry cleaning tumblers.

(iii) Wastewater processing units associated with dry cleaning operations using halogenated compounds, provided the concentration of halogenated compounds in the water being evaporated in the unit does not exceed 400 parts per million (by weight).

(iv) Laundry dryers, extractors, or tumblers used for fabrics cleaned only with solutions of bleach or detergents, provided that the VOC content of detergents and additives used does not exceed 50 grams per liter. This exemption does not apply to equipment used for previously VOC-laden materials such as rags, cloths, etc.

(v) Industrial wet cleaning equipment that uses water or exempt compounds as the cleaning solvent, provided that the VOC content of detergents and additives used does not exceed 50 grams per liter. This exemption does not apply to equipment cleaning VOC-laden materials such as rags, cloths, etc.

(vi) Equipment, including dryers, used exclusively for printing, dyeing, stripping, or bleaching of textiles, provided that the VOC content of detergents and additives used does not exceed 50 grams per liter.

(vii) Industrial laundering equipment that uses liquid carbon dioxide as the cleaning solvent, provided that the VOC content of detergents and additives used does not exceed 50 grams per liter.

(19) MISCELLANEOUS EQUIPMENT AND OPERATIONS

(i) Air pollution control equipment used exclusively to reduce

(A) emissions from any article, machine, equipment, process, or contrivance not required to have a Permit to Operate; or

(B) emissions generated during the draining and degassing of stationary floating roof gasoline storage tanks provided that a written authorization from the Air Pollution Control Officer to conduct the draining and degassing is obtained pursuant to Rule 61.1.

- (ii) Repairs or maintenance not involving structural changes to any equipment for which a Permit to Operate has been granted.
- (iii) Roofing kettles (used to heat asphalt), each with a capacity of 85 gallons or less.
- (iv) Paper shredders and disintegrators, each with a maximum throughput capacity not to exceed 600 pounds per hour, either as rated by the manufacturer or as stated in writing by the manufacturer for the current configuration, and the associated conveying systems and baling equipment.
- (v) Alkaline chemical milling equipment:
 - (A) used exclusively for the cleaning of internal combustion engine parts, or
 - (B) for which construction or installation commenced prior to March 27, 1990.
- (vi) Portable conveyors (belt or screw type) where there is no screening.
- (vii) Fire extinguishing equipment using halons.
- (viii) Equipment used exclusively for the purposes of:
 - (A) flash-over fire fighting training, or
 - (B) hand-held fire extinguisher training operations.
- (ix) Equipment used exclusively for bonding lining to brake shoes, where no volatile organic solvents are used.
- (x) Equipment used exclusively to liquefy or separate oxygen, nitrogen, or the inert gases from air.
- (xi) Any operation producing or blending materials for use in cosmetic, pharmaceutical or biotechnology products and/or manufacturing cosmetic, pharmaceutical or biotechnology products by chemical processes, that emit less than an average of 15 pounds of uncontrolled VOC per operating day for each calendar month from all phases of all such operations located at a single stationary source. All records necessary to calculate average daily VOC emissions, such as emission factors, VOC content of each material used, number of operating days per calendar month, and daily or monthly records of material usage, shall be maintained on-site for three years and be made available to the District upon request.
- (xii) Equipment used for hydraulic or hydrostatic testing.

(xiii) Ethylene oxide sterilizing processes that use less than 5 pounds of ethylene oxide per calendar year. Purchase records and records of monthly ethylene oxide usage shall be maintained on-site for three years and be made available to the District upon request.

(xiv) Sterilizers or autoclaves using only steam or hydrogen peroxide.

(xv) Nail salon operations.

(xvi) Equipment used exclusively for the melting or applying wax where no volatile organic solvents are used.

(xvii) Aerosol can puncturing or crushing operations that use:

(A) a closed loop recovery system that emits no air contaminants, or

(B) a recovery system that vents all emissions through a properly operated and maintained carbon canister, provided not more than 500 cans are processed through the equipment per day. Throughput records of the number of cans processed shall be maintained on-site for three years and be made available to the District upon request.

(xviii) Any article, machine, equipment, or contrivance that emits airborne radioactive materials in concentrations above the natural radioactive background concentration in air in the form of dusts, fumes, smoke, mists, liquids, vapors, or gases. This exemption does not apply to incinerators or boilers.

Atomic energy development and radiation protection are controlled by the State of California to the extent it has jurisdiction thereof, in accordance with the advice and recommendations made to the Governor by the Advisory Council on atomic energy development and radiation protection. Such development and protection are fully regulated by the Nuclear Regulatory Commission to the extent that such authority has not been delegated to the states.

(xix) Any other piece of equipment or operation not covered by other subsections that has an uncontrolled emission rate of each criteria pollutant of 2 pounds or less per day, or of 75 pounds or less per year. All data and/or records necessary to demonstrate that this exemption is applicable shall be maintained on-site for three years and made available to the District upon request.

(xx) Equipment approved for use by the EPA for recovering and/or recycling chlorofluorocarbons (CFCs) or alternative fluorocarbons.

(xxi) Municipal wastewater treatment facilities, and municipal water reclamation facilities, ~~and municipal wastewater pump stations~~ each with a design

throughput capacity of less than one million gallons of wastewater per day.

Municipal wastewater pump stations with an annual average actual throughput of less than one million gallons of wastewater per day. Records of daily throughput shall be maintained on-site for three years and be made available to the District upon request.

(xxii) Industrial wastewater treatment that:

(A) does not use processes designed to remove or destroy VOCs, or

(B) if such processes are used, the uncontrolled VOC emissions do not exceed an average of 5 pounds per day from all such treatment at the stationary source.

(xxiii) Sludge processing operations at municipal wastewater treatment facilities each with a design throughput capacity of less than one million gallons of wastewater per day.

(xxiv) Smoke generating equipment in training sessions conducted by government agencies for the purpose of certifying persons to evaluate visible emissions for compliance with State law or District Rules and Regulations.

(xxv) Smoke generating equipment used for training military personnel and smoke generating equipment used for the testing of military equipment by the Department of Defense.

(xxvi) Agricultural sources at a stationary source that, in aggregate, produce actual emissions less than one-half of any applicable emission threshold for a major source in the District. For the purposes of determining permitting applicability, fugitive emissions, except fugitive dust emissions, are included in determining aggregate emissions. This exemption shall not apply to an agricultural source required to obtain a Title V permit pursuant to Regulation XIV (Title V Operating Permits).

(xxvii) Fuel cells used in power and/or heat generating equipment that are certified under California Air Resources Board's Distributed Generation Program or meet the emission standards of that program.

(xxviii) Operations that exclusively use preservative oils and compounds; lubricants, including solid film lubricants; greases or waxes.

(xxix) Ozone generators with a generation capacity of less than 1,000 grams of ozone per hour.

(xxx) Site assessment for soil and/or groundwater remediation projects, provided that all of the following conditions are met:

(A) the sole purpose of the site assessment is to determine the extent of the contamination and the VOC concentrations in the soil and/or groundwater in order to design the appropriate collection and control equipment for the remediation project; and

(B) the site assessment is conducted for no more than 30 cumulative days within a calendar year. A record of the number of operating days must be maintained with the equipment for the duration of the site assessment; and

(C) the collected soil, vapor or groundwater is routed through emission control equipment.

This exemption does not apply to any associated combustion equipment unless such equipment is also exempt pursuant to Subsection (d)(2) of this rule.

(xxxix) Soil, sediment, air or groundwater monitoring, and installation of associated wells, performed to meet the requirements of other regulatory agencies.

(xxxixii) Any underground building ventilation system, sub-slab depressurization system, or soil/vapor intrusion mitigation associated with soil, vapor or groundwater that is not required to be remediated by any other regulatory agency.

(xxxixiii) Additive manufacturing (3-D printing) equipment.

(xxxixiv) Except as otherwise provided in Subsection (d)(16)(x), asbestos removal equipment and operations subject to 40 CFR Part 61, Subpart M – National Emission Standards for Asbestos.

(xxxixv) Wet screening operations.

(20) REGISTERED EQUIPMENT

(i) Any portable equipment that is registered in accordance with District Rule 12.1. This exemption does not apply to any equipment while in use for screening of soils in contaminated soil remediation projects.

(ii) Any emission unit registered in accordance with District Rule 12.

(iii) Any portable equipment registered in accordance with the Statewide Portable Equipment Registration Program adopted pursuant to California Health and Safety Code Section 41750, et seq., except in circumstances specified in that program (California Code of Regulations, Title 13, §2451 and §2457).

- (e) **RESERVED**
- (f) **RESERVED**
- (g) **TEST METHODS**

The following test methods will be used for compliance verification purposes.

(1) The VOC content of coating and adhesive materials containing more than 50 grams of VOC per liter shall be determined by the Environmental Protection Agency (EPA) Reference Method 24 (40 CFR Part 60, Appendix A, Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings), September 1995, or by the South Coast Air Quality Management District (SCAQMD) Method 304-91 (Determination of Volatile Organic Compounds in Various Materials), February 1996.

(2) The VOC content of surface preparation or cleaning materials containing 50 grams of VOC per liter or less, subject to the requirements of Subsection (d)(16)(i) and (ix), shall be determined by SCAQMD Method 313-91 (Determination of Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry), February 1997, or by SCAQMD Method 308-91 (Quantitation of Compounds by Gas Chromatography), February 1993.

(3) The initial boiling point of materials subject to this rule shall be determined in accordance with ASTM Standard Test Method D1078-11 (Standard Test Method for Distillation Range of Volatile Organic Liquids), or its most current version.

(4) Calculation of total VOC vapor pressure for materials subject to this rule shall be conducted in accordance with the District's "SD 1, Procedures for Estimating the Vapor Pressure of VOC Mixtures," June 2004. If the vapor pressure of the liquid mixture, as calculated by this procedure, exceeds the limits specified, the vapor pressure shall be determined in accordance with ASTM Standard Test Method D2879-10 (Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope), or its most current version.

(5) Reid Vapor Pressure pursuant to Subsections (c)(32) and (d)(17) of this rule shall be measured in accordance with ASTM Standard Test Method D323-08(2014) (Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method)), or its most current version.

(6) Concentration of halogenated compounds in water pursuant to Subsection (d)(18)(iii) shall be measured in accordance with EPA Publication SW-846 Test Method 8021B (Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and Electrolytic Conductivity Detectors), July 2014.

(h) **COMPLIANCE SCHEDULE**

Any person operating existing equipment previously exempt from Rule 10 permit requirements pursuant to the version of Rule 11 existing prior to May 11, 2016, and that is no longer exempt from Rule 10 permit requirements pursuant to this rule, shall submit an application for a permit to operate such equipment by May 11, 2017.

RULE 67.6.1 COLD SOLVENT CLEANING AND STRIPPING OPERATIONS
(Adopted & Effective 5/23/07; Rev. Effective (date of adoption))

(a) **APPLICABILITY**

(1) Except as provided in Section (b), this rule is applicable to all cold solvent cleaning and all stripping operations.

(2) Any cleaning of application equipment is not subject to this rule.

(3) Any dry cleaning operation subject to or exempt from the *Airborne Toxic Control Measure for Emissions of Perchloroethylene from Dry Cleaning Operations* or subject to or exempt from Rule 67.2 (Dry Cleaning Equipment Using Petroleum Based Solvents) is not subject to this rule.

(4) Wipe cleaning operations are not subject to this rule.

(5) Rule 66.1 (Miscellaneous Surface Coating Operations and Other Processes Emitting Volatile Organic Compounds) shall not apply to any cold solvent cleaning or stripping operation.

(b) **EXEMPTIONS**

(1) This rule shall not apply to the following:

(i) Non-immersion stripping operations subject to or exempt from Rules 67.9 (Aerospace Coating Operations); or 67.11 (Wood Products Coating Operations); ~~or 67.11.1.~~

(ii) Solvent cleaning operations regulated by the 40 CFR Part 63, Subpart T National Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning; ~~40 CFR Part 63, Subpart T.~~

(iii) Cold solvent cleaning or stripping operations conducted in any cold solvent tank or stripping tank with a liquid surface area of one square foot (0.09 square meters) or less, or with a capacity of one gallon (3.8 liters) or less.

(iv) Cold solvent cleaning operation conducted in any remote reservoir with a capacity of 1 gallon (3.8 liters) or less.

(v) Cold solvent degreasers used exclusively for educational purposes. This exemption does not apply to degreasers used for other purposes at an educational institution.

(vi) ~~Except for requirements for waste solvent disposal in Subsections (d)(4)(xii) or (d)(6)(x), as applicable, e~~Cold solvent cleaning or stripping operations that exclusively utilize ~~water-based~~ materials with a volatile organic compound (VOC) content of ~~50-25~~ grams per liter (g/l) ~~of material (0.42 pounds per gallon-0.21 lbs/gal) of material~~ or less, as used.

It shall be the responsibility of any person conducting such operations to keep a current list of all cleaning materials and the VOC content of each material, as ~~applied~~used, to substantiate this exemption.

(2) Subsection (d)(1) shall not apply to cold solvent cleaning of electronic components, electrical components, medical devices, aerospace components, or precision optics components.

(c) **DEFINITIONS**

(1) **"Aerospace Component"** means any raw material, partial or completed fabricated part, assembly of parts, or completed unit of any aircraft, helicopter, missile, or space vehicle, including mockups, test panels and prototypes.

(2) **"Airless/Air-Tight Cleaning System"** means a system that consists of a sealed cold solvent cleaner and the devices to condense and recover solvent and emission control devices to remove solvent from all gas streams that vent to the atmosphere. The system must have no open solvent-air interface, and be designed and operated in such a manner as to prevent the discharge or leakage of solvent emissions to the atmosphere during all cleaning and drying operations.

(3) **"Application Equipment"** means equipment used to apply coatings, inks, adhesives, or resins including, but not limited to: spray guns, rollers, brushes, and printing presses.

(4) **"Batch-loaded Solvent Cleaner"** means a degreaser in which any material is placed in solvent for cleaning and removed as a single batch after the cleaning is finished. This does not include remote reservoir cleaners.

(5) **"CFR"** means Code of Federal Regulations.

(6) **"Cold Solvent Cleaning (Degreasing) Operation"** means any solvent cleaning that is conducted in a tank, drum, or other container and that uses non-boiling solvent to remove contaminants.

(7) **"Cured"** means the coating, ink, adhesive, or resin is dry to the touch.

(8) **"Degreaser"** means a tank, drum, or other container in which objects to be cleaned are exposed to a solvent, in order to remove contaminants. This includes batch-loaded solvent cleaners and remote reservoir cleaners.

(9) **"Electrical Components"** means internal components such as wires, windings, stators, rotors, magnets, contacts, relays, energizers, and connections in an apparatus that generates or transmits electrical energy including, but not limited to, generators, transformers, and electric motors.

(10) **"Electronic Components"** means components or assemblies of components including, but not limited to, circuit card assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, and other electrical fixtures, except for the cabinet in which the components are to be housed.

~~(11) **"Exempt Compounds"** means the same as defined in Rule 2.~~

~~(12) **"Existing Cold Solvent Cleaning or Stripping Operation"** means any cold solvent cleaning or stripping operation that is not new.~~

~~(13)~~ **"Freeboard Height"** means:

(i) For batch-loaded solvent cleaners, the distance from the solvent-air interface to the top of the degreaser tank, based on inside tank dimensions.

(ii) For remote reservoir cleaners, the height from the bottom of the sink or work area to the top of the sink or work area.

~~(14)~~ **"Freeboard Ratio"** means the freeboard height divided by the smaller of the interior length or width of the degreaser tank.

~~(15)~~ **"Liquid Leak"** means any visible leak of a VOC-containing liquid at a rate in excess of three drops per minute.

~~(16)~~ **"Liquid Surface Area"** means the area of interface between the liquid solvent available for dipping and the air which is contiguous with the outside of the solvent degreaser or stripping tank.

~~(17)~~ **"Medical Device"** means an instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article including any component or accessory, that is intended for use in the diagnosis of disease or other conditions or in the cure, mitigation, treatment, or prevention of disease, or is intended to affect the structure or any function of the body.

~~(18)~~ **"New Cold Solvent Cleaning or Stripping Operation"** means any cold solvent cleaning or stripping operation for which a complete application for an Authority to Construct in San Diego County was submitted after *(date of adoption)*.

~~(1917)~~ **"Precision Optics Components"** means the components used to create high resolution images in optical devices. This does not include eye glasses.

~~(2018)~~ **"Remote Reservoir Cleaner"** means a degreaser that consists of a sink or working area and a separate solvent tank that is not accessible for soaking parts and is completely enclosed except for a solvent return opening, which allows used solvent to drain into it from the sink or work area.

~~(2419)~~ **"Sealing Fluid"** means a fluid that prevents evaporation of a stripping solvent by forming a liquid or solid layer on the solvent's surface.

~~(2220)~~ **"Solvent"** means any substance containing an organic compound or combination of organic compounds which is liquid at atmospheric pressure and ambient temperature and which is used as a diluent, thinner, dissolver, viscosity reducer, or cleaning agent, or for other similar purposes.

~~(2321)~~ **"Solvent-Air Interface"** means the area of contact between the solvent and air that is contiguous with the air outside the degreaser.

~~(2422)~~ **"Solvent Carry-Out"** means solvent carried out of a degreaser that adheres to or is entrapped in the part being cleaned.

~~(2523)~~ **"Solvent Cleaning Operation"** means any solvent cleaning activity including subsequent drying that is conducted in a degreaser to remove contaminants from parts, products, tools, machinery, and/or equipment.

~~(2624)~~ **"Stripping Operation"** means a removal of cured coatings, inks, resins, or adhesives conducted with the use of solvents by immersion into a container such as tank or drum.

~~(27)~~ **"Water-Based Material"** means any solvent that consists only of water and VOC and does not contain exempt compounds.

~~(2825)~~ **"Wipe Cleaning"** means the method of cleaning a surface, not conducted in a container, by physically rubbing it with a material or device such as a rag, paper, or cotton swab moistened with a solvent.

~~(2926)~~ **"Volatile Organic Compound (VOC)"** means any volatile compound containing at least one atom of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds the same as defined in Rule 2 (Definitions).

(d) **STANDARDS**

(1) VOC Content Requirements for Cold Solvent Cleaning Operations

~~Except as specified in Subsections (b)(2), (e)(1), or (e)(2), each solvent utilized in a cold solvent cleaning operation subject to this rule shall have a VOC content of 50 g/l (0.42 lbs/gal) of material or less, as used.~~ no cold solvent cleaning operation shall use materials with a VOC content exceeding 25 grams per liter (g/l) (0.21 lbs/gal) of material, as used.

(2) General Equipment Requirements for Cold Solvent Cleaning Operations

A person shall not conduct a cold solvent cleaning operation unless a degreaser is equipped with all of the following.

- (i) A cover that completely covers the solvent when work is not being performed in the degreaser. This includes covers for the sink or basin of a remote reservoir cleaner.
- (ii) A facility for draining parts such that the drained solvent returns to the degreaser.

(3) Equipment Specific Requirements for Cold Solvent Cleaning Operations

- (i) A person shall not operate a batch-loaded cold solvent cleaner unless it has:
 - (A) a freeboard ratio greater than or equal to 0.5,
 - (B) a cover easily operable with one hand or mechanically assisted, and
 - (C) a readily visible, permanent mark or line indicating the maximum allowable solvent level that conforms to the freeboard ratio.
- (ii) A person shall not operate a remote reservoir cleaner unless it has:
 - (A) a freeboard height of at least 6 inches (15 cm), and
 - (B) a sink-like work area for draining cleaned parts, which is sloped sufficiently towards the drain to preclude pooling of solvent.

(4) Operating Requirements for Cold Solvent Cleaning Operations

A person shall not conduct a cold solvent cleaning operation without meeting all of the following requirements.

- (i) A permanent, conspicuous, legible label listing the applicable operating requirements is posted on or near the degreaser.
- (ii) The solvent degreaser and any emission control system are properly installed and maintained in proper working order.

(iii) Any emission control system is properly operating at all times when parts are being cleaned.

(iv) The required cover is not removed except to process work or to perform maintenance.

(v) There are no liquid leaks from any portion of the degreaser. Upon detection of a liquid leak, the leak shall be repaired immediately, or the degreaser shall be shut down and drained in a manner that minimizes emissions.

(vi) No porous or absorbent materials, such as cloth, leather, wood, or rope are cleaned in the degreaser.

(vii) Solvent spraying, when necessary, is conducted by using only a continuous liquid stream (not a fine, atomized, fan, or shower type spray) at a pressure which does not cause liquid solvent to splash outside of the solvent container.

(viii) Solvent agitation, where necessary, is achieved exclusively through pump circulation or by means of a mechanical mixer or ultrasonic agitation. Air or gas agitation shall not be used.

(ix) For batch-loaded cleaners the actual solvent level is not above the marked maximum solvent level line at any time.

(x) The degreaser is not exposed to drafts greater than 131 feet (40 meters) per minute.

(xi) Solvent carry-out is minimized by all of the following methods:

(A) allowing for full drainage by racking parts or other means;

(B) tipping out any pools of solvent from the cleaned parts before removal; and

(C) allowing parts to dry within the degreaser until visually dry or dripping ceases.

(xii) Waste solvent and contaminated residue, if any, shall be recycled or disposed of according to requirements based on the California Health and Safety Code, Division 20, Chapter 6.3 (beginning at Section 25100) concerning hazardous waste disposal.

(5) Equipment Requirements for Stripping Operations

A person shall not operate stripping equipment unless it is equipped with all of the following.

(i) A cover that completely covers the solvent when work is not processed in the tank.

(ii) A facility for draining parts such that the drained solvent returns to the container.

(iii) A readily visible, permanent mark or line indicating the maximum allowable solvent level that conforms to the freeboard ratio in Subsection (d)(5)(iv) below, unless a sealing fluid is used.

(iv) Stripping equipment has:

(A) a freeboard ratio greater than or equal to 0.75; or

(B) a sealing fluid.

(6) Operating Requirements for Stripping Operations

A person shall not conduct a stripping operation without meeting all of the following requirements.

(i) A permanent, conspicuous, legible label listing the applicable operating requirements is posted on or near the stripping operation.

(ii) The stripping equipment and any emission control system are properly installed and maintained in proper working order.

(iii) Any emission control system is properly operating at all times when parts are being stripped.

(iv) The required cover is not removed except to process work or to perform maintenance.

(v) There are no liquid leaks from any portion of the stripping equipment. Upon detection of a liquid leak, the leak shall be repaired immediately, or the stripping tank drained and taken out of service, in a manner that minimizes emissions.

(vi) Solvent is not above the marked maximum solvent level line, unless a sealing fluid is used.

(vii) Solvent carry-out is minimized by all of the following methods:

(A) allowing for full drainage by racking parts or by other means;

(B) tipping out any pools of solvent from the stripped parts before removal; and

(C) allowing parts to dry within the stripping equipment until visually dry or dripping ceases.

(viii) Solvent agitation, where necessary, is achieved exclusively through pump circulation or by means of a mechanical mixer or ultrasonic agitation. Air or gas agitation shall not be used.

(ix) Solvent spraying, when necessary, is conducted by using only a continuous fluid stream (not a fine, atomized, fan, or shower type spray) at a pressure which does not cause liquid solvent to splash outside of the solvent container.

(x) Waste solvent and contaminated residue, if any, shall be recycled or disposed of according to requirements based on the California Health and Safety Code, Division 20, Chapter 6.3 (beginning at Section 25100) concerning hazardous waste disposal.

(e) **CONTROL EQUIPMENT**

(1) In lieu of complying with the requirements in Subsections (d)(1), (d)(2), and (d)(3) an owner/operator may use an ~~airtight~~/airless/air-tight cold solvent cleaner provided that all of the following requirements are met:

(i) The equipment is operated in accordance with the manufacturer's specifications and with a door or other pressure sealing apparatus in place during all cleaning and drying cycles;

(ii) All associated pressure relief devices do not allow liquid solvents to drain out. Spills during any solvent transfer shall be cleaned up immediately;

(iii) A differential pressure gauge is installed to indicate the sealed chamber pressure;

(iv) The equipment complies with all applicable operating requirements of Subsection (d)(4).

(2) In lieu of complying with the requirements of Subsections (d)(1), (d)(2), (d)(3), and (d)(5) a person conducting a cold solvent cleaning or stripping operation may use an air pollution control system which:

(i) Has been installed in accordance with an Authority to Construct; and

(ii) Has a combined emissions capture and control efficiency of at least 85% by weight.

(3) A person electing to use control equipment pursuant to Subsection (e)(2) shall submit to the Air Pollution Control Officer for approval an Operation and Maintenance plan for the proposed emission control and collection system and receive approval prior to operation of the control equipment. Thereafter, the plan can be modified, with Air Pollution Control Officer approval, as necessary to ensure compliance. Such a plan shall:

(i) Identify all key system operating parameters. Key system operating parameters are those necessary to ensure compliance with Subsection (e)(2)(ii), such as temperature and/or pressure;

(ii) Include proposed inspection schedules, anticipated ongoing maintenance, and proposed recordkeeping practices regarding the key system operating parameters; and

(iii) Upon approval by the Air Pollution Control Officer, a person subject to the requirements of Subsection (e)(2) shall implement the Operation and Maintenance plan and shall comply with all the provisions of the approved plan.

(f) RECORD KEEPING REQUIREMENTS

(1) Any person conducting a cold solvent cleaning or stripping operation subject to this rule shall maintain the following records:

(i) A current list of solvents and sealing fluids in use, which provides all of the data necessary to evaluate compliance, including but not limited to:

(A) Manufacturer name and identification for each solvent, and

(B) VOC content of solvent expressed in g/l (lbs/gal) of material as used, and density and mix ratios for each solvent.

(2) Any person using control equipment pursuant to Section (e) of this rule shall:

(i) Maintain records in accordance with the requirements of Subsection (f)(1); and

(ii) Maintain daily records of key system operating parameters as approved in the Operation and Maintenance plan pursuant to Subsection (e)(3). Such records shall be sufficient to document continuous compliance with Subsection (e)(2)(ii) during periods of emission producing activities.

All records shall be retained on site for at least three years and shall be made available to the District upon request.

(g) TEST METHODS

When more than one test method or set of test methods are specified in this Section, a violation of any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of the rule.

(1) The VOC content of cleaning materials shall be determined by the South Coast Air Quality Management District (SCAQMD) Method 313-91 (Determination of Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry), February 1997, SCAQMD Method 308-91 (Quantitation of Compounds by Gas Chromatography), February 1993, or any other test methods approved by the Environmental Protection Agency (EPA), California Air Resources Board (CARB), and the Air Pollution Control District.

(2) The overall control efficiency of air pollution control equipment operated pursuant to Subsection (e)(2)(ii) shall be determined by multiplying the capture efficiency of the emission collection system by the control efficiency of the air pollution control device. The control efficiency of the air pollution control device shall be determined using EPA Test Methods 18 and ~~25 or 25A~~ (40 CFR 60, Appendix A), August 2017; and in accordance with a protocol approved by the Air Pollution Control Officer. Capture efficiency shall be determined according to EPA Test Methods 204 and 204A through 204F (40 CFR Part 51, Appendix M) as applicable, August 2017; and technical document “Guidelines for Determining Capture Efficiency,” January 1995. Subsequent to the initial compliance demonstration period, appropriate key system operating parameters as determined by the Air Pollution Control Officer may be used as indicators of the performance of the emission control system.

(h) COMPLIANCE SCHEDULE

~~(1)~~ All new cold solvent cleaning or stripping operations shall comply with the applicable requirements of this rule upon initial startup.

~~(2) All existing cold solvent cleaning or stripping operations shall comply with the applicable requirements of this rule not later than May 23, 2008.~~

~~(3) The owner or operator of existing cold solvent cleaning or stripping equipment that will require modifications pursuant to the requirements of Subsections (d)(1), (d)(3), and/or (d)(5), except for those switching to a water-based solvent with a VOC content 50 g/l or less shall:~~

~~(i) By November 23, 2007, submit to the Air Pollution Control Officer an application to modify a Permit to Operate for complying with the applicable requirements of Subsections (d)(1), (d)(3), and/or (d)(5).~~

~~(ii) By May 23, 2008, comply with all applicable rule requirements.~~

~~(4) The owner or operator of existing cold solvent cleaning or stripping equipment that chooses to comply with the rule by installing air pollution control equipment pursuant to Section (e) of this rule shall comply with the following increments of progress:~~

~~(i) By November 23, 2007, submit to the Air Pollution Control Officer an application for an Authority to Construct and a Permit to Operate an air pollution control system as specified in Section (e).~~

~~(ii) By May 23, 2008, comply with all applicable rule requirements.~~

RULE 67.6.2 VAPOR DEGREASING OPERATIONS

(Adopted & Effective 5/23/07; Rev. Effective (date of adoption))

(a) APPLICABILITY

(1) Except as provided in Section (b), this rule is applicable to all vapor degreasing operations.

(2) Rule 66.1 (Miscellaneous Surface Coating Operations and Other Processes Emitting Volatile Organic Compounds) shall not apply to any vapor degreasing operation.

(b) EXEMPTIONS

(1) This rule shall not apply to the following:

(i) ~~Except for requirements for waste solvent disposal in Subsection (d)(4)(xiii), v~~ Vapor degreasing operations that exclusively utilize ~~water-based cleaning~~ materials with a volatile organic compound (VOC) content of ~~50-25~~ grams per liter (g/l) ~~of material (0.42 pounds per gallon-0.21 lbs/gal) of material~~ or less, as used.

It shall be the responsibility of any person conducting such operations to keep a current list of all cleaning materials and the VOC content of each material, as ~~applied used~~, to substantiate this exemption.

(ii) Vapor-phase solder reflow units.

(iii) Vapor degreasing operations conducted in a container with a vapor-air interface area of one square foot (0.09 square meters) or less or with a maximum solvent capacity of one gallon (3.8 liters) or less.

(c) DEFINITIONS

(1) "**Airless/Air-Tight Vapor Degreaser**" means a system that consists of a sealed vapor degreaser and the devices to condense and recover solvent and emission control devices to remove solvent from all gas streams that vent to the atmosphere. The system must have no open vapor-air interface, and be designed and operated in such a manner as to prevent the discharge or leakage of solvent emissions to the atmosphere during all cleaning and drying operations.

(2) "**Batch-loaded Solvent Degreaser**" means a degreaser in which any material is placed for cleaning and removed as a single batch after the cleaning is finished.

- (3) **"CFR"** means Code of Federal Regulations.
- (4) **"Degreaser"** means a tank, drum, or other container in which objects to be cleaned are exposed to a solvent or solvent vapors, in order to remove contaminants.
- ~~(5) **"Exempt Compounds"** means the same as defined in Rule 2.~~
- ~~(6) **"Existing Vapor Degreasing Operation"** means any vapor degreasing operation that is not new.~~
- (75) **"Freeboard Height"** means the distance from the solvent vapor-air interface to the top of the degreaser tank, based on inside tank dimensions.
- (86) **"Freeboard Ratio"** means the freeboard height divided by the smaller of the interior length or width of the degreaser tank.
- (97) **"Liquid Leak"** means any visible leak of a VOC-containing liquid at a rate in excess of three drops per minute.
- ~~(108)~~ **"New Vapor Degreasing Operation"** means any vapor degreasing operation for which a complete application for an Authority to Construct in San Diego County was submitted after ~~May 23, 2007~~ *(date of adoption)*.
- ~~(119)~~ **"Open-top Vapor Degreaser"** means any batch-loaded vapor degreaser.
- ~~(1210)~~ **"Perimeter Trough"** means a receptacle within the vapor degreaser located below the primary condenser that conveys condensed solvent and atmospheric moisture to a water separator.
- ~~(1311)~~ **"Primary Condenser"** means a series of circumferential cooling coils on the inside of walls of a vapor degreaser through which a chilled substance is circulated or recirculated to provide continuous condensation of rising solvent vapors, thereby creating a concentrated solvent vapor zone.
- ~~(1412)~~ **"Refrigerated Freeboard Chiller"** means an emission control device which is mounted above the degreaser's water jacket or primary condenser coils, and which consists of secondary coils that carry a refrigerant to provide a chilled air blanket above the solvent vapor.
- ~~(1513)~~ **"Solvent"** means any substance containing an organic compound or combination of organic compounds which is liquid at atmospheric pressure and ambient temperature and which is used as a diluent, thinner, dissolver, viscosity reducer, or cleaning agent, or for other similar purposes.
- ~~(1614)~~ **"Solvent Carry-Out"** means solvent carried out of a degreaser that adheres to or is entrapped in the part being cleaned.

~~(1715)~~ **"Vapor-Air Interface"** means the area of contact between the solvent vapors and air that is contiguous with the air outside the degreaser. The area of the vapor-air interface shall be calculated as the product of the lengths between internal solvent cleaner walls behind the condensing coils.

~~(1816)~~ **"Vapor-Phase Solder Reflow Unit"** means a device in which parts are immersed in VOC-rich vapor generated by boiling a liquid for heating to melt or soften solder connections of electronic components.

~~(1917)~~ **"Vapor Degreaser"** means a degreaser in which objects to be cleaned are exposed to a boiling solvent or solvent vapors.

~~(2018)~~ **"Vapor Degreasing Operation"** means a cleaning operation that is conducted by immersing parts, products, tools or other items in a boiling solvent or in solvent vapors generated by boiling solvent.

~~(2119)~~ **"Volatile Organic Compound (VOC)"** means ~~any volatile compound containing at least one atom of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds~~ the same as defined in Rule 2 (Definitions).

~~(22)~~ **"Water-Based Cleaning Material"** means ~~cleaning material that consists only of water and VOC and does not contain any exempt compounds.~~

~~(2320)~~ **"Water Separator"** means a device that isolates water from a solvent or a mixture of solvents through mechanical or chemical means.

(d) **STANDARDS**

(1) General Equipment Requirements

A person shall not operate any vapor degreaser unless it is equipped with all of the following:

- (i) A cover that can be easily operated without disturbing the vapor layer and that completely covers the solvent tank when work is not performed in the degreaser;
- (ii) A primary condenser situated above the boiling solvent;
- (iii) A water separator that does not operate by means of evaporation or distillation;
- (iv) A perimeter trough;
- (v) For vapor degreasers employing sprays:

(A) spray nozzles having a pressure low enough to prevent liquid splashing outside of the tank, and

(B) spray nozzles which produce continuous liquid flow, rather than fine atomized or shower type sprays; or

(C) spray nozzles which are located below the vapor-air interface.

(2) Additional Equipment Requirements

All vapor degreasers shall have one of the following:

(i) A freeboard ratio of at least 1.0; or

(ii) A refrigerated freeboard chiller, where the chilled air blanket temperature measured in degrees Fahrenheit at the center of the air blanket is not greater than 40% of the initial boiling point of the solvent; or

(iii) Be designed in such a manner that its cover or door opens only when the dry part is entering or exiting the degreaser.

(3) Safety Devices

Vapor degreasers shall be equipped with the following safety devices:

(i) A device which shuts off the sump heat if the condenser's coolant stops circulating. This requirement does not apply to vapor degreasers equipped with refrigerated condensers; and

(ii) A device which shuts off the sump heat if the condenser's coolant or refrigerant temperature becomes higher than the designed operating temperature; and

(iii) A device which is only manually resettable and which shuts off the sump heat if the vapor level rises above the designed operating level;

(iv) For vapor degreasers employing sprays, a device that prevents spray pump operation if the solvent vapor-air interface temperature falls below the designed operating level.

(4) Operating Requirements

A person shall not operate a vapor degreaser unless all of the following requirements are met:

(i) A permanent, conspicuous, legible label listing the applicable operating requirements is posted on or near the degreaser;

(ii) The degreaser and any emission control equipment are installed and maintained in proper working order. The emission control equipment shall be properly operating at all times when parts are being cleaned or solvent is being heated in the degreaser;

(iii) The cover is not removed except to process workload or to perform maintenance;

(iv) There are no liquid leaks from any portion of the degreaser. Upon detection of a liquid leak, the leak shall be repaired immediately, or the degreaser shall be shut down and drained in a manner that minimizes emissions;

(v) Ventilation fans are not positioned near the degreaser openings in such a way as to disturb the vapor zone;

(vi) At startup, the primary condenser and the refrigerated freeboard chiller, if required, are turned on before the sump heater is turned on. At shutdown, the sump heater is turned off before the primary condenser and refrigerated freeboard chiller are turned off;

(vii) No porous or absorbent materials, such as cloth, leather, wood, or rope are cleaned in a vapor degreaser;

(viii) Solvent is not sprayed above the vapor-air interface;

(ix) Exhaust ventilation rate does not exceed 65 cubic feet per minute per square foot (20 cubic meters per minute per square meter) of the degreaser vapor-air interface area, unless necessary to meet OSHA requirements;

(x) Workloads placed in the degreaser occupy a horizontal cross-sectional area that is less than one half of the vapor-air interface area;

(xi) The water separator is maintained to prevent water from returning to the surface of the boiling solvent sump or from becoming visibly detectable in the solvent exiting the water separator; and

(xii) Solvent carry-out is minimized by all of the following methods:

(A) racking parts for full drainage;

(B) moving parts in and out of the degreaser at a speed of less than 11 feet per minute (3.3 meters per minute);

(C) cleaning the workload in the vapor zone until condensation ceases;

(D) tipping out any pools of solvent on the cleaned parts before removal;
and

(E) not removing parts from the degreaser until they are visually dry.

(xiii) Waste solvent and contaminated residue, if any, shall be recycled, or disposed of according to requirements based on the California Health and Safety Code, Division 20, Chapter 6.3 (beginning at section 25100) concerning hazardous waste disposal.

(e) **CONTROL EQUIPMENT**

(1) In lieu of complying with the equipment requirements in Subsections (d)(1), (d)(2), and (d)(3), an owner/operator may use an ~~airtight~~-airless/air-tight vapor degreaser provided that all of the following requirements are met:

(i) The degreaser is operated in accordance with the manufacturer's specifications and is equipped with a door or other pressure sealing apparatus in place during all cleaning and drying cycles;

(ii) All associated pressure relief devices do not allow liquid solvents to drain out. Spills during any solvent transfer shall be wiped up immediately;

(iii) A differential pressure gauge is installed to indicate the sealed chamber pressure;

(iv) The applicable operating requirements of Subsection (d)(4) are met.

(2) In lieu of complying with the requirements of Subsections (d)(1), (d)(2), and (d)(3), an owner/operator of a vapor degreaser may use an air pollution control system which:

(i) Has been installed in accordance with an Authority to Construct; and

(ii) Has a combined emissions capture and control efficiency of at least 85% by weight.

(3) A person electing to use control equipment pursuant to Subsection (e)(2) shall submit to the Air Pollution Control Officer for approval an Operation and Maintenance plan for the proposed air pollution control system and receive approval prior to operation of the control equipment. Thereafter, the plan can be modified, with Air Pollution Control Officer approval, as necessary to ensure compliance. Such plan shall

(i) Identify all key system operating parameters. Key system operating parameters are those necessary to ensure compliance with Subsection (e)(2)(ii), such as temperature and/or pressure;

(ii) Include proposed inspection schedules, anticipated ongoing maintenance, and proposed recordkeeping practices regarding the key system operating parameters; and

(iii) Upon approval of the Air Pollution Control Officer, a person subject to the requirements of Subsection (e)(2) shall implement the Operation and Maintenance plan and shall comply with the all the provisions of the approved plan.

(f) **RECORD KEEPING REQUIREMENTS**

(1) Any person conducting vapor degreasing operations subject to this rule shall maintain the following records:

(i) A current list of cleaning materials in use, which provides all of the data necessary to evaluate compliance, including but not limited to:

(A) Manufacturer name and identification for each material;

(B) VOC content expressed in g/l (lb/gal) of material as used, and density and mixed ratios for each component; and

(C) Initial boiling point of a cleaning material if a refrigerated freeboard chiller is used.

(2) Any person using control equipment pursuant to Section (e) of this rule shall:

(i) Maintain records in accordance with the requirements of Subsection (f)(1); and

(ii) Maintain daily records of key system operating parameters as approved in the Operation and Maintenance plan pursuant to Subsection (e)(3). Such records shall be sufficient to document continuous compliance with Subsection (e)(2)(ii) during periods of emission producing activities.

All records shall be retained on site for at least three years and shall be made available to the District upon request.

(g) **TEST METHODS**

When more than one test method or set of test methods are specified in this Section, a violation of any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of the rule.

(1) The VOC content of cleaning materials shall be determined by the South Coast Air Quality Management District (SCAQMD) Method 313-91 (Determination of Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry), February 1997, SCAQMD Method 308-91 (Quantitation of Compounds by Gas Chromatography), February 1993, or any other test methods approved by the Environmental Protection

Agency (EPA), California Air Resources Board (ARB), and the Air Pollution Control District.

(2) Measurement of initial boiling point of solvents shall be conducted in accordance with ASTM Standard Test Method D1078-03-11 (Standard Test Method for Distillation Range of Volatile Organic Liquids), November 2011 ~~for distillation range of volatile organic liquids~~, or its most current version.

(3) Hoist speed shall be determined by measuring the distance traveled by the hoist per unit of time.

(4) Temperatures in the vapor zone shall be measured with the use of a properly calibrated temperature probe, with an accuracy of $\pm 1^\circ$ F.

(5) The overall control efficiency of air pollution control equipment operated pursuant to Subsection (e)(2)(ii) shall be determined by multiplying the capture efficiency of the emission collection system by the control efficiency of the air pollution control device. The control efficiency of the air pollution control device shall be determined using EPA Test Methods 18 and ~~25 or~~ 25A (40 CFR 60, Appendix A), August 2017; and in accordance with a protocol approved by the Air Pollution Control Officer. Capture efficiency shall be determined according to EPA Test Methods 204 and 204A through 204F (40 CFR Part 51, Appendix M) as applicable, August 2017; and technical document “Guidelines for Determining Capture Efficiency,” January 1995. Subsequent to the initial compliance demonstration period, appropriate key system operating parameters as determined by the Air Pollution Control Officer may be used as indicators of the performance of the emission control system.

(h) **COMPLIANCE SCHEDULE**

(1) All new vapor degreasing operations shall comply with the applicable requirements of this rule upon initial startup.

(2) ~~All existing vapor degreasing operations, except for those specified in Subsection (h)(3) or (h)(4), shall comply with the applicable requirements of this rule after May 23, 2007.~~

(3) ~~An owner or operator of any existing vapor degreaser that currently does not comply with one of the requirements of Subsection (d)(2) shall:~~

- ~~(i) By November 23, 2007, submit to the Air Pollution Control Officer an application to modify a Permit to Operate for complying with the applicable requirements of Subsections (d)(2);~~
 - ~~(ii) By May 23, 2008, comply with all applicable rule requirements.~~
- ~~(4) An owner or operator of an existing vapor degreaser that chooses to comply with the rule by installing air pollution control equipment pursuant to Section (e) of this rule shall comply with the following increments of progress:~~
- ~~(i) By November 23, 2007, submit to the Air Pollution Control Officer an application for an Authority to Construct and a Permit to Operate an air pollution control system as specified in Section (e);~~
 - ~~(ii) By May 23, 2008, comply with all applicable rule requirements.~~