



Air Pollution Control Board

Greg Cox	District 1
Dianne Jacob	District 2
Dave Roberts	District 3
Ron Roberts	District 4
Bill Horn	District 5

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TO: Workshop Participants and Other Interested Parties

**DRAFT PROPOSED NEW RULE 67.12.1 –
POLYESTER RESIN OPERATIONS**

On July 21, 2015, the San Diego County Air Pollution Control District (District) conducted a public workshop to receive comments on draft proposed new Rule 67.12.1 – Polyester Resin Operations. Comments were received before, during, and after the workshop. Attached are the workshop report, which includes the District’s responses to the comments received, and a post-workshop draft version of proposed new Rule 67.12.1. Corresponding draft proposed amendments to Rule 11 – Exemptions from Rule 10 Permit Requirements, are also attached.

Please be advised that the previously proposed exemption for polyester resin operations that emit less than 5 pounds of volatile organic compounds per day has been revised at the request of the U. S. Environmental Protection Agency. The District now proposes to exempt operations using less than 20 gallons per month of polyester resin materials.

If you have any questions or comments regarding the attachments, please contact Angela Ortega (858-586-2753, angela.ortega@sdcounty.ca.gov) or Melissa Adams (858-586-2704, melissa.adams@sdcounty.ca.gov).

ROBERT C. REIDER, Deputy Director
Air Pollution Control District

RR:AMO:jlm

Attachments

**AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO**

**DRAFT PROPOSED NEW
RULE 67.12.1 – POLYESTER RESIN OPERATIONS**

WORKSHOP REPORT

A workshop notice on the draft proposed new Rule 67.12.1 – Polyester Resin Operations, was mailed to all permit holders in San Diego County. Notices were also mailed to all economic development corporations and chambers of commerce in San Diego County, trade associations, various resin manufacturers, the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (ARB), and other interested parties.

The workshop was held on July 21, 2015, and was attended by 17 people. Oral and written comments were received before, during, and after the workshop. A summary of the comments and the Air Pollution Control District's (District) responses to these comments are as follows:

1. WORKSHOP COMMENT

Since compliant polyester resin materials have already penetrated the San Diego County market due to similar regulations in place in nearby California air districts such as the South Coast Air Quality Management District (SCAQMD), are all affected facilities within the County already in compliance with the proposed new rule? Did the District identify any polyester resin materials that are not in compliance with the proposed new rule?

DISTRICT RESPONSE

Yes, with the exception of two individual products, all of the affected facilities within San Diego County are already in compliance with the proposed monomer content percent limits specified in Subsection (d)(1). The two individual polyester resin materials that are not in compliance with the proposed new rule are (1) a corrosion resistant resin at 48.5% styrene (the proposed limit is 48%), and (2) a non-white gel coat at 41% (the proposed limit is 37%). The facilities using these materials are aware of the discrepancy, and the proposed compliance schedule provides up to one year after the date of rule adoption to switch to compliant materials.

2. WORKSHOP COMMENT

The District should include an alternative annual usage exemption limit, in addition to the new proposed 20 gallon per month exemption in amended Subsection (b)(1), for those facilities that only perform polyester resin operations intermittently throughout the year.

DISTRICT RESPONSE

The District disagrees. The proposed 20 gallon per month exemption is consistent with analogous rules in other California air districts.

3. WORKSHOP COMMENT

The District should add an additional polyester resin material category to Subsection (d)(1)(i) for “Tooling Resins” with a monomer content percent limit of 55%. Even though used in relatively small quantities, tooling resin is an important type of polyester raw material for composites manufacturers. A tool (mold) is used many times – sometimes hundreds of times – to make composite products, and the resin used to manufacture a tool has to perform successfully in this very demanding service. In recognition of the very high level of performance needed for tooling resin, the organic Hazardous Air Pollutant (HAP) emission limits for open mold application of tooling resin in EPA's Subpart WWWW – National Emissions Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, allows up to 55% monomer content for these materials.

DISTRICT RESPONSE

The District disagrees that a separate category for “Tooling Resin” is necessary. Many facilities use corrosion resistant resins for tooling applications. The “Corrosion Resistant Resins” category has a monomer content limit of 48%. The proposed definition of “Corrosion Resistant Resin” in Section (c) has been amended to clarify that tooling is an example of a corrosion resistant application. This proposed new language is consistent with analogous rules in other California air districts.

4. WORKSHOP COMMENT

Proposed Subsection (b)(2) exempts closed mold polyester resin operations from complying with the monomer content percent limits and the application equipment standards specified in Subsections (d)(1) and (d)(2), respectively. Accordingly, the District should clarify in proposed Subsection (d)(2) that the specified application equipment standards do not apply to closed molding operations, as provided in Subsection (b)(2).

DISTRICT RESPONSE

The District agrees and has added language to proposed Subsection (d)(2) to clarify that the application equipment standards do not apply to closed mold polyester resin operations.

5. WORKSHOP COMMENT

Proposed Subsection (d)(2) specifies various application equipment and methods for polyester resin operations. With the exception of the application methods listed at Subsection (d)(2)(i) – manual application and other non-atomizing techniques, the application methods listed are spray painting technologies that are not used in composites manufacturing, i.e., electrostatic spray; air-assisted airless spray; airless spray; and HVLP (High-Volume, Low-Pressure) spray. The District should consider adding similar application equipment options to those listed in the SCAQMD Rule 1162 – Polyester Resin Operations, Subsection (c)(1)(A), which reflect the currently available low-emission application equipment for polyester resin open molding operations.

DISTRICT RESPONSE

Proposed Subsection (d)(2)(i) is intended to allow for the application equipment and methods specified in SCAQMD Rule 1162 Subsection (c)(1)(A). To clarify this point, the District has added definitions for “manual application” and “non-atomizing application” to proposed Section (c). These definitions identify the technology options listed in SCAQMD Rule 1162.

6. WORKSHOP COMMENT

With regard to volatile organic compound (VOC) emissions, the District's due diligence shows that most facilities are already in compliance with the proposed polyester resin material monomer content standards specified in Subsection (d)(1). With regard to particulate emissions, facilities keep their sanding and grinding operations to a minimum, and the fire code already requires clean up. Why does the District propose to regulate these sanding and grinding operations in this rule?

DISTRICT RESPONSE

Sanding and grinding operations are commonly performed in conjunction with composites manufacturing and are a source of particulate matter, which is a regulated air pollutant and subject to ambient air quality standards under federal and State law. To ensure such operations do not cause or contribute to an air quality problem, proposed Subsection (d)(5) requires these operations to be conducted inside a controlled enclosure or using a controlled process. The District has proposed language in Subsection (b)(4)(ii) that will exempt this requirement for very small polyester resin operations.

7. WORKSHOP COMMENT

Existing Rule 67.12 – Polyester Resin Operations, has a requirement for self-closing containers in Subsection (d)(1)(iv). Why was the requirement for self-closing containers excluded from the draft proposed new rule?

DISTRICT RESPONSE

At the time existing Rule 67.12 was written, acetone was considered a VOC. In order to minimize VOC emissions, the requirement for self-closing containers was added. Since then, EPA has added acetone to the list of compounds excluded from the definition of a VOC. Therefore, the self-closing container requirement is no longer necessary. However, due to acetone's high flammability, it is recommended that facilities store acetone according to local fire safety codes and regulations. The storage of polyester resin materials would be subject to Rule 67.17 – Storage of Materials Containing Volatile Organic Compounds, which requires all containers used to store, transfer, or apply materials containing VOC to remain closed when not in use.

8. WORKSHOP COMMENT

In some District rules, manufacturers are required to meet the VOC limits in the rule, and therefore are required to sell only compliant materials within San Diego County. Are manufacturers required to meet the monomer content percent limits in draft proposed new Rule 67.12.1, and sell only compliant products?

DISTRICT RESPONSE

No, the draft proposed new rule does not require manufacturers to sell only compliant products. Since some operations are exempt from complying with the monomer content standards specified in Subsection (d)(1), there is no prohibition on the manufacture of non-compliant products.

9. WORKSHOP COMMENT

The District stated that upon the implementation of draft proposed new Rule 67.12.1, it will begin to use the EPA recommended Unified Emission Factors (UEF) for polyester resin operations in place of the 1995 EPA AP-42 emission factors. What effect will these new emission factors have on facilities within San Diego County?

DISTRICT RESPONSE

The UEF emission factors have been used by the District's Engineering Division for the past several years when processing new permit applications and a number of facilities are already using these factors to calculate their VOC emissions. The existing polyester resin permits and permit conditions have been reviewed and the District does not expect there to be any negative effect on existing facilities from the use of the new UEF emission factors. The District will work with the affected facilities, through its Small Business Assistance Coordinator, to facilitate the transition to the new UEF factors.

10. WORKSHOP COMMENT

Some permits for polyester resin operations have permit conditions that require facilities to use polyester resin materials below a specified monomer content percent limit. With the lower monomer content percent limits now being proposed in draft new Rule 67.12.1, how will changes to these permit conditions be made once the rule has been adopted by the Air Pollution Control Board?

DISTRICT RESPONSE

Following rule adoption, the District's Engineering Division will review the affected permits for appropriate changes consistent with the new rule. A small number of these permits may require a permit application to re-evaluate and appropriately revise the permit. For the majority of the required permit revisions, the District plans to make the necessary changes directly (without the need for a permit application) and will send copies of these permits with the updated conditions to the affected facilities for review.

11. EPA COMMENT

The exemption in proposed Subsection (b)(1) applies to polyester resin operations that emit less than 5 pounds of VOC per operating day for each calendar month. On a gallon per month volume basis of polyester resin usage, this value greatly exceeds the allowable exemptions in other analogous rules such as 20 gallons per month in Eastern Kern Air Pollution Control District (EKAPCD) Rule 432, Subsection III.A, and no exemption in SCAQMD Rule 1162. Please consider removing or lowering the proposed exemption level.

DISTRICT RESPONSE

The District agrees. The proposed 5 pounds of VOC per day threshold exemption has been deleted and a proposed new exemption has been added in its place for 20 gallons per month of polyester resin materials. In order to align the permit exemption thresholds with Rule 67.12.1 applicability, the District also proposes to amend the polyester resin permit exemption thresholds found in Rule 11 (Exemptions from Permit Requirements), Subsection (d)(13)(vi), from 5 pounds of VOC per day to 20 gallons per month.

12. EPA COMMENT

In proposed Section (c), please add definitions for "manual application" and "non-atomizing application" similar to those in EKAPCD Rule 432 II, FF and NN respectively, or in San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4684, 3.34 and 3.42 respectively.

DISTRICT RESPONSE

The District agrees. Definitions for "manual application" and "non-atomizing application" have been added to draft proposed new Rule 67.12.1.

13. EPA COMMENT

In proposed Subsection (d)(1)(i), please add additional resin categories and monomer content percent limits for resins with fillers and without fillers for marble resins, tub/shower resins, lamination resins as well as for solid surface resins. See SCAQMD Rule 1162(c)(2)(A) or EKAPCD Rule 432 IV.A., Table 1.

DISTRICT RESPONSE

The District agrees. New resin categories and monomer content percent limits have been added to the proposed new rule for marble resins, tub/shower resins, lamination resins, and solid surface resins.

14. EPA COMMENT

In proposed Subsection (d)(3)(ii), the allowance of up to 200 grams or less per liter VOC content limit, or a total VOC vapor pressure of 45 mm Hg or less, for solvent cleaning materials used for aerospace components, is consistent with the Control Technique Guideline (EPA-453/R-97-004) (Control of VOC Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations) and SCAQMD Rule 1124 (Aerospace Assembly and Component Manufacturing Operations). However, please consider a 25 grams or less per liter VOC content limit for aerospace components similar to the limit specified in Subsection (d)(3)(i) for non-aerospace components.

DISTRICT RESPONSE

The District agrees. The proposed 200 grams or less per liter VOC content limit or a total VOC vapor pressure of 45 mm Hg or less for aerospace solvent cleaning materials has been deleted.

15. EPA COMMENT

In proposed Subsection (e)(1)(iii), we recommend revising the combined emissions capture and control device efficiency to 90% by weight instead of 85%, consistent with other air districts, such as SCAQMD Rule 1162(d) and EKAPCD Rule 432 IV.A.4.b.

DISTRICT RESPONSE

The proposed combined emissions capture and control device efficiency has been amended to 90% by weight. In San Diego County, polyester resin operations are normally conducted in large open warehouse type settings, in which a 90% combined capture and control device efficiency may be difficult to achieve. Proposed Section (e) allows facilities the option of installing control equipment in lieu of complying with the provisions in Section (d) – Standards. However, since compliant materials are readily available, the District does not expect facilities to use this control option to come into compliance.

16. EPA COMMENT

In proposed Subsection (f)(1)(i)(B) – Recordkeeping, the VOC content should be included in the recordkeeping requirements (see, e.g., SCAQMD Rule 1162(e)(1)(B) or EKAPCD Rule 432 V.A.2).

DISTRICT RESPONSE

The District agrees. Language has been added to proposed Subsection (f)(1)(i)(B) to require the VOC content for resin additives to be recorded.

17. EPA COMMENT

In proposed Subsection (f)(3), it is recommended that records be retained on site for five years instead of three years (see, e.g., SJVAPCD Rule 4684, 6.1.7., and EKAPCD Rule 432 V.A.7.)

DISTRICT RESPONSE

The District disagrees. The three year records retention requirement is consistent with all other District prohibitory rules. A five year records retention requirement places too great a burden on local facilities.

18. ARB COMMENT

ARB has no official comments at this time.

RULE 67.12.1 POLYESTER RESIN OPERATIONS *(Adopted (date of adoption))*

(a) **APPLICABILITY**

(1) Except as otherwise provided in Section (b), this rule is applicable to all polyester resin operations, including any associated surface preparation, solvent cleaning and cleaning of application equipment.

(2) Polyester resin operations subject to or exempt from this rule shall not be subject to Rule 66.1.

(b) **EXEMPTIONS**

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

~~(i) Polyester resin operations that emit less than an average of 5 pounds of volatile organic compounds (VOC) 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.~~

(i) 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.

(ii) Coatings subject to Rule 67.0.

(2) Subsections (d)(1) and (d)(2) shall not apply to closed mold polyester resin operations.

(3) Subsection (d)(2) shall not apply to touch-up and repair operations using a hand held air atomized spray gun that has a container for the polyester resin material as part of the gun.

(4) Subsection (d)(5) shall not apply to the following:

(i) Equipment used for buffing, polishing, carving, cutting, deburring, drilling, machining, routing, shearing, sanding, sawing, or surface grinding of fiber reinforced plastic parts that is exclusively vented through a control device that exhausts inside an enclosed building where such equipment is located.

(ii) Dry sanding, grinding or cutting of fiber reinforced plastic parts associated with operations exempt by (b)(1)(i) above.

(c) **DEFINITIONS**

For the purpose of this rule, the following definitions shall apply:

- (1) **"Catalyst"** means a substance added to the resin to accelerate the rate of curing.
- (2) **"Cleaning Materials"** mean materials containing VOC used for surface preparation or the cleaning of hands, tools, molds or application equipment associated with polyester resin operations.
- (3) **"Closed Mold Operation"** means a method of forming objects from polyester resins by placing the material in a confining mold cavity and applying pressure and/or heat.
- (4) **"Controlled Enclosure"** means a structure having at least three sides and a roof, and which is designed to capture process emissions to meet the requirements of all District prohibitory standards (e.g., Rules 50, 51, 52, 71, etc.).
- (5) **"Controlled Process"** means a modification to a dry sanding, grinding or cutting operation which uses water sprays, vacuum devices or other techniques to control the emission of particulates to the atmosphere to meet the requirements of all District prohibitory standards (e.g., Rules 50, 51, 52, 71, etc.).
- (6) **"Corrosion Resistant Resin"** means a ~~halogenated, furan, bisphenol A, vinyl ester, or isophthalic~~ resin which is used to make products for ~~exposure to corrosive, caustic and/or acidic agents~~ corrosion resistant applications such as, but not limited to, tooling, fuel or chemical tanks, boat hulls, pools, and outdoor spas.
- (7) **"Cross-Linking"** means the process of joining two or more polymer chains together.
- (8) **"Cure"** means polymerization, i.e., the transformation from a liquid to a solid state, to achieve desired product physical properties, including hardness.
- (9) **"Electrostatic Spray"** means an application method accomplished by charging atomized particles for deposition by electrostatic attraction.
- (10) **"Exempt Compound"** means the same as defined in Rule 2.
- (11) **"Filler"** means a finely divided inert (non-VOC) material, which may be added to the resin to enhance its mechanical properties and extend its volume. Resin fillers include, but are not limited to, silica, carbon black, talc, mica and calcium carbonate.

(~~11~~12) "**Fiberglass**" means a fiber similar in appearance to wool or cotton fiber but made from glass.

(~~12~~13) "**Fire Retardant Resin**" means a resin designed for the purpose of delaying the spread of combustion.

(~~13~~14) "**Gel Coat**" means a polyester resin surface coat, either pigmented or clear, providing a cosmetic enhancement and improved resistance to exposure.

(~~14~~15) "**High Strength Resin**" means a resin with a casting tensile strength of 10,000 psi or more, used to manufacture high performance products.

(~~15~~16) "**High-Volume Low-Pressure (HVL) Spray**" means an application method using a spray applicator and pressurized air which is designed to be operated and which is operated at an atomizing pressure between 0.1 and 10.0 psig, measured dynamically at the center of the applicator's air cap and the applicator's air horns.

(~~16~~17) "**Inhibitor**" means a substance designed to slow down or prevent a chemical reaction.

(18) "**Lamination Resin**" means an orthophthalate, isophthalate and dicyclopentadiene resin which is used in composite system made of layers of reinforcement fibers and resins.

(19) "**Manual Application**" means the application of resin to an open mold using a hand lay-up technique. Components of successive plies of resin-impregnated reinforcement fibers are applied using hand tools such as brushes and rollers.

(~~17~~20) "**Monomer**" means an organic compound, such as styrene, that combines with itself or other similar compounds by a cross-linking reaction to become a part of a cured thermosetting resin.

(21) "**Non-Atomizing Application**" means an application technology in which the resin is not broken into droplets or an aerosol as it travels from the application equipment to the surface of the part. Non-atomizing application equipment includes, but is not limited to, flow coaters, chopper flow coaters, pressure fed resin rollers, resin impregnators, and fluid impingement technology.

(1822) **"Polyester"** means a complex polymeric ester, derived from di-functional acids and alcohols, which is dissolved in a monomer.

(1923) **"Polyester Resin Materials"** means unsaturated polyester cross-linking agents, catalysts, gel coats, inhibitors, and any other material containing VOC used in a polyester resin operation.

(2024) **"Polyester Resin Operation"** means the fabrication, rework, repair, or touch-up of composite products using any of the following methods: mixing, pouring, hand lay-up, impregnation, injection, forming, winding, spraying, and curing of polyester resin materials.

(2125) **"Polymer"** means a large chemical chain composed of identical cross-linked groups, such as polystyrene.

(2226) **"Primer Gel Coat"** means a gel coat used to coat the surface of composite parts prior to top-coat painting.

(2327) **"Repair"** means the addition of polyester resin materials to portions of a previously fabricated product in order to mend mechanical damage which occurs after the normal fabrication process.

(2428) **"Resin"** means any of a class of organic polymers of natural or synthetic origin used in reinforced products to surround and hold fibers and/or fillers, and which is solid or semi-solid in the cured state.

(29) **"Solid Surface Resin"** means a resin used without gel coats to fabricate homogenous solid surface products.

(2530) **"Specialty Gel Coat"** means a gel coat used for tooling or in conjunction with fire retardant, corrosion-resistant, or high strength materials.

(2631) **"Surface Preparation"** means the cleaning of surfaces by utilizing cleaning materials prior to further treatment, sale or intended use.

(2732) **"Touch-up"** means that portion of the polyester resin operation that is necessary to cover minor imperfections.

(33) **"Tub/Shower Resin"** means a dicyclopentadiene resin, along with orthophthalate and isophthalate resins, which are used to fabricate bathware products.

(2834) **"Vapor Suppressed Resin"** means a resin which has been modified to minimize the weight loss from VOC emissions during polymerization.

(2935) **"Volatile Organic Compound (VOC)"** means the same as defined in Rule 2.

(3036) **"VOC Content Per Volume of Material"** means the weight of VOC per volume of cleaning material, and is calculated by the equation provided in Rule 2.

(d) **STANDARDS**

(1) Polyester Resin Materials

(i) Except as provided in Subsections (b)(1) and (b)(2), a person shall not apply any polyester resin material with monomer content in excess of the following percentages, by weight, as applied:

<u>CATEGORY</u>	<u>MONOMER WEIGHT %</u>
Clear Gel Coat	
Marble Gel Coat	40%
Other Clear Gel Coats	44%
Pigmented Gel Coat	
White and Off-White Gel Coats	30%
Other Non-White Gel Coats	37%
Primer Gel Coat	28%
Specialty Gel Coat	48%
Resins	
Marble Resins	<u>10% or</u> <u>32% without fillers</u>
Other Resins	35
<u>Solid Surface Resins</u>	<u>17%</u>
<u>Tub/Shower Resins</u>	<u>24% or</u> <u>35% without fillers</u>
<u>Lamination Resins</u>	<u>31% or</u> <u>35% without fillers</u>
Fire Retardant Resins	38%
Corrosion Resistant Resins	48%
High Strength Resins	40%
<u>Other Resins</u>	<u>35%</u>

(ii) Except as provided in Subsections (b)(1) and (b)(2), a person shall not apply any vapor suppressed resin material unless the weight loss from the VOC

emissions is 50 grams per square meter or less of exposed surface area during polymerization.

(2) Application Equipment for Polyester Resin Operations

Except as provided in Subsections (b)(2) and (b)(3), no polyester resin material shall be applied unless one of the following application methods is used:

(i) ~~Manual application~~ or other non-atomizing application techniques; or

(ii) Electrostatic spray; or

(iii) Air-Assisted Airless Spray; or

(iv) Airless Spray; or

(v) High-Volume, Low-Pressure (HVLV) spray: facilities using an HVLV spray gun shall have available on site pressure gauges in proper operating condition to measure the air cap pressure or have available manufacturer's technical information regarding the correlation between the handle air inlet pressure and the air cap pressure. If the correlation option is used to demonstrate compliance, a handle air inlet pressure gauge will be required on site in proper operating condition to measure the handle air inlet pressure.

(3) Surface Preparation and Solvent Cleaning Materials

A person shall not conduct surface preparation or solvent cleaning unless: the VOC content of the cleaning material is 25 grams per liter (0.21 lbs/gal) of material, or less as used.

~~(i) The VOC content of the cleaning material is 25 grams per liter (0.21 lbs/gal) of material, or less as used; or~~

~~(ii) The cleaning material used for aerospace components has a VOC content of 200 grams per liter (1.7 lbs/gal) of material, or less as used, or has a total VOC vapor pressure of 45 mm Hg or less at 20°C (68°F).~~

(4) Cleaning of Application Equipment

A person shall not use VOC containing materials for the cleaning of application equipment used in operations subject to this rule unless:

(i) The VOC content of the cleaning material is 25 grams per liter (0.21 lbs/gal) of material, or less as used; or

(ii) The cleaning material is flushed or rinsed through the application equipment in a contained manner that will minimize evaporation into the atmosphere; or

(iii) The application equipment or equipment parts are cleaned in a container which is open only when being accessed for adding, cleaning, or removing application equipment or when cleaning material is being added, provided the cleaned equipment or equipment parts are drained to the container until dripping ceases; or

(iv) A system is used that totally encloses the component parts being cleaned during washing, rinsing and draining.

(5) Except as provided in Subsection (b)(4), conduct all dry sanding, grinding and cutting operations of polyester resin products either inside a controlled enclosure or using a controlled process. For marine vessel repair operations, this requirement shall apply only for sanding, grinding or cutting operations conducted on the exterior of a vessel hull. This requirement shall not apply to any portable drilling operations.

(e) CONTROL EQUIPMENT

(1) In lieu of complying with the provisions of Section (d) of this rule, an owner/operator may use an air pollution control system which:

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

(ii) Includes an emission collection system which captures and transports emissions generated by polyester resin operations to an air pollution control device; and

(iii) Has a combined emissions capture and control device efficiency of at least 8590% by weight.

(2) A person electing to use control equipment pursuant to Subsection (e)(1) shall submit to the Air Pollution Control Officer for approval an Operation and Maintenance plan for the proposed emission control device and emission collection system and receive approval prior to operation of the control equipment. Thereafter, the plan may 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)(1)(iii), such as temperature, pressure, and/or flow rate; and

(ii) Include proposed inspection schedules, anticipated ongoing maintenance, and proposed record keeping practices regarding the key system operating parameters.

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

(f) **RECORD KEEPING**

(1) Any person subject to the provisions of this rule shall maintain records of VOC-containing materials in accordance with the following:

(i) Maintain a current list of each polyester resin material, surface preparation and cleaning material in use, which provides all of the data necessary to evaluate compliance, including, but not limited to:

(A) Manufacturer's name, identification, and material specifications for each polyester resin material, surface preparation and cleaning material used.

(B) For polyester resin materials, the monomer content percent, by weight, as applied; the VOC content of any catalysts, fillers, and/or diluents, including thinners; the application method; and the applicable category of each resin or gel coat as specified in Subsection (d)(1).

(C) For vapor suppressed resins, manufacturer's information on the weight loss from the VOC emissions during resin polymerization.

(D) For surface preparation and cleaning materials, the VOC content expressed in grams per liter (lbs/gal) of material, as used.

(ii) Maintain daily or monthly records of the amount of each polyester resin material used.

(iii) Maintain monthly inventory, purchasing or dispensing records of the amount of each VOC-containing surface preparation and cleaning material used.

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

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

(ii) For all polyester resin materials, surface preparation and cleaning materials not in compliance with Subsections (d)(1) or (d)(3), maintain daily records of the amount of each polyester resin material, surface preparation and cleaning material used; and

(iii) Maintain daily records of key system operating parameters as approved in the Operation and Maintenance plan. Such records shall be sufficient to document continuous compliance with Subsection (e)(1)(iii) during periods of emission producing activities.

(3) All records shall be retained on site for at least three years, and 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 monomer content of resins subject to Subsection (d)(1)(i) of this rule shall be determined in accordance with South Coast Air Quality Management District (SCAQMD) Method 312-91 (Determination of Percent Monomer in Polyester Resin), April 1996.

(2) The polyester resin material weight loss per square meter subject to Subsection (d)(1)(ii) of this rule shall be determined in accordance with SCAQMD Method 309-91 (Determination of Static Volatile Emissions), February 1993.

(3) The VOC content of surface preparation or cleaning materials containing 50 grams of VOC per liter or less, subject to the requirements of Subsections (d)(3) and (d)(4), 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 (Quantification of Compounds by Gas Chromatography), February 1993.

(4) The content of methyl acetate, acetone and parachlorobenzotrifluoride shall be determined in accordance with the ASTM Test Method D6133-02(2014) (Standard Test Method for Acetone, p-Chlorobenzotrifluoride, Methyl Acetate or t-Butyl Acetate Content of Solventborne and Waterborne Paints, Coatings, Resins, and Raw Materials by Direct Injection Into a Gas Chromatograph), or its most current version.

(5) Measurements of exempt compound content, except for those determined in accordance with Subsection (g)(4), shall be conducted in accordance with SCAQMD Test Method 303-91 (Determination of Exempt Compounds), August 1996.

(6) The overall control efficiency of air pollution control equipment operated pursuant to Subsection (e)(1)(iii) 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 Environmental Protection Agency (EPA) Test Methods 25A and/or 18 (40 CFR Part 60, Appendix A), both dated September 1996, and in accordance with a protocol approved by the Air Pollution Control Officer.

(7) Capture efficiency of an emission collection system pursuant to Subsection (e)(1)(iii) shall be determined according to EPA Test Method 204 and 204A through 204F (40 CFR Part 51, Appendix M), as applicable, dated June 1997, and technical document "Guidelines for Determining Capture Efficiency," dated January 1995. Subsequent to the initial compliance demonstration period, appropriate key system operating parameters as approved by the Air Pollution Control Officer may be used as indicators of the performance of the emission control system.

(8) Other test methods which are determined to be equivalent to the test methods specified in this rule and approved, in writing, by the Air Pollution Control Officer, California Air Resources Board, and EPA may be used in place of the test methods specified in this rule.

(h) COMPLIANCE SCHEDULE

(1) All new operations or processes subject to this rule shall comply with all applicable requirements upon initial startup.

(2) All existing operations or processes subject to this rule shall comply with all applicable requirements no later than *(one year from date of adoption)*.

(3) The owner or operator of an existing operation that chooses to comply with the rule by installing air pollution control equipment pursuant to Section (e) of this rule shall:

(i) By *(6 months from date of adoption)*, 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 *(18 months from date of adoption)*, comply with all applicable rule requirements.

RULE 11. EXEMPTIONS FROM RULE 10 PERMIT REQUIREMENTS

(Effective 1/1/69: Rev. Adopted & Effective 10/17/95
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Rev. Adopted 11/09/11 & Effective 05/09/12
Rev. Adopted (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 is applicable to any equipment, operation, or process that is subject to the provisions of the National Emissions Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, the New Source Performance Standards (NSPS), 40 CFR 60, the Air Pollution Control District (District) Regulation X—Standards of Performance for New Stationary Sources and/or Regulation XI—National Emission Standards for Hazardous Air Pollutants.~~

~~(232)~~ 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).

~~(343)~~ 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. ~~If no additional violations of Rule 51 are determined over a 2-year period, a permit may no longer be required.~~

~~(454)~~ This rule shall not apply to any equipment, operation, or process described in Subsections (d)(2) through (d)(19) that emits more than 100 ~~lb~~ pounds per day of any one of the following criteria air pollutants: particulate matter (PM10), oxides of nitrogen (NOx), volatile organic compound (VOC), oxides of sulfur (SOx), carbon monoxide (CO), or lead (Pb).

~~(5) This rule shall not apply to any equipment, operation, or process that is subject to the provisions of the National Emissions Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, the New Source Performance Standards (NSPS), 40 CFR 60, and the Air Pollution Control District (District) Regulation X—Standards of Performance for New Stationary Sources and/or Regulation XI—National Emission Standards for Hazardous Air Pollutants.~~

~~(65)~~ Except for equipment specified in Subsection (d)(20)(iii), Section (d) of this rule shall not apply to any ~~new or modified~~ 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 ~~an enclosure used to contain abrasive media that can only be entered through ports for gloved arms and hands when abrasive blasting is conducted~~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.

(234) **"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 (date of adoption).

~~(45)~~ **"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.

~~(356)~~ **"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, ~~if available, or in other supporting documentation for de-rated engines~~ establishing the maximum continuous brake horsepower as approved by the Air Pollution Control Officer.

~~(467)~~ **"CFR"** means Code of Federal Regulations.

~~(578)~~ **"Designated Workstation"** means an assigned area within the stationary source where a specified operation is conducted.

~~(89)~~ **"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.

~~(6910)~~ **"Exempt Compounds"** means the same as defined in Rule 2.

~~(71011)~~ **"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.

~~(81113)~~ **"Hazardous Air Pollutant (HAP)"** means an air contaminant identified in the Federal Clean Air Act, Title 1, Section 112 (b).

~~(91214)~~ **"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.

(~~13~~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.

(~~10~~17) "Major Stationary Source" means the same as defined in Rule 20.1.

(~~11~~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.

(~~12~~19) "Operating Day" means any calendar day during which the specified equipment is operated, or specified operations occur.

(~~13~~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.

(~~14~~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.

(~~15~~22) "Portable Emission Unit" means the same as defined in Rule 20.1.

(~~20~~23) "Preservative Oils and Compounds" means materials which do not contain solids, ~~that~~ and are applied on areas that are not intended to be painted such as cables and exterior surfaces to prevent corrosion and/or to provide lubrication.

(~~16~~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.

(~~17~~25) "~~Research and Development Equipment Operations" means equipment that is used to conduct research and development operations conducted to originate new or improved processes and/or products, where such equipment is operated that are performed by~~

~~technically trained personnel under the supervision of a research director, and is may not be used in the to manufacture of products or byproducts for sale or exchange for commercial profit, other than the first article deliverable product. This definition does not apply to a pilot plant facility.~~

(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.

(~~23~~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.

(~~18~~~~24~~27) “Stationary Internal Combustion Engine” means a spark or compression ignited, reciprocating internal combustion engine that is not a portable emission unit.

(~~19~~~~25~~28) “Stationary Source” means the same as defined in Rule 2.

(~~26~~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.

(~~20~~~~27~~30) “Toxic Air Contaminant” means the same as defined in Rule 2.

(~~21~~~~28~~31) “Volatile Organic Compound (VOC)” means the same as defined in Rule 2.

(~~22~~~~29~~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.

(~~23~~~~30~~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 ~~less than 200~~50~~200~~ brake horsepower or less or less.

(2) COMBUSTION AND HEAT TRANSFER EQUIPMENT

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

~~(ii) — RESERVED~~

~~(iii)~~ 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.

~~(iv)~~ 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.

~~(v)~~ 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.

~~(vi)~~ 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.

~~(vii)~~ Portable pile drivers and construction cranes that are routinely dismantled and transported to non-contiguous locations for temporary use. This exemption does not apply to diesel pile-driving hammers.

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

~~(ix)~~ Back-pack power blowers.

~~(x)~~ Orchard or citrus grove heaters.

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

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

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

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

~~(xv)~~ 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.

~~(xvixiv)~~ 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.

~~(xvixv)~~ 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~~EQUIPMENT AND RELATED~~RESEARCH AND DEVELOPMENT (R&D)~~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.

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

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

~~(ivv)~~ Research and development ~~equipment~~operations~~equipment~~, including associated wipe cleaning.

~~(vi)~~ Peptide and DNA synthesis operations.

(vii) Equipment used to manufacture~~Operations conducted to make~~Equipment used to manufacture the following products, provided that the total uncontrolled VOC emissions from all operations specified below do not exceed ~~2,000 pounds~~ 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, ~~and provided the uncontrolled emissions of VOCs from all such operations located at the stationary source do not exceed 5 tons per calendar year.~~

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

~~(vii) — Laboratory equipment and laboratory operations located at secondary schools, colleges, or universities and used exclusively for instruction.~~

(viii) 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 or 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 uses emits less than an average of 105 pounds of any material containing 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 2three 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) ~~Metal and ceramic deposition~~Thermal spraying operations where ~~all the~~ materials sprayed contain no cadmium, chromium, copper, lead, manganese or nickel, and provided the maximum spray gun capacity amount of material sprayed is less than 20 pounds per day at the stationary source. ~~This exemption does not apply when electric arc or flame spray guns are used in these operations.~~
- (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 ~~fiber~~ 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. ~~The exemptions listed in this Subsection (d)(9) shall not also apply to abrasive blasting operations where asbestos-containing materials are being removed.~~

(i) Abrasive Blasting cleaning 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~~ equipment or pots with a manufacturer's sand capacity rating of less than 100 pounds or less (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 wood waste. This exemption does not apply to any associated combustion equipment unless such equipment is also exempt pursuant to Subsection (d)(2) of this rule.~~

(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)~~ (vi) Equipment used for the pressing or storing of sawdust, wood chips, or wood shavings.

~~(vii)~~ (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)~~ (viii) Drilling machines for 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 an intact bag filter a control device that exhausts inside the an fully enclosed building where such equipment is located and provided that the amount of fiberglass collected in the bag filter is below 500 pounds per calendar year per facility. Monthly records of all fiberglass collected in the bag filter shall be maintained on site for 2 years and made available to the District upon request.

(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 ~~as defined in Rule 67.16(e)(4)~~ where ~~a~~ the print capacity of any individual printer which uses solvent based inks is less than 1,000 ft²/hr, or an operation where ~~a~~ 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, ~~as defined in Rule 67.16(e)(13)~~, provided that the records specified in Rule 67.16(f)(4) 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 ~~manufacturer's rating~~ maximum capacity of 1511 pounds per hour (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 ~~one million gallons~~ 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) Plastics manufacturing or fabrication operations, including reinforced plastic fabrication operations using ~~materials such as epoxy and/or polyester resins,~~ 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) 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 ~~3~~three years and be made available to the District upon request.

(15) COATING AND ADHESIVE APPLICATION EQUIPMENT AND OPERATIONS

~~For the purposes of this Subsection (d)(15), "Operation" means the coating of an individual substrate (e.g., wood or plastic or metal, etc.) or the application of an adhesive material.~~

(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 ~~3~~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. ~~This exemption does not apply to the application of rubberized asphalt.~~

(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 ~~3~~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) at a stationary source where the ~~uncontrolled~~ VOC emissions from such ~~operation~~ the application of liquid coatings or adhesive materials are 150 pounds or less per consecutive 12-month period, ~~excluding surface preparation and cleanup solvents~~. 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, ~~or~~ rollers, or marking pen.

~~(vi) Coating operations that exclusively use preservative oils and compounds as defined in Rule 67.9, lubricants, greases, or waxes containing no volatile organic solvents.~~

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

(viii) 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.

~~(ix)~~ viii Coating application equipment operations located at primary ~~or~~ secondary schools ~~or in schools of higher education~~ 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) ~~Equipment~~ Cold solvent cleaning or stripping operations and/or vapor degreasing operations that used exclusively utilize for surface preparation and cleaning if the VOC content of the aqueous material/water-based cleaning solvent materials with a VOC content of that does not exceed 50 grams per liter, as applied. 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.

~~(viii) Solvent wipe cleaning operations, not associated with any permitted operation, provided the solvent is applied from a container that minimizes emissions to the air, such as but not limited to, squeeze containers with narrow tips, spray bottles, or dispensers with press down caps; and the uncontrolled VOC emissions from all such operations located at the stationary source do not exceed 5 tons per calendar year, or the total purchase of solvents for such operations does not exceed~~

1,500 gallons per calendar year. All data and/or records necessary to demonstrate that this exemption is applicable, shall be maintained on-site for 2 years and made available to the District upon request.

(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 ~~calendar year~~ consecutive 12-months, or the total purchase or usage of solvents for such cleaning operations does not exceed 550 gallons per ~~calendar year~~ 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.

~~(ix) Surface preparation and solvent wipe cleaning operations, not associated with any permitted operation, provided:~~

~~(A) the VOC content of cleaning material is 50 grams/liter (0.42 lbs/gal), or less as used, and the total usage of solvents from all such operations at the stationary source does not exceed 3,000 gallons per consecutive 12-month period, or~~

~~(B) the total VOC vapor pressure of cleaning material is 8 mm Hg at 20°C (68°F) or less, and the uncontrolled VOC emissions from all such operations at the stationary source do not exceed 1,300 pounds per consecutive 12-month period.~~

~~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.~~

~~(x) Surface preparation and solvent wipe cleaning of electrical or electronic components, medical devices, laser optics or precision optics components, and operations exempt from Rule 66.1(d)(2), provided:~~

~~(A) such operations are not associated with any permitted operation, and~~

~~(B) the uncontrolled VOC emissions from all such operations at the stationary source do not exceed 2,500 pounds per consecutive 12-month period.~~

~~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.~~

~~(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.

(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. Dry cleaning touch-up operations using hand held spray applicators.~~

(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 ~~containing no volatile organic solvents~~, 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) Equipment used for wet cleaning (using water as a cleaning agent), washing or drying articles fabricated from cloth, fabric, or glass, where no volatile organic solvents are employed in the process and none of the articles being cleaned have residues of volatile organic solvents. Professional 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 ~~where no volatile organic solvents are used~~, provided that the VOC content of detergents and additives used does not exceed 50 grams per liter.

(vii) Professional 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.

~~(viii) Any dry cleaning, laundry or fabric related cleaning operation equipment listed above in Subsections (18)(iv), (18)(v), or (18)(vi) where the uncontrolled VOC emissions from all such operations at the stationary source do not exceed which does not emit more than an average of 5 pounds of VOCs per operating day for each calendar month. All records needed to calculate average daily VOC emissions, such as emission factors, VOC content of all materials used, number of operating days per calendar month, and daily or monthly records of material usage or purchase, shall be maintained on-site for three years and be made available to the District upon request.~~

(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 of 600 pounds per hour or less, 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 pharmaceutical, cosmetic or biotechnology manufacturing or blending operation producing or blending materials for use in cosmetic or pharmaceutical products and/or manufacturing cosmetic or pharmaceutical products by chemical processes, that emit less than an average of 15 pounds of VOCs 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.~~
- (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 VOCs 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 that the Air Pollution Control Officer determines to be a negligible source of air contaminants. This provision applies only to equipment or operations that have obtained a Certificate of Exemption in writing from the District. The Certificate of Exemption document must be maintained with the exempt equipment or be made readily available at all times and applies only to the specific equipment or operation described in the Certificate of Exemption document.~~

(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 ~~W~~wastewater treatment facilities, 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.

(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.

~~(xxiii)~~ 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.

~~(xxiv)~~ 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) Any agricultural source where the aggregate actual emissions, excluding fugitive PM10 emissions, from all stationary emission units are:~~

~~(A) less than 50% of the federal major source threshold for NOx and VOC; and~~

~~(B) less than do not exceed 2550 tons per year for CO, PM10, PM2.5, Pb or SOx; of each criteria pollutant and~~

~~(C) do not exceed less than 5 tons per year of any single HAP or 12.5 tons per year of combined HAPs.~~

(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.

~~(A) with a generation capacity of less than 0.1 pounds of grams of ozone per day, or~~

~~(B) with a generation capacity of less than 0.5 pounds of ozone per day, that capture and vent ozone emissions out a vertical unobstructed stack.~~

~~(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 ~~does not last~~ 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 effluent gas stream from the sample collection site is vented to 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.

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

(xxxii) 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.

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

(xxxiv) Except as otherwise provided in Subsection (d)(16)(x*), asbestos removal equipment and operations subject to, or exempt from, District Regulation XI 40 CFR Part 61, Subpart M – National Emission Standards for Asbestos.

(xxxv) 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) ~~Measurement of~~ The VOC content of all coating and adhesive materials containing more than 50 grams of VOC per liter ~~subject to this rule shall be conducted in accordance with~~ determined by the Environmental Protection Agency (EPA) Test 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 11, 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) ~~Measurement of~~ 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 conducted in accordance with the ~~determined by South Coast Air Quality Management District~~ SCAQMD Test Method 313-91 (Determination of Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry), June 1993 ~~February 1997, or by SCAQMD Method 308-91 (Quantitation of Compounds by Gas Chromatography), February 1993, or 313.~~

(3) ~~Measurement of~~ The initial boiling point of all materials subject to this rule shall be conducted ~~determined~~ in accordance with ASTM Standard Test Method D1078-05 ~~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 all 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," ~~as it exists on June 27, 1995~~ dated June 20, 1990.

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 ~~D2879-97 (2002)~~D2879-10 (Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope), or its most current version. ~~The solvent composition shall be determined using one of the following ASTM standard recommended practices: E168-99 (2004), E169-04, or E260-96 (2001), or their most current versions. The fraction of water and exempt compounds in the liquid phase shall be determined by using ASTM Standard Test Methods D3792-05 and D4457-02, or their most current versions, and shall be used to calculate the partial pressure of water and exempt compounds. The results of vapor pressure measurements obtained using ASTM Standard Test Method D2879-97 (2002), or its most current version, shall be corrected for partial pressure of water and exempt compounds.~~

(5) Reid Vapor Pressure pursuant to Subsections (c)(~~222932~~) and (d)(17) of this rule shall be measured in accordance with ASTM Standard Test Method ~~D323-99a~~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), ~~December 1996~~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 (*date of adoption*), 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 (*one year from date of adoption*).