

For the industries listed in red, there appears to be CTG or ACT guidance and most States have adopted rules. However California may have gone beyond the CTG levels to make tighter standards which other States may want to consider.

VOC control measures in California

Landfill gas emissions (SCAQMD rule 1150.1) 70% control, \$700/ton

Loading of Organic Liquid Cargo Vessels

Polyester Resin Operations

Adhesives and Sealants (SCAQMD rule 1168) 55% control, \$2,202/ton

Petroleum Flares and Relief Gas Oxidizers (EPA doesn't have a CTG or ACT specific to this but does require flares in certain industries.)

Pleasure craft coating operations (SCAQMD rule 1106.1)

Solvent cleaning operations

Surface coating of aircraft or aerospace vehicle parts (tighten existing rules)

Electronic Industry – Semiconductor Manufacturing (SCAQMD rule 1164) 70% control, \$5,976/ton

Surface coating of wood products – tighten existing rule

Graphic Arts (include lithographic and letterpress and solvent cleaning of ink application equipment, cleaning of adhesive application equipment – This is beyond RACT)

Regulation of the cleaning of application equipment used in architectural coating applications, require use of low VOC solvents for cleaning of spray application equipment

Pleasure craft fuel transfers

Wineries and breweries **I am not sure any rules have actually been adopted for this**

Solvent dry cleaners – phase out of transfer type machines (This is beyond the CTG)

Solvent degreasers – lower VOC content of solvent – This is beyond the CTG

Storage of VOC liquids – reduce tank size cutoff – This is beyond the CTG

Bakery emissions (EPA has an ACT) 40% control, \$1,470

Further controls from high emitting spray booths

Control from resin manufacturing (SCAQMD rule 1162)

Rubber, leather and glass coating (SCAQMD rule 1145)

Control of VOC from land-fills (SCAQMD rule 1158.1)

Control of emissions from decontamination of soil (SCAQMD rule 1166)

Control of VOC from ignition of barbecue charcoal **(This may not be a very big source and was controversial in South Coast when first adopted.)** (SCAQMD rule 1174)

Manufacture of cellular (foam) products (SCAQMD rule 1175)

Stage II gasoline vapor recovery (adopt California Enhanced vapor recovery (EVR) program. Also phase out exemptions for agriculture operations.) Use pressure relief valve on underground tank vent pipe 73%, \$1,080/ton (from vent pipe emissions)

Emission reduction from co-composting operations (SCAQMD rule 1133.2)

Food product operations, commercial charbroiling. (California has rule 1138 to control emission from restaurant operations and rule 1131, food product manufacturing and processing operations.) 83%, \$2960/ton for charbroiling

Screen printing operations (SCAQMD rule 1130.1)
Manufacture of coatings and ink (SCAQMD rule 1141.1)
Surfactant manufacture (SCAQMD rule 1141.2)
Polyester resin operations (SCAQMD rule 1162)
Outer Continental shelf regulations (SCAQMD rule 1186)
Portable fuel containers 33% control, \$581/ton
Fabric printing 97%, \$1,343/ton
Rubber and plastics manufacture (SCAQMD rule 11450 60% control, \$1,020

Other possible industries to control

(These industries may not have controls in California. They are VOC emitting processes for which no control has been identified by EPA. This may be just because they have not been studied extensively or there may not be any reasonable controls.)

Coffee roasting (may be covered under SCAQMD rule 1131)
Application of mold release on vinyl or plastic automobile parts (seats, dashboards etc.).
Require powder mold release agent rather than solvent borne liquid mold release agents. (People are trying to sell such products, but not many people are buying.)
Control liquid asphalt roof coating applications (Could be a big source, but don't know how to control)
Limit VOC content of automobile windshield washer fluid (Texas (Dallas) had a rule on this and California is considering something, but is still debating it)
Pesticide application 20% control, \$9,300/ton