

**PERMIT EXEMPTION GUIDANCE**

by M.K. Carol Lee  
July 18, 2006

The Bay Area Air Quality Management District’s [Regulation 2 Rule 1](#) describes the permit requirements for sources of air pollution. In general, any equipment or operation that emits pollutants into the atmosphere requires an Authority to Construct before installation of the equipment or start of the operation. Upon receipt of the Authority to Construct and after start-up of the equipment or operation, a Permit to Operate is required for continued operation of the equipment or operation. Any air pollution control equipment associated with a source that requires a District permit also requires an Authority to Construct and/or Permit to Operate from the District.

In general, unless it is excluded from District Regulations per Regulation 1 or exempted from District permit requirements by a specific section of Regulation 2-1, a permit is required for any source of air pollution. [Figure 2-1-101 Permit/Exemption Flow Chart](#) illustrates the process of determining whether permits are required for a specific source of air pollution.

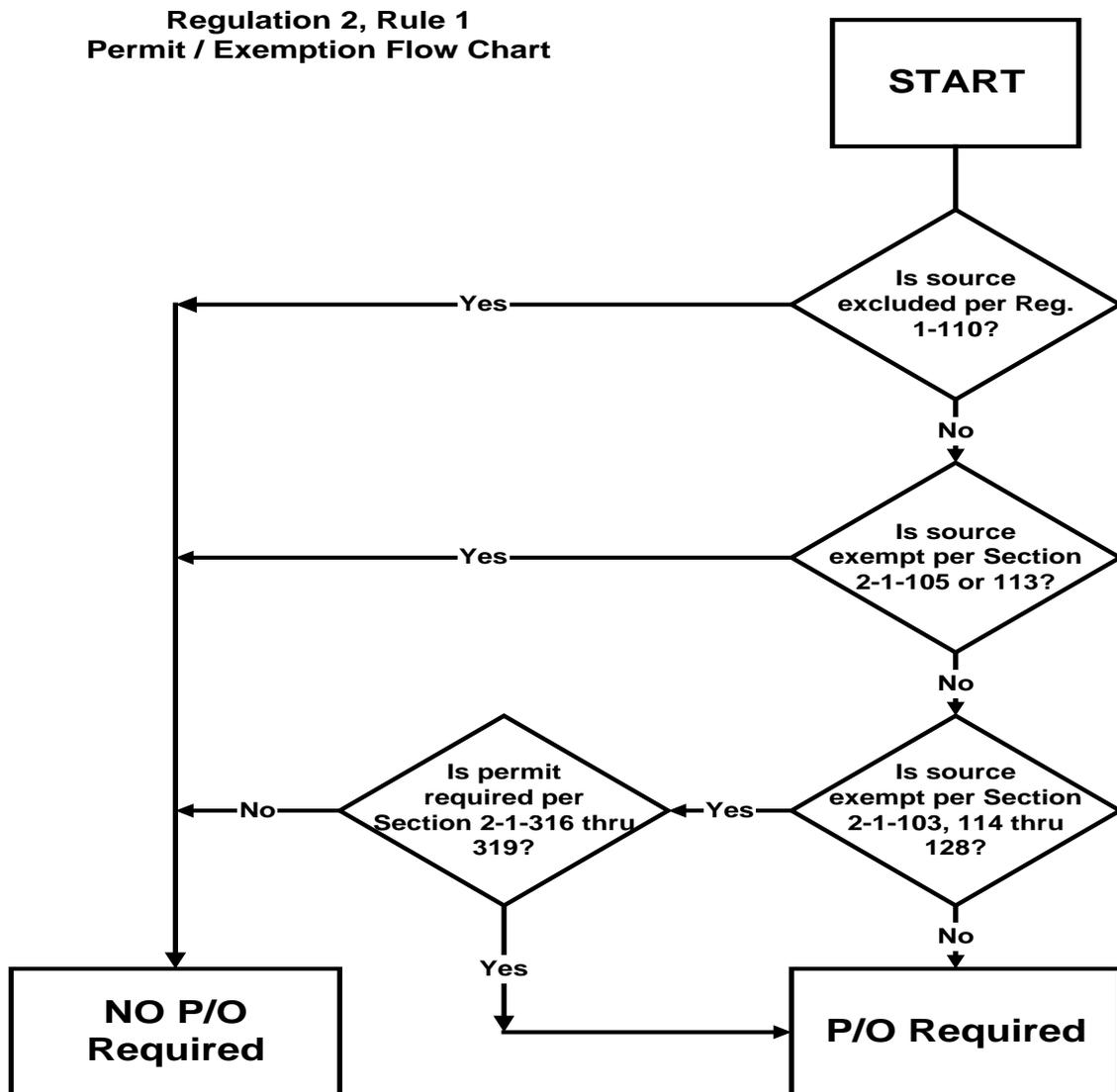


Figure 2-1-101

**Explanation of Figure 2-1-101**

1. First, review the proposed equipment or operation to see if it is excluded from District regulation per [Regulation 1-110](#). Permit exclusions exclude specific equipment or operations from any District regulation (including permitting requirements and operational standards). If the source meets one of the exclusions in [Regulation 1-110](#), then the source is exempt from permitting requirements, per the regulation it met.
2. If a source is not excluded per [Regulation 1-110](#), then review whether the source is exempt per Regulations [2-1-105](#) or [2-1-113](#). If the source meets one of the exemptions in Regulations [2-1-105](#) or [2-1-113](#), then the source is exempt from permitting requirements, per the regulation it met.
3. If none of the listed exemptions in Regulations [2-1-105](#) or [2-1-113](#) apply to the equipment or operation, then review Regulations [2-1-103](#) and [2-1-114 through 128](#) to see whether these exemption apply.
4. If none of the exemptions listed in Regulations [2-1-103](#) and [2-1-114 through 128](#) apply, then the source(s) most likely requires an Authority to Construct and/or Permit to Operate (go to [Permit Application Guidance](#) for instructions on applying for a permit.)
5. If one or more of the exemptions in Regulations [2-1-103](#) and [2-1-114 through 128](#) do apply,
  - a) The emissions of toxins from the source must be at a rate that it satisfies the District's Toxic Best Available Control requirements and risk limits of [Regulation 2, Rule 5](#).
  - b) The source cannot be a public nuisance pursuant to [Regulation 2-1-317](#);
  - c) If it is a new or modified source at a PSD Major Facility, the emissions from hazardous substances must be less than the quantities listed in [Regulation 2-1-318](#); and
  - d) The source must not emit more than 5 tons per year of any regulated air pollutant, after abatement ([Regulation 2-1-319.1](#)).
6. If the emissions do not result in the requirement of a permit per [Regulation 2-1-316 through 2-1-319](#), then the source(s) are most likely exempt from permitting requirements per the exemptions identified in Regulations [2-1-103](#) and [2-1-114 through 128](#).
7. If the emissions do result in the requirement of a permit per [Regulation 2-1-316 through 2-1-319](#), then the source(s) most likely requires an Authority to Construct and/or Permit to Operate (go to [Permit Application Guidance](#) for instructions on applying for a permit.)

Applicants who are unsure about whether or not a permit is required or wish confirmation of an exemption should submit a permit application for the source or operation; and the District will make the final determination. Questions regarding this matter can be directed to the [District](#).

The following are hyperlinks to the direct citation of the exemptions that apply for each source category.

**Select the type of equipment/operation from list below:**

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li><input type="checkbox"/> <a href="#">Combustion Equipment</a></li> <li><input type="checkbox"/> Petroleum Industry           <ul style="list-style-type: none"> <li>o <a href="#">Miscellaneous Equipment</a></li> </ul> </li> <li><input type="checkbox"/> <a href="#">Organic Liquid Storage Tanks</a></li> <li><input type="checkbox"/> <a href="#">Coating Operations</a> (including Graphic Arts Printing)           <ul style="list-style-type: none"> <li>o <a href="#">Policy – Graphic Arts</a></li> <li>o <a href="#">Policy – Digital Printing</a></li> <li>o <a href="#">Policy – Powder &amp; Radiation Cured Coatings</a></li> </ul> </li> <li><input type="checkbox"/> <a href="#">Solvent Cleaning</a></li> <li><input type="checkbox"/> Electronic &amp; Semiconductor Industry           <ul style="list-style-type: none"> <li>o <a href="#">Semiconductor Manufacturing</a></li> <li>o <a href="#">Printed Circuit Board Manufacturing</a></li> </ul> </li> <li><input type="checkbox"/> <a href="#">Waste Processing Industry</a></li> <li><input type="checkbox"/> <a href="#">Soil/Water Remediation</a></li> <li><input type="checkbox"/> Toxic Emitting Operations           <ul style="list-style-type: none"> <li>o <a href="#">Dry Cleaning Operations</a></li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Miscellaneous Operations           <ul style="list-style-type: none"> <li>o <a href="#">Portable Equipment</a></li> <li>o <a href="#">General Sources and Operations</a></li> <li>o <a href="#">Quarries, Mineral Processing and Biomass Facilities</a></li> <li>o <a href="#">Furnaces, Ovens and Kilns</a></li> <li>o <a href="#">Food and Agricultural Equipment</a></li> <li>o <a href="#">Material Working and Handling Equipment</a></li> <li>o <a href="#">Casting and Molding Equipment</a></li> <li>o <a href="#">Testing Equipment</a></li> <li>o <a href="#">Chemical Processing Equipment</a></li> <li>o <a href="#">Miscellaneous Equipment</a></li> <li>o <a href="#">Not Subject to Any Rule</a></li> </ul> </li> </ul> |
|--|--|

Excerpts from Regulation 1:

[Regulation 1-110](#)

- 1-110 Exclusions:** District Regulations shall not apply to the following:
- 110.1 Engines used to propel motor vehicles, and defined by the Vehicle Code of the State of California.
  - 110.2 Deleted May 17, 2000.
  - 110.3 Aircraft.
  - 110.4 Fires from residential heating and residential cooking.
  - 110.5 Open outdoor fires, other than for the disposal of waste propellants, explosives or pyrotechnics by manufacturing facilities; recreational fires and outdoor cooking fires, except as limited by Regulation 5.
  - 110.6 Any emission point which is not an intended opening and from which no significant quantities of air contaminants are emitted.
  - 110.7 Smoke generators intentionally operated to train observers in appraising the shade of emissions.
  - 110.8 Air contaminants, where purposely emitted for the sole purpose of a specific beneficial use, and where essentially all of the air contaminants are confined to the area in which such beneficial use is obtained. The quantity and nature of the air contaminants, and the proportion of air contaminants used in relation to amounts of other materials involved in the beneficial use of air contaminants, shall conform to accepted practice in type of use employed.
  - 110.9 Emissions arising from agriculture operations necessary for the growing of crops or the raising of fowl or animals, except as limited by Regulation 5, and as allowed by state law for Title V permits.  
(Renumbered 3/17/82; Amended 12/19/90; 11/3/93; 5/17/00; 5/2/01)

[Regulation 2-1-103](#) [see [policy](#)]

- 2-1-103 Exemption, Source not Subject to any District Rule:** Any source that is not already exempt from the requirements of Section 2-1-301 and 302 as set forth in Sections 2-1-105 to 2-1-128, is exempt from Section 2-1-301 and 302 if the source meets all of the following criteria:
- 103.1 The source is not in a source category subject to any of the provisions of Regulation 6<sup>(1)</sup>, Regulation 8<sup>(2)</sup> excluding Rules 1 through 4, Regulations 9 through 12; and
  - 103.2 The source is not subject to any of the provisions of Sections 2-1-316 through 319; and
  - 103.3 Actual emissions of precursor organic compounds (POC), non-precursor organic compounds (NPOC), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), PM<sub>10</sub> and carbon monoxide (CO) from the source are each less than 10 pounds per highest day. A source also satisfies this criterion if actual emissions of each pollutant are greater than 10 lb/highest day, but total emissions are less than 150 pounds per year, per pollutant.  
Note 1: Typically, any source may be subject to Regulation 6, Particulate Matter and Visible Emissions. For the purposes of this section, Regulation 6 applicability shall be limited to the following types of sources that emit PM<sub>10</sub>: combustion source; material handling/processing; sand, gravel or rock processing; cement, concrete and asphaltic concrete production; tub grinder; or similar PM<sub>10</sub>-emitting source, as deemed by the APCO.  
Note 2: If an exemption in a Regulation 8 Rule indicates that the source is subject to Regulation 8, Rules 1 through 4, then the source must comply with all applicable provisions of Regulation 8, Rules 1 through 4, to qualify for this exemption.
  - 103.4 The source is not an ozone generator (a piece of equipment designed to generate ozone) emitting 1 lb/day or more of ozone.  
(Adopted 6/7/95; Amended 5/17/00; 12/21/04)

[Regulation 2-1-105](#)

**2-1-105 Exemption, Registered Statewide Portable Equipment:** The following portable equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment complies with all applicable requirements of the Statewide Portable Equipment Registration Program (California Code of Regulations Title 13, Division 3, Chapter 3, Article 5).

- 105.1 Confined abrasive blasting
- 105.2 Portland concrete batch plants
- 105.3 Spark ignition or diesel fired internal combustion engines used in conjunction with the following types of operations:
  - 3.1 Well drilling service or workover rigs;
  - 3.2 Power generation, excluding cogeneration;
  - 3.3 Pumps;
  - 3.4 Compressors;
  - 3.5 Pile drivers;
  - 3.6 Welding;
  - 3.7 Cranes; and
  - 3.8 Wood chippers
- 105.4 Sand and Gravel screening, rock crushing, pavement crushing and recycling operations;
- 105.5 Unconfined abrasive blasting.

(Adopted 6/7/95; Amended 10/7/98; 5/17/00)

[Regulation 2-1-113](#)

**2-1-113 Exemption, Sources and Operations:**

- 113.1 The following sources and operations are exempt from the requirements of Sections 2-1-301 and 302, in accordance with the California Health and Safety Code:
  - 1.1 Single and multiple family dwellings used solely for residential purposes.
  - 1.2 Any equipment used in agricultural operations, in the growing of crops or the raising of fowl or animals which is exempt from permits pursuant to the Health & Safety Code.
  - 1.3 Any vehicle. Equipment temporarily or permanently attached to a vehicle is not considered to be a part of that vehicle unless the combination is a vehicle as defined in the Vehicle Code. Specialty vehicles may include temporarily or permanently attached equipment including, but are not limited to, the following: oil well production service unit; special construction equipment; and special mobile equipment.
  - 1.4 Tank vehicles with vapor recovery systems subject to state certification, in accordance with the Health and Safety Code.
- 113.2 The following sources and operations are exempt from the requirements of Sections 2-1-301 and 302:
  - 2.1 Road construction, widening and rerouting.
  - 2.2 Restaurants, cafeterias and other retail establishments for the purpose of preparing food for human consumption.
  - 2.3 Structural changes which do not change the quality, nature or quantity of air contaminant emissions.
  - 2.4 Any abatement device which is used solely to abate equipment that does not require an Authority to Construct or Permit to Operate.
  - 2.5 Architectural and industrial maintenance coating operations that are exclusively subject to Regulation 8, Rules 3 or 48, because coatings are applied to stationary structures, their appurtenances, to mobile

- homes, to pavements, or to curbs. This does not apply to coatings applied by the manufacturer prior to installation, nor to the coating of components removed from such structures and equipment.
- 2.6 Portable abatement equipment exclusively used to comply with the tank degassing control requirements of Regulation 8, Rule 5 and/or Regulation 8, Rule 40.
  - 2.7 Equipment that transports, holds or stores California Public Utilities Commission regulated natural gas, excluding drivers.
  - 2.8 Deleted May 17, 2000
  - 2.9 Deleted May 17, 2000
  - 2.10 Deleted May 17, 2000
  - 2.11 Teaching laboratories used exclusively for classroom experimentation and/or demonstration.
  - 2.12 Laboratories located in a building where the total laboratory floor space within the building is less than 25,000 square feet, or the total number of fume hoods within the building is less than 50, provided that Responsible Laboratory Management Practices, as defined in Section 2-1-224, are used. Buildings connected by passageways and/or corridors shall be considered as separate buildings, provided that structural integrity could be maintained in the absence of the passageways and/or corridors and the buildings have their own separate and independently operating HVAC and fire suppression systems. For the purposes of this subsection, teaching laboratories that are exempt per Section 2-1-113.2.11 are not included in the floor space or fume hood totals. In addition, laboratory units for which the owner or operator of the source can demonstrate that toxic air contaminant emissions would not occur, except under accidental or upset conditions, are not included in the floor space or fume hood totals.
  - 2.13 Maintenance operations on natural gas pipelines and associated equipment, provided that emissions from such operations consist solely of residual natural gas that is vented after the equipment is isolated or shut down.
  - 2.14 Space heating units that are not subject to Regulation 9, Rule 7, where emissions result solely from the combustion of natural gas or liquefied petroleum gas (e.g. propane, butane, isobutane, propylene, butylenes, and their mixtures) of less than 20 million BTU per hour heat input. Incinerators operated in conjunction with such sources are not exempt.
  - 2.15 Asbestos and asbestos containing material renovation or removal conducted in compliance with Regulation 11, Rule 2 and Regulation 3.
  - 2.16 Closed landfills that have less than 1,000,000 tons of decomposable solid waste in place and that do not have an operating landfill gas collection system.
  - 2.17 Closed landfills that have not accepted waste for at least 30 years and that never had a landfill gas collection system.
  - 2.18 Construction of a building or structure that is not itself a source requiring a permit.
- (Adopted 10/19/83; Amended 7/17/91; 6/7/95; 5/17/00; 11/15/00; 5/2/01)

[Regulation 2-1-114 through 128](#)

**2-1-114 Exemption, Combustion Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, only if the source does not emit pollutants other than combustion products, and those combustion products are not caused by the combustion of a pollutant generated from another source, and the source does not require permitting pursuant to Section 2-1-319.

- 114.1 Boilers, Heaters, Steam Generators, Duct Burners, and Similar Combustion Equipment:
  - 1.1 Any of the above equipment with less than 1 million BTU per hour rated heat input.
  - 1.2 Any of the above equipment with less than 10 million BTU per hour rated heat input if fired exclusively with natural gas (including compressed natural gas), liquefied petroleum gas (e.g. propane, butane, isobutane, propylene, butylenes, and their mixtures), or any combination thereof.
- 114.2 Internal Combustion Engines and Gas Turbines:
  - 2.1 Internal combustion (IC) engines and gas turbines with a maximum output rating less than or equal to 50 hp.
  - 2.2 Internal combustion (IC) engines and gas turbines used solely for instructional purposes at research, teaching, or educational facilities.
  - 2.3 Portable internal combustion engines which are at a location for less than 72 consecutive hours.
  - 2.4 Any engine mounted on, within, or incorporated into any vehicle, train, ship, boat, or barge used to provide propulsion for the vehicle, train, ship, boat, or barge. Facilities which include cargo loading or unloading from cargo carriers other than motor vehicles shall include the cargo carriers as part of the source which receives or loads the cargo.
  - 2.5 Any engine mounted on, within, or incorporated into any vehicle, train, ship, boat, or barge used to provide propulsion for the vehicle, train, ship, boat, or barge and which is also used to supply mechanical or electrical power to ancillary equipment (e.g., crane, drill, winch, etc.) which is affixed to or is a part of the vehicle, train, ship, boat, or barge. Facilities which include cargo loading or unloading from cargo carriers other than motor vehicles shall include the cargo carriers as part of the source which receives or loads the cargo.

(Adopted 10/19/83; Amended 7/17/91; 6/7/95; 5/17/00; 8/1/01)

**2-1-115 Exemption, Particulate Sources at Quarries, Mineral Processing and Biomass Facilities:** The following potential PM<sub>10</sub> sources are exempt from the requirements of sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319.

- 115.1 Sources located at quarrying; mineral or ore handling or processing; concrete production; asphaltic concrete production; marine bulk transfer stations; concrete or asphaltic concrete recycling; vehicle shredding; glass manufacturing; handling or processing of cement, coke, lime, flyash, fertilizer, or catalyst; or other similar facility which meets one of the following:
  - 1.1 Mixer and other ancillary sources at concrete or aggregate product production facilities with a maximum rated production capacity less than 15 cubic yards (yd<sup>3</sup>) per hour;
  - 1.2 Other source at a facility with a maximum throughput less than 5000 tons per year;
  - 1.3 Operating, loading and unloading a crusher or grinder which processes exclusively material with a moisture content greater than or equal to 20 percent by weight;
  - 1.4 Operating, loading and unloading the following sources which process exclusively material with a moisture content greater than or equal to 5 percent by weight:
    - 1.4.1 Screen or other size classification;
    - 1.4.2 Conveyor, screw, auger, stacker or bucket elevator;
    - 1.4.3 Grizzly, or other material loading or unloading;
    - 1.4.4 Storage silos;
    - 1.4.5 Storage or weigh hopper/bin system.
  - 1.5 Haul or access roads;

- 1.6 Drilling or blasting.
- 115.2 Sources located at biomass recycling, composting, landfill, POTW, or related facilities specializing in the operation of, but not limited to, the following:
  - 2.1 Tub grinder powered by a motor with a maximum output rating less than 10 horsepower;
  - 2.2 Hogger, shredder or similar source powered by a motor with a maximum output rating less than 25 horsepower;
  - 2.3 Other biomass processing/handling sources at a facilities with a total throughput less than 500 tons per year.

(Amended 6/7/95; 5/17/00)

**2-1-116 Exemption, Furnaces, Ovens and Kilns:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319.

- 116.1 Porcelain enameling furnaces, porcelain enameling ovens, vitreous enameling furnaces or vitreous enameling drying ovens.
- 116.2 Crucible furnaces, pot furnaces, induction furnaces, cupolas, electric arc furnaces, reverberatories, or blast furnaces with a capacity of 1000 lbs or less each.
- 116.3 Crucible furnaces, pot furnaces, or induction furnaces for sweating or distilling that process 100 tons per year of all metals or less.
- 116.4 Drying or heat-treating ovens with less than 10 million BTU per hour capacity provided that a) the oven does not emit pollutants other than combustion products and b) the oven is fired exclusively with natural gas (including compressed natural gas), liquefied petroleum gas (e.g. propane, butane, isobutane, propylene, butylenes, and their mixtures), or any combination thereof.
- 116.5 Ovens used exclusively for the curing of plastics which are concurrently being vacuum held to a mold, or for the softening and annealing of plastics.
- 116.6 Ovens used exclusively for the curing of vinyl plastisols by the closed mold curing process.
- 116.7 Ovens used exclusively for curing potting materials or castings made with epoxy resins.
- 116.8 Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity or any combination thereof.
- 116.9 Parts cleaning, bake-off, and similar ovens that meet both of the following:
  - 9.1 Oven is equipped with a secondary combustion chamber or abated by a fume incinerator; and
  - 9.2 Internal oven volume is 1 cubic yard or less.
- 116.10 Electric ovens used exclusively for curing or heat-treating where no significant off-gassing or evaporation of any air contaminants occurs.

(Adopted 10/19/83; Amended 7/17/91; 6/7/95; 5/17/00)

**2-1-117 Exemption, Food and Agricultural Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319.

- 117.1 Smokehouses or barbecue units in which the maximum horizontal inside cross sectional area does not exceed 20 square feet.
- 117.2 Equipment at facilities other than restaurants, cafeterias or other retail operations, which is used to dry, cook, fry, bake, or grill less than 1000 tons per year of food products.
- 117.3 Any oven with a total production of yeast leavened bakery products of less than 10,000 pounds per operating day, averaged over any period of seven consecutive days, and which is heated either electrically or exclusively by natural gas firing with a maximum capacity of less than 10 million BTU per hour.
- 117.4 Equipment used exclusively to grind, blend, package, or store tea, cocoa, spices, or coffee.

- 117.5 Equipment used to dry, mill, grind, blend, or package less than 1000 tons per year of dry food products such as seeds, grains, corn, meal, flour, sugar, and starch.
- 117.6 Equipment used to convey, transfer, clean, or separate less than 1000 tons per year of dry food products or waste from food production operations.
- 117.7 Storage equipment or facilities containing dry food products; which are not vented to the outside atmosphere, or which handle less than 1000 tons per year.
- 117.8 Coffee, cocoa and nut roasters with a roasting capacity of less than 15 pounds of beans or nuts per hour; and any stoners or coolers operated in conjunction with these roasters.
- 117.9 Containers, reservoirs, tanks, or loading equipment used exclusively for the storage or loading of beer, wine or other alcoholic beverages.
- 117.10 Fermentation tanks for beer or wine. Fermentation tanks used for the commercial production of yeast for sale are not exempt.
- 117.11 Brewing operations at facilities producing less than 3 million gallons per year of beer.
- 117.12 Fruit sulfuring operations at facilities producing less than 10 tons per year of sulfured fruits and vegetables.

(Adopted 10/19/83; Amended 4/16/86; 7/1791; 6/7/95; 5/17/00)

**2-1-118 Exemption, Surface Preparation and Cleaning Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319.

- 118.1 Permanent abrasive blasting source, as defined by Regulation 12, Rule 4, that has a confined volume less than 100 cubic feet (ft<sup>3</sup>) and is abated by a particulate filter.
- 118.2 Blast cleaning equipment using a suspension of abrasive in water.
- 118.3 Portable abrasive blasting equipment used on a temporary basis within the District.
- 118.4 Equipment, including solvent cold cleaners using an unheated solvent mixture for surface preparation, cleaning, wipe cleaning, fluxing or stripping by use of solutions with a VOC content less than or equal to 50 grams per liter (0.42 lb/gal).
- 118.5 Equipment using a heated solvent mixture for steam cleaning, surface preparation, fluxing, stripping, wipe cleaning, washing or drying products, provided that a) only solutions containing less than 2.5 percent VOC (wt) are used; and b) any combustion sources used in the process are exempt under Section 2-1-114.
- 118.6 Equipment or operations which use unheated solvent and which contain less than 1 gallon of solvent or have a liquid surface area of less than 1 ft<sup>2</sup>. This exemption does not apply to solvent stations at semiconductor manufacturing operation fabrication areas or aerospace stripping operations.
- 118.7 Deleted December 21, 2004
- 118.8 Batch solvent recycling equipment where all of the following apply:
  - 8.1 Recovered solvent is used primarily on site (more than 50% by volume); and
  - 8.2 Maximum heat input (HHV) is less than 1 million BTU per hour; and
  - 8.3 Batch capacity is less than 150 gallons.
- 118.9 Wipe cleaning at a facility with a net solvent usage less than 20 gallons per year, or which emits to the atmosphere less than 150 lb/year of VOC from all wipe cleaning operations. At a facility with total wipe cleaning emissions greater than 150 lb/yr, wipe cleaning operations may be grouped per Section 2-1-401.4.
- 118.10 Any solvent cleaning or surface preparation source which employs only non-refillable hand held aerosol cans.

118.11 Spray gun cleaning performed in compliance with Regulation 8, provided the cleaning is associated with a source, such as a spray booth, subject to the requirements of Section 2-1-301 and 302.

(Adopted 10/19/83; Amended 4/16/86; 8/2/89; 7/17/91; 6/7/95; 5/17/00; 12/21/04)

**2-1-119 Exemption, Surface Coating and Printing Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319.

119.1 Any powder coating operation, or radiation cured coating operation where ultraviolet or electron beam energy is used to initiate a reaction to form a polymer network.

119.2 Any coating, adhesive, dipping, laminating, printing, screening, masking, electrodeposition, resist application, or similar source or operation at any facility which:

2.1 Consumes a total of less than 30 gallons of coating and ink per year on a facility wide basis, or emits less than 150 pounds per year of uncontrolled VOC on a facility wide basis, resulting from the application of coatings and ink; or

2.2 Uses exclusively materials that contain less than one percent VOC (wt).

At a facility with coating emissions greater than 150 lb/yr, coating operations may be grouped per Section 2-1-401.3.

119.3 Any coating source which employs only non-refillable hand held aerosol cans.

119.4 An oven associated with an exempt coating source, provided that the oven is electrically heated, or the oven is fired exclusively with natural gas, liquefied petroleum gas (e.g. propane, butane, isobutane, propylene, butylenes, and their mixtures) and the maximum firing rate is less than 10 million BTU per hour.

(Adopted 10/19/83; Amended 4/16/86; 7/17/91; 6/7/95; 5/17/00; 12/21/04)

**2-1-120 Exemption, Dry Cleaning Equipment:** Any dry cleaning facility which uses less than 700 gallons of petroleum solvents or any other non-halogenated solvent in any single year is exempt from the requirements of Sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319. Equipment which uses perchloroethylene or any other halogenated solvent is not exempt.

(Adopted 10/19/83; Amended 7/17/91; 6/7/95; 5/17/00)

**2-1-121 Exemption, Material Working and Handling Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319.

121.1 Equipment used for buffing, carving, cutting, drilling, grinding, machining, planing, routing, sanding, sawing, shredding, stamping or turning of wood, ceramic artwork, ceramic precision parts, leather, metals, plastics, rubber, fiberboard, masonry, glass, silicon, semiconductor wafers, carbon or graphite, provided that organic emissions from the use of coolant, lubricant, or cutting oil are 5 ton/yr or less.

121.2 Equipment used for pressing or storing sawdust, wood chips or wood shavings.

121.3 Equipment used exclusively to mill or grind coatings and molding compounds in a paste form provided the solution contains less than one percent VOC (wt).

121.4 Tumblers used for the cleaning or deburring of metal products without abrasive blasting.

121.5 Batch mixers with a rated working capacity of 55 gallons or less.

121.6 Mixing equipment provided no material in powder form is added and mixture contains less than one percent VOC (wt).

121.7 Equipment used exclusively for the mixing and blending of materials at ambient temperature to make water based adhesives.

- 121.8 Equipment used exclusively for the mixing and packaging of lubricants or greases.
- 121.9 Presses used exclusively for extruding metals, minerals, plastics or wood.
- 121.10 Presses used for the curing of rubber products and plastic products. The use of mold release products or lubricants is not exempt unless the VOC content of these materials is less than or equal to 1 percent, by weight, or unless the total facility-wide uncontrolled VOC emissions from the use of these materials are less than 150 lb/yr.
- 121.11 Platen presses used for laminating.
- 121.12 Roll mills or calendars for rubber or plastics.
- 121.13 Equipment used exclusively for forging, pressing, rolling, stamping or drawing metals or for heating metals immediately prior to forging, pressing, rolling, stamping or drawing, provided that: (1) maximum fuel use rate is less than 10 million BTU/hr; (2) no lubricant with an initial boiling point less than 400°F is used; and (3) organic emissions are 5 ton/yr or less.
- 121.14 Atmosphere generators used in connection with metal heat treating processes.
- 121.15 Equipment used exclusively for the sintering of glass or metals.
- 121.16 Equipment used exclusively for the melting or applying of wax containing less than one percent VOC (wt).
- 121.17 Equipment used exclusively for conveying and storing plastic pellets.
- 121.18 Solid waste transfer stations that receive or load out a total of all material less than 50 tons/day.
- 121.19 Inactive solid waste disposal sites which do not have an operating landfill gas collection system.

(Adopted 10/19/83; Amended 7/17/91; 6/7/95; 5/17/00)

**2-1-122 Exemption, Casting and Molding Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319.

- 122.1 Molds used for the casting of metals.
- 122.2 Foundry sand mold forming equipment to which no heat is applied, except processes utilizing organic binders yielding in excess of 0.25% free phenol by weight of sand.
- 122.3 Shell core and shell-mold manufacturing machines.
- 122.4 Equipment used for extrusion, compression molding and injection molding of plastics. The use of mold release products or lubricants is not exempt unless the VOC content of these materials is less than or equal to 1 percent, by weight, or unless the total facility-wide uncontrolled VOC emissions from the use of these materials are less than 150 lb/yr.
- 122.5 Die casting machines.

(Adopted 10/19/83; Amended 7/17/91; 6/7/95; 5/17/00)

**2-1-123 Exemption, Liquid Storage and Loading Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319.

- 123.1 Storage tanks and storage vessels having a capacity of less than 260 gallons.
- 123.2 Tanks, vessels and pumping equipment used exclusively for the storage or dispensing of any aqueous solution which contains less than 1 percent (wt) organic compounds. Tanks and vessels storing the following materials are not exempt.
  - 2.1 Sulfuric acid with an acid strength of more than 99.0% by weight.
  - 2.2 Phosphoric acid with an acid strength of more than 99.0% by weight.
  - 2.3 Nitric acid with an acid strength of more than 70.0% by weight.
  - 2.4 Hydrochloric acid with an acid strength of more than 30.0% by weight.
  - 2.5 Hydrofluoric acid with an acid strength of more than 30.0% by weight.

- 2.6 More than one liquid phase, where the top phase contains more than one percent VOC (wt).
- 123.3 Containers, reservoirs, tanks or loading equipment used exclusively for:
  - 3.1 Storage or loading of liquefied gases.
  - 3.2 Storage or loading of organic liquids or mixtures containing organic liquids; where the initial boiling point of the organics is greater than 302°F and exceeds the actual storage temperature by at least 180°F. This exemption does not apply to the storage or loading of asphalt or asphalt emulsion with a sulfur content equal to or greater than 0.5 wt%.
  - 3.3 The storage or loading of petroleum oils with an ASTM D-93 (PMCC) flash point of 130°F or higher, when stored or loaded at a temperature at least 36°F below the flash point.
  - 3.4 The storage or loading of lubricating oils.
  - 3.5 The storage of fuel oils with a gravity of 40 API or lower and having a capacity of 10,000 gallons or less.
  - 3.6 The storage or loading of liquid soaps, liquid detergents, tallow, or vegetable oils, waxes or wax emulsions.
  - 3.7 The storage of asphalt or asphalt emulsion with a sulfur content of less than 0.5 wt%. This does not include the storage of asphalt cutback with hydrocarbons having an initial boiling point of less than 302°F.
  - 3.8 The storage of wine, beer or other alcoholic beverages.
  - 3.9 The storage of organic salts or solids in an aqueous solution or suspension, provided that no liquid hydrocarbon layer forms on top of the aqueous phase.
  - 3.10 The storage or loading of fuel oils with a gravity of 25 API or lower.
  - 3.11 The storage and/or transfer of an asphalt-water emulsion heated to 150°F or less.
- 123.4 Tank seal replacement. For any tank subject to Regulation 8, Rule 5, any new seal must comply with the applicable provisions of Regulation 8, Rule 5, and the District must receive written notification of the tank source number and seal type at least three days prior to the installation.

(Adopted 10/19/83; Amended 7/11/84; 7/17/91; 6/7/95; 5/17/00)

**2-1-124 Exemption, Semiconductor Manufacturing:** Semiconductor fabrication area(s) at a facility which complies with all of the following are exempt from the requirements of Sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319.

- 124.1 Net solvent usage is less than 20 gallons of VOC per year on a facility wide basis; or uncontrolled VOC emissions to the atmosphere resulting from the usage of solvent are less than 150 pounds per year of VOC on a facility wide basis, and
- 124.2 Maskant and/or coating usage is less than 30 gallons per year, on a facility wide basis; or uncontrolled VOC emissions from the application of maskant and coatings are less than 150 pounds per year on a facility wide basis.

(Adopted 10/19/83; Amended 1/9/85; 4/16/86; 7/17/91; 6/7/95; 10/20/99; 5/17/00)

**2-1-125 Exemption, Printed Circuit Board Manufacturing Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319.

- 125.1 Equipment used exclusively for:
  - 1.1 Plating of printed circuit boards.
  - 1.2 Buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding or turning of printed circuit boards.
  - 1.3 Soldering. This section does not exempt fluxing and finger cleaning (see Section 2-1-118.4).

(Adopted 10/19/83; Amended 7/17/91; 6/7/95; 5/17/00)

- 2-1-126 Exemption, Testing Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319.
- 126.1 Equipment used for hydraulic or hydrostatic testing.
  - 126.2 Bench scale laboratory equipment or processes used exclusively for chemical or physical analyses or experimentation, quality assurance and quality control testing, research and development, or similar bench scale equipment, excluding pilot plants.
  - 126.3 Equipment used for inspection of metal products.  
(Adopted 10/19/83; Amended 7/17/91; 6/7/95; 5/17/00)
- 2-1-127 Exemption, Chemical Processing Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319.
- 127.1 Equipment used exclusively for the dyeing or stripping (bleaching) of textiles provided that only solutions containing less than one percent VOC (wt) are used.
  - 127.2 Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy.
  - 127.3 Containers, reservoirs, or tanks used exclusively for electrolytic plating with, or electrolytic polishing of, or electrolytic stripping of the following metals: aluminum, brass, bronze, cadmium, copper, iron, nickel, tin, zinc and precious metals.
  - 127.4 Containers, reservoirs, or tanks used exclusively for etching (not chemical milling), except where ammonia or ammonium-based etchants are used.  
(Adopted 10/19/83; Amended 7/17/91; 6/7/95; 5/17/00)
- 2-1-128 Exemption, Miscellaneous Equipment:** The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the source does not require permitting pursuant to Section 2-1-319.
- 128.1 Comfort air conditioning or comfort ventilating systems which are not designed to remove air contaminants generated by or released from specific units of equipment.
  - 128.2 Refrigeration units except those used as, or in conjunction with, air pollution control equipment.
  - 128.3 Vacuum producing devices in laboratory operations which are used exclusively in connection with other equipment which is exempted by this Rule, and vacuum producing devices which do not remove or convey air contaminants from another source.
  - 128.4 Water cooling towers and water cooling ponds not used for evaporative cooling of process water, or not used for evaporative cooling of water from barometric jets or from barometric condensers.
  - 128.5 Natural draft hoods, natural draft stacks or natural draft ventilators.
  - 128.6 Vacuum cleaning system used exclusively for industrial commercial or residential housekeeping purposes.
  - 128.7 Equipment used to liquefy or separate oxygen, nitrogen or the rare gases from the air.
  - 128.8 Equipment used exclusively to compress or hold dry natural gas, excluding drivers.
  - 128.9 Equipment used exclusively for bonding lining to brake shoes.
  - 128.10 Equipment used exclusively for the manufacture of water emulsions of waxes, greases or oils.
  - 128.11 Brazing, soldering or welding equipment.
  - 128.12 Pharmaceutical manufacturing equipment with annual VOC emissions less than 150 pounds per source. Material working and handling equipment such as mills, grinders, blenders, granulators, tablet presses, capsule fillers, packagers, and conveyors are only exempt if the source also processes less than 100 tons per year of pharmaceutical products.

- 128.13 Equipment used exclusively to blend or package cosmetics.
  - 128.14 Any wastewater (oil-water) separator, as defined in Regulation 8, Rule 8, which processes less than 200 gallons per day of waste water containing organic liquids.
  - 128.15 Exploratory drilling activities for methane recovery at waste disposal sites, for natural gas or for oil. Production wells for the above operations are not exempt.
  - 128.16 Passive aeration of soil, only if:
    - 16.1 The duration of the passive aeration operation will not exceed three months, and
    - 16.2 The soil is not being used as a cover material at a landfill.
  - 128.17 Ozone generators which produce less than 1 pound per day of ozone.
  - 128.18 Any source or operation which exclusively uses consumer products regulated by the California Air Resources Board (California Code of Regulations Title 17, Article 2, Sections 94507-94517).
  - 128.19 Any source or operation deemed by the APCO to be equivalent to a source or operation which is expressly exempted by Sections 2-1-113 through 128.
  - 128.20 Wastewater pumping stations where no treatment is performed, excluding any drivers.
  - 128.21 Modification, replacement, or addition of fugitive components (e.g. valves, flanges, pumps, compressors, relief valves, process drains) at existing permitted process units at petroleum refineries, chemical plants, bulk terminals or bulk plants, provided that the cumulative emissions from all additional components installed at a given process unit during any consecutive twelve month period do not exceed 10 lb/day, and that the components meet applicable requirements of Regulation 8 rules.
  - 128.22 Fuel cells that use phosphoric acid, molten carbonate, proton exchange membrane, solid oxide or equivalent technologies.
  - 128.23 Structure demolition that does not involve asbestos or asbestos containing materials.
- (Adopted 10/19/83; Amended 7/16/86; 7/17/91; 6/7/95; 5/17/00; 11/15/00; 12/21/04)

[Regulation 2-1-301](#)

**2-1-301 Authority to Construct:** Any person who, after July, 1972, puts in place, builds, erects, installs, modifies, modernizes, alters or replaces any article, machine, equipment or other contrivance, the use of which may cause, reduce or control the emission of air contaminants, shall first secure written authorization from the APCO in the form of an authority to construct. Routine repairs, maintenance, or cyclic maintenance that includes replacement of components with identical components is not considered to be an alteration, modification or replacement for the purpose of this Section unless the APCO determines the changes to be non-routine. The use or operation of the source shall initiate the start-up period in accordance with Section 2-1-411.

(Amended 3/17/82; 10/19/83; 7/17/91; 5/17/00)

[Regulation 2-1-302](#)

**2-1-302 Permit to Operate:** Before any person, as described in Section 2-1-401, uses or operates any article, machine, equipment or other contrivance, the use of which may cause, reduce or control the emission of air contaminants, such person shall first secure written authorization from the APCO in the form of a permit to operate.

- 302.1 Permit to Operate, MFR: Any facility subject to the requirements of Regulation 2-6, Major Facility Review, shall comply with the permitting requirements included herein in addition to securing a permit to operate under this rule.
- 302.2 Permit to Operate, Accelerated Permitting Program: Installation and operation of a new or modified source or abatement device which qualifies

for the Accelerated Permitting Program under Section 2-1-106 may commence immediately following the submittal of a complete permit application. A temporary Permit to Operate will be issued as soon as the APCO determines that the application is complete. Action shall be taken on the application within 35 working days of receipt of a complete application, in accordance with Section 2-1-408, provided that the applicable offset provisions of Regulation 2, Rule 2, Sections 302 and 303 are satisfied. During periods that the source is operating without a Permit to Operate, the operator shall keep records sufficient to demonstrate that emissions do not exceed qualifying levels for the Accelerated Permitting Program.

- 302.3 Permit to Operate, Temporary Operation: A temporary permit may be obtained to allow an operator to test equipment, processes, or new formulations. A temporary permit may also be obtained for a temporary source which replaces critical equipment during scheduled maintenance. The APCO may issue a non-renewable temporary Permit to Operate a temporary operation at any source, subject to the following:
- 3.1 The proposed operation will comply with all requirements of Regulation 1 and Regulations 5 through 12.
  - 3.2 The permit shall expire 3 months after issuance.
  - 3.3 The operator shall provide offsets, at a ratio of 1.15 to 1, for all increased emissions of NO<sub>x</sub>, POC, and PM<sub>10</sub> resulting from the use of the temporary permit.
  - 3.4 The operator shall certify that the temporary operation is for one of the following purposes:
    - 4.1 Equipment testing
    - 4.2 Process testing, including new formulations
    - 4.3 Temporary replacement of an existing permitted source with an identical or functionally equivalent source
- (Amended 11/3/93; 6/7/95; 10/7/98; 11/15/00)

[Regulation 2-1-316 through 2-1-319](#)

- 2-1-316 New or Modified Sources of Toxic Air Contaminants or Hazardous Air Pollutants:** Notwithstanding any exemption contained in Section 2-1-103 or Section 114 through 128, any new or modified source meeting any of the following criteria shall be subject to the requirements of Regulation 2, Rule 1, Section 301 and/or 302.
- 316.1 If a new or modified source emits one or more toxic air contaminants in quantities that exceed the limits listed in Table 2-1-316, then the source shall be subject to the requirements of Sections 2-1-301 and 302, unless the owner or operator of the source can demonstrate to the satisfaction of the APCO, within 90 day of request per Regulation 1, Section 441, that the source would pass a risk screening analysis, as defined in Section 2-1-225, performed according to the current Air Toxic Risk Screening Procedure.
  - 316.2 If a new or modified source, or group of related sources, as defined in the District's current Risk Management Policy, in a proposed construction or modification will emit 2.5 or more tons per year of any single hazardous air pollutant or 6.25 or more tons per year of any combination of hazardous air pollutants, then the source or group of sources shall be subject to the requirements of Sections 2-1-301 and 302.
- (Adopted 4/16/86; Amended 7/17/91; Renumbered and Amended 6/7/95; Amended 5/17/00)
- 2-1-317 Public Nuisance Sources:** Notwithstanding any exemption contained in Section 2-1-103 or Section 114 through 128, any new or modified source meeting any of the following criteria shall be subject to the requirements of Regulation 2, Rule 1, Section 301 and/or 302. If any exempt source receives two or more public nuisance violations, under Regulation 1, Section 301 or Section 41700 of the California Health & Safety Code, within any consecutive 180-day period, then the source shall be

subject to the requirements of Section 2-1-301 and 302. Such a source will be treated as loss of exemption source under Section 2-1-414, and will be subject to the annual permit to operate fee specified in Regulation 3. This section does not apply to a source that is exempt per section 2-1-113.

(Adopted 6/7/95; Amended 5/17/00)

**2-1-318 Hazardous Substances:** Notwithstanding any exemption contained in Section 2-1-103 or Section 114 through 128, any new or modified source meeting any of the following criteria shall be subject to the requirements of Regulation 2, Rule 1, Section 301 and/or 302. If a new or modified source at a PSD Major Facility, as defined in Regulation 2, Rule 2, Section 220.3, emits the following air contaminants in excess of the quantities listed below, then it is subject to the requirements of Sections 2-1-301 and 302.

- 318.1 0.6 ton per year of lead,
- 318.2 0.007 ton per year of asbestos (excepting demolition, renovation, and waste disposal),
- 318.3 0.0004 ton per year of beryllium,
- 318.4 0.1 ton per year of mercury,
- 318.5 1 ton per year of vinyl chloride,
- 318.6 3 tons per year of fluorides,
- 318.7 7 tons per year of sulfuric acid mist, and
- 318.8 10 tons per year of reduced sulfur compounds (including hydrogen sulfide).

(Adopted 10/19/83; Renumbered and Amended 6/7/95; Amended 5/17/00)

**2-1-319 Source Expressly Subject to Permitting Requirements:** Notwithstanding any exemption contained in Section 2-1-103 or Section 114 through 128, any source meeting any of the following criteria shall be subject to the requirements of Section 2-1-302:

- 319.1 The emission rate of any regulated air pollutant from the source is greater than 5 tons per year, after abatement.
- 319.2 The source is subject to the requirements of Section 2-1-316, 317, or 318.

(Adopted May 17, 2000)

**Table 2-1-316  
Toxic Air Contaminant Trigger Levels**

<b>Compound</b>	<b>CAS Number</b>	<b>Trigger Level (lb/year)</b>
Acetaldehyde	75070	7.2E+01
Acetamide	603505	9.7E+00
Acrolein	107028	3.9E+00
Acrylamide	79061	1.5E-01
Acrylonitrile	107131	6.7E-01
Allyl chloride	107051	3.3E+01
Aminoanthraquinone, 2	117793	2.1E+01
Ammonia	7664417	1.9E+04
Aniline	62533	1.2E+02
Arsenic and arsenic compounds (inorganic)	7440382*	2.5E-02
Asbestos	1332214	3.0E-03
Benzene	71432	6.7E+00
Benzidine (and its salts)	92875*	1.4E-03
Benzyl chloride (see chlorotoluenes)	100447	3.9E+00
Beryllium and beryllium compounds	7440417*	1.4E-02
Bis(2-chloro-ethyl)ether	111444	2.7E-01
Bis(chloro-methyl)ether	542881	1.5E-02
Bromine and bromine compounds (inorganic)	7726956*	3.3E+02
Butadiene, 1,3-	106990	1.1E+00
Butyl alcohol, tert-	75650	1.4E+05
Cadmium and cadmium compounds	7440439*	4.6E-02
Carbon disulfide	75150	1.4E+04
Carbon tetrachloride	56235	4.6E+00
Chlorinated dibenzodioxins and dibenzofurans (TCDD equivalent)	1746016*	1.2E-06
Chlorinated paraffins	*	7.7E+00
Chlorine	7782505	1.4E+03
Chlorobenzene	108907	1.4E+04
Chlorofluorocarbons	*	1.4E+05
Chloroform	67663	3.6E+01
Chloro-o-phenylenediamine, 4-	95830	4.2E+01
Chloro-o-toluidine, p-	95692	2.5E+00
Chlorophenol, 2-	108430	3.5E+03
Chloropicrin	76062	3.3E+02
Chloroprene	126998	1.9E+03
Chlorotoluenes	100447*	2.3E+03
Chromium (hexavalent) and chromium (hexavalent) compounds	18540299*	1.3E-03
Copper and copper compounds	7440508*	4.6E+02
Cresidine, p-	120718	4.4E+00
Cresol	1319773	3.5E+04
Cupferron	135206	3.1E+00
Diaminoanisole, 2,4-	96128	2.9E+01
Dibromo-3-chloropropane, 1,2- (DBCP)	96128	9.7E-02
Dichlorobenzene, 1,4-	106467	1.8E+01
Dichlorobenzidene, 3,3'-	91941	5.6E-01
Dichloroethane, 1,1-	75343	1.2E+02
Dichloroethylene, 1,1- (see vinylidene chloride)		
Diesel exhaust particulate matter	n/a	6.4E-01

<b>Compound</b>	<b>CAS Number</b>	<b>Trigger Level (lb/year)</b>
Diethylaminoethanol	100378	2.1E+04
Diethylhexylphthalate (DEHP)	117817	8.1E+01
Dimethylaminoazobenzene, p-	60117	1.5E-01
Dimethyl phthalate	131113	2.3E+03
Dimethylamine	124403	3.8+02
Dinitrotoluene, 2,4-	121142	2.1E+00
Dioctyl phthalate	117840	2.3E+03
Dioxane, 1,4-	123911	2.5E+01
Epichlorohydrin	106898	8.3E+00
Ethyl acetate	141786	6.6E+05
Ethyl acrylate	140885	9.3E+03
Ethyl chloride	75003	1.9E+06
Ethylene dibromide (1,2-dibromoethane)	106934	2.7E+00
Ethylene dichloride (1,2-dichloroethane)	107062	8.7E+00
Ethylene oxide	75218	2.1E+00
Ethylene thiourea	96457	1.5E+01
Formaldehyde	50000	3.3E+01
Freons (see Chlorofluorocarbons)		
Glutaraldehyde	111308	3.3E+02
Glycol ethers:		
2-Ethoxy ethanol (cellosolve; ethylene glycol monoethyl ether)	110805	3.9E+04
2-Ethoxyethyl acetate (cellosolve acetate; ethylene glycol monoethyl ether acetate)	111159	1.3E+04
2-Methoxy ethanol (methyl cellosolve; ethylene glycol monomethyl ether)	109864	3.9E+03
2-Methoxyethyl acetate (methyl cellosolve acetate; ethylene glycol monomethyl ether acetate)	110496	1.1E+04
2-Butoxy ethanol (Butyl cellosolve; ethylene glycol monobutyl ether)	111762	3.9E+03
Hexachlorobenzene	118741	3.9E-01
Hexachlorocyclohexanes	58899*	1.8E-01
Hexachlorocyclopentadiene	77474	4.6E+01
Hexane, n-	110543	8.3E+04
Hydrazine	302012	3.9E-02
Hydrogen bromide (hydrobromic acid)	10035106	4.6E+03
Hydrogen chloride	7647010	1.4E+03
Hydrogen cyanide	74908	1.4E+04
Hydrogen fluoride	7664393	1.1E+03
Hydrogen sulfide	7783064	8.1E+03
Isocyanates:		
Methylene-bis-phenyl isocyanate	101688	1.8E+01
Methyl isocyanate	624839	7.0E+01
Toluene diisocyanates	26471625*	1.8E+01
Isophorone	78591	6.6E+04
Isopropyl alcohol	67630	4.4E+05
Lead, inorganic, and lead compounds	7439921*	1.60E+01
Maleic anhydride	108316	4.6E+02
Manganese and manganese compounds	7439965*	7.7E+01
Mercury and mercury compounds (inorganic)	7439976*	5.8E+01

PERMIT HANDBOOK

<b>Compound</b>	<b>CAS Number</b>	<b>Trigger Level (lb/year)</b>
Methyl alcohol (methanol)	67561	1.2E+05
Methyl bromide	74839	1.2E+03
Methyl chloroform (1,1,1-TCA)	71556	6.2E+04
Methyl mercury	593748	1.9E+02
Methyl methacrylate	80626	1.9E+05
Methylene bis(2-chloroaniline), 4,4'-	101144	4.4E-01
Methylene chloride	75092	1.9E+02
Methylene dianiline, 4,4'-	101779*	4.2E-01
Methylethylketone (MEK)	78933	1.5E+05
Methylpyrrolidone, N-	872504	1.8E+05
Michler's ketone	90948	7.7E-01
Naphthalene	91203	2.7E+02
Nickel and nickel compounds	7440020*	7.3E-01
Nitric acid	7697372	2.3E+03
Nitrobenzene	98953	3.3E+02
Nitropropane, 2-	79469	3.9E+03
Nitrosodiethylamine, N-	55185	1.9E-02
Nitrosodimethylamine, N-	62759	4.2E-02
Nitroso-n-dibutylamine, N-	924163	1.6E-03
Nitrosodiphenylamine, N-	86306	7.3E+01
Nitrosodiphenylamine, p-	156105	3.1E+01
Nitroso-N-methylethylamine, N-	10595956	3.1E-02
Nitroso-morpholine, N-	59892	1.0E-01
Nitroso-piperidine, N-	100754	7.1E-02
Nitrosodi-n-propylamine, N-	621647	9.7E-02
Nitrosopyrrolidine, N-	930552	3.3E-01
PAHs (including but not limited to):	*	
Benz[a]anthracene	56553	4.4E-02
Benzo[b]fluoroanthene	205992	4.4E-02
Benzo[k]fluoroanthene	205823	4.4E-02
Benzo[a]pyrene	50328	4.4E-02
Dibenz[a,h]anthracene	53703	4.4E-02
Indeno[1,2,3-cd]pyrene	193395	4.4E-02
PCBs (polychlorinated biphenyls)	1336363*	6.8E-03
Pentachlorophenol	87865	3.8E+01
Perchloroethylene (tetrachloroethylene)	127184	3.3E+01
Phenol	108952	8.7E+03
Phosgene	75445	1.8E+02
Phosphine	7803512	1.9E+03
Phosphoric acid	7664382	4.6E+02
Phosphorus (white)	7723140	1.4E+01
Phthalic anhydride	85449	1.4E+06
Potassium bromate	7758012	1.4E+00
Propane sultone, 1,3-	1120714	2.7E-01
Propylene oxide	75569	5.2E+01
Selenium and selenium compounds	7782492*	9.7E+01
Sodium hydroxide	1310732	9.3E+02
Styrene monomer	100425	1.4E+05
Tetrachloroethane, 1,1,2,2-	79345	3.3E+00
Tetrachlorophenols	25167833*	1.7E+04

<b>Compound</b>	<b>CAS Number</b>	<b>Trigger Level (lb/year)</b>
Tetrahydrofuran	109999	2.7E+05
Thioacetamide	62555	1.1E-01
Toluene	108883	3.9E+04
Toluene diisocyanate, 2,4-	584849	1.8E+01
Toluene diisocyanate, 2,6-	91087	1.8E+01
Trichlorobenzene, 1,2,4-	120821	1.8E+04
Trichloroethane, 1,1,1- (see Methyl chloroform)		
Trichloroethane, 1,1,2- (vinyl trichloride)	79005	1.2E+01
Trichloroethylene	79016	9.7E+01
Trichlorophenol, 2,4,6-	88062	9.7E+00
Urethane (ethyl carbamate)	51796	6.6E-01
Vapam (sodium methyldithiocarbamate)	137428	2.2E+04
Vinyl chloride	75014	2.5E+00
Vinylidene chloride	75354	6.2E+03
Xylenes	1330207*	5.8E+04
Zinc and zinc compounds	7440666*	6.8E+03

\* -- This is a chemical compound group. If a CAS number is listed, it represents only a single chemical within the chemical class (for metallic compounds, the CAS number of the elemental form is listed; for other compounds, the CAS number of a predominant compound in the group is given).

n/a --No CAS number is available for this compound or compound group.

(Amended 5/17/00; 11/15/00)