

## PART 226

## SOLVENT METAL CLEANING PROCESSES

(Statutory authority: Environmental Conservation Law, §§ 1-0101, 3-0301, 19-0103, 19-0105, 19-0301, 19-0303, 19-0305)

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**Historical Note**

Part filed April 28, 1972; repealed, new (§§ 226.1-226.5) filed May 17, 1972; repealed, filed Aug. 27, 1974; new (§§ 226.1-226.7) filed July 24, 1979 eff. 30 days after filing.

**§ 226.1 Definitions.**

(a) To the extent that they are not inconsistent with the specific definitions in subdivision (b) of this section, the general definitions of Part 200 of this Title apply.

(b) For the purposes of this Part, the following specific definitions apply:

(1) *Cold cleaning degreasing*. Batch process of solvent metal cleaning, with liquid solvent, by spraying, brushing, flushing or immersion while maintaining the solvent below its boiling point. Wipe cleaning is not included in this definition.

(2) *Conveyorized degreasing*. Continuous process of solvent metal cleaning by operating with either cold or vaporized solvents.

(3) *Degreaser*. Any solvent metal cleaning machine used to perform cold cleaning degreasing, remote reservoir degreasing, conveyorized degreasing, or open-top vapor degreasing.

(4) *Freeboard height*. Distance from the top of the vapor zone to the top of the degreaser tank. On cold cleaners, it is the distance from liquid level to lip of tank.

(5) *Freeboard ratio*. Freeboard height divided by the interior width of the degreaser tank.

(6) *Open-top vapor degreasing*. Process of solvent metal cleaning by condensing hot solvent vapor on the colder metal parts.

(7) *Remote reservoir degreasing*. Cold cleaning degreasing performed in a device in which liquid solvent is pumped to a sink-like work area, where the metal parts are cleaned, and then drains back into an enclosed container allowing no solvent to pool in the work area.

(8) *Solvent metal cleaning*. Process of cleaning soils from metal surfaces by using a volatile organic compound (VOC).

(9) *Special and extreme solvent metal cleaning*. The use of degreasers:

(i) to clean metal parts in the manufacturing and rework of electronic parts, assemblies, boxes, wiring harnesses, sensors and connectors used in aerospace service;

(ii) to clean metal parts used in the manufacturing of ozone, nitrous oxide, fluorine, chlorine, bromine, halogenated compounds, or oxygen in concentrations greater than 23 percent; or

(iii) to clean metal parts exposed to ozone, nitrous oxide, fluorine, chlorine, bromine, halogenated compounds, or oxygen in concentrations greater than 23 percent.

**Historical Note**

Sec. filed April 28, 1972; repealed, new filed May 17, 1972; renum. 226.2, new filed Jan. 15, 1973; repealed, filed Aug. 27, 1974; new filed July 24, 1979; amd. filed April 7, 2003 eff. 30 days after filing.

**§ 226.2 General requirements.**

A person conducting solvent metal cleaning must:

- (a) store solvent in covered containers and transfer or dispose of waste solvent in such a manner that less than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere;
- (b) maintain equipment to minimize leaks and fugitive emissions;
- (c) display at the equipment location a conspicuous summary of proper operating procedures consistent with minimizing emissions of VOCs;
- (d) keep the degreaser cover closed except when parts are being placed into or being removed from the degreaser, the cover needs to be open in order to add or remove solvent from the degreaser, no solvent is in the degreaser, or manually cleaning metal parts in a cold cleaning degreaser;
- (e) create and retain a record of solvent consumption for five years. This record must be made available to the department upon request.
- (f) not clean sponges, fabric, wood, leather, paper products and other absorbent materials in a degreaser; and
- (g) if using a cold cleaning degreaser that is subject to section 226.3(a)(4) of this Part, retain a record of the following three items for five years and provide these records to the department upon request. An invoice, a bill of sale, a certificate covering multiple sales, a material safety data sheet (MSDS), or other appropriate documentation acceptable to the department may be used to comply with this requirement:
  - (1) the name and address of the solvent supplier;
  - (2) the type of solvent including the product or vendor identification number; and
  - (3) the vapor pressure of the solvent measured in mm Hg at 20°C (68°F).

**Historical Note**

Sec. filed April 28, 1972; repealed, new filed May 17, 1972; repealed, new added by renum. and amd. 226.1, filed Jan. 15, 1973; repealed, filed Aug. 27, 1974; new filed July 24, 1979; amd. filed April 7, 2003 eff. 30 days after filing.

**§ 226.3 Equipment specifications.**

Except as otherwise permitted by the department pursuant to section 226.5 of this Part, the following types of control equipment must be used by a person conducting solvent metal cleaning:

- (a) *Cold cleaning degreasing when the internal volume of the machine is greater than two gallons.*
  - (1) A cover which can be operated easily.
  - (2) An internal drainage facility (under cover), if practical.
  - (3) A control system that limits VOC emissions to those achievable with equipment having a freeboard ratio greater than or equal to 0.5, or a water cover when the solvent is insoluble in and heavier than water. Remote reservoir degreasers are exempt from this requirement.
  - (4) Solvent with a vapor pressure of 1.0 mm Hg, or less, at 20°C. Prior to January 1, 2004, compliance with this requirement is not mandatory if compliant solvents are not readily available. On or after January 1, 2004, the person conducting solvent metal cleaning covered by this subdivision must use compliant solvents or have submitted a process specific RACT demonstration pursuant to section 226.5 of this Part. This paragraph does not apply to degreasers:

- (i) used in special and extreme solvent metal cleaning;
  - (ii) for which the owner or operator has received department approval of a demonstration that compliance with the requirement of a solvent with a vapor pressure of 1.0 mm Hg, or less, at 20°C will result in unsafe operating conditions; or
  - (iii) that are located in a permanent total enclosure having control equipment that is designed and operated with an overall VOC removal efficiency of 90 percent or greater.
- (b) *Open-top vapor degreasing.*
- (1) A cover which can be operated easily without disturbing the vapor zone.
  - (2) Safety switches which shut off the sump heat if the condenser malfunctions and shall shut off the pump if the vapor level drops excessively.
  - (3) One of the following:
    - (i) a freeboard ratio that is greater than or equal to 0.75, and a powered or mechanically assisted cover if the top opening is greater than 10 square feet;
    - (ii) a refrigerated chiller; or
    - (iii) local exhaust ventilation and a carbon adsorption unit, or an equivalent system, for collection of VOCs.
- (c) *Conveyorized degreasing.*
- (1) One of the following:
    - (i) a refrigerated chiller; or
    - (ii) local exhaust ventilation and a carbon adsorption unit, or an equivalent system, for collection of VOCs.
  - (2) A drying tunnel, rotating basket or other device acceptable to the department which prevents carry-out of VOCs.
  - (3) Safety switches which shut off the system when the degreaser malfunctions.
  - (4) Minimize openings at the entrance and exit of the degreaser.

#### Historical Note

Sec. filed April 28, 1972; repealed, new filed May 17, 1972; amd. filed Jan. 15, 1973; repealed, filed Aug. 27, 1974; new filed July 24, 1979; amd. filed April 7, 2003 eff. 30 days after filing.

### § 226.4 Operating requirements.

Except as otherwise allowed by the department pursuant to section 226.5 of this Part, the following operating practices are required by a person conducting solvent metal cleaning:

- (a) *Cold cleaning degreasing.* Clean parts shall be drained at least 15 seconds or until dripping ceases.
- (b) *Open-top vapor degreasing.*
  - (1) Minimize solvent carry-out by the following measures:
    - (i) rack parts to allow full drainage;
    - (ii) move parts in and out of degreaser tank at less than 11 ft/min;
    - (iii) degrease the work load in the vapor zone at least 30 seconds or until condensation ceases;
    - (iv) tip out any pools of solvent before removal; and
    - (v) dry parts for at least 15 seconds before removal.
  - (2) Work loads shall not occupy more than half the open-top area of the degreaser tank.
  - (3) Spray only below the vapor level.

(c) *Conveyorized degreasing.* (1) Exhaust ventilation rate shall not exceed 125 percent of the minimum ventilation rate required for the protection of workers in the vicinity of the degreaser.

(2) Minimize carry-out emissions by:

- (i) proper racking for best drainage; and
- (ii) maintaining a conveyor speed at less than 11 ft/min.

(3) Water must not be visibly detectable in the solvent leaving the water separator.

#### Historical Note

Sec. filed April 28, 1972; repealed, new filed May 17, 1972; amd. filed Jan. 15, 1973; repealed, filed Aug. 27, 1974; new filed July 24, 1979; amd. filed April 7, 2003 eff. 30 days after filing.

### § 226.5 Reasonably available control technology.

Where it can be demonstrated that a solvent metal cleaning process cannot be controlled to comply with sections 226.2, 226.3 and 226.4 of this Part for reasons of technological and economic infeasibility, the Department may accept a lesser degree of control upon submission of satisfactory evidence that the person engaging in solvent metal cleaning is applying reasonably available control technology (RACT) and has a plan to develop the technologies necessary to comply with the aforementioned sections. Process specific RACT demonstrations shall be submitted with the application for a Title V facility permit or a State facility permit for an existing source under the provisions of Part 201 of this Title. Such process specific RACT demonstrations must be submitted to the United States Environmental Protection Agency for approval as a revision to the State Implementation Plan.

#### Historical Note

Sec. filed April 28, 1972; repealed, new filed May 17, 1972; amd. filed Jan. 15, 1973; repealed, filed Aug. 27, 1974; new filed July 24, 1979; amd. filed April 7, 2003 eff. 30 days after filing.

### § 226.6 Exemptions.

(a) This Part shall not apply to:

- (1) conveyorized degreasers with an air/vapor interface smaller than 22 square feet (2.0 m<sup>2</sup>);
- (2) open-top vapor degreasers with an open-top area smaller than 11 square feet (1.0 m<sup>2</sup>);
- (3) conveyorized and open-top vapor degreasers subject to the requirements in 40 CFR 63, subpart T; and
- (4) cold cleaning degreasers that use a solvent with a VOC content of five percent or less by weight.

#### Historical Note

Sec. filed July 24, 1979; repealed, new added by renum. and amd. 226.7 filed April 7, 2003 eff. 30 days after filing.

### § 226.7

#### Historical Note

Sec. filed July 24, 1979; renum. 226.6 filed April 7, 2003 eff. 30 days after filing.