

~~IX.N.4.a. Substitute water-based sprays for the normal solvent-based mold release compound; or,~~

~~IX.N.4.a.(i) Install a capture system designed and operated in a manner that will capture and transfer at least 90.0 percent of the VOC emitted by the green tire spraying operation to a control device; and,~~

~~IX.N.4.a.(ii) In addition to Part (i), install and operate a control device that meets the requirements of one of the following:~~

~~IX.N.4.a.(ii)(A) a carbon adsorption system designed and operated in a manner such that there is at least 95.0 percent removal of VOC by weight from the gases ducted to the control device; or,~~

~~IX.N.4.a.(ii)(B) an incineration system that oxidizes at least 90 percent of the nonmethane volatile organic compounds (VOC measured as total combustible carbon) to carbon dioxide and water.~~

IX.N.5. Testing of capture system efficiency shall meet the requirements of Subsection IX.A.5.e.

IX.N.6. Control devices shall meet the applicable requirements, including recordkeeping, of Subsections IX.A.3.a, b, c, and e, and IX.A.8.a and b.

IX.N.7. The applicable EPA reference methods 1 through 4, and 25, of 40 CFR Part 60, shall be used to determine the efficiency of control devices.

X. Use of Solvents for Degreasing and Cleaning

X.A. General Provisions

X.A.1. Applicability

The provisions of this section apply to cold cleaners, non-conveyorized vapor degreasers, and conveyorized degreasers. Open top vapor degreasers are a subset of non-conveyorized vapor degreasers. The owner or operator of a unit subject to this section shall ensure that no such unit is used unless the requirements of this section are satisfied.

X.A.2. Definitions

X.A.2.a. "Cold-Cleaner" means a container of non-aqueous liquid solvent held below its boiling point, which is designed, used, or intended for cleaning solid objects in a batch-loaded process. A "cold-cleaner" may have provisions for heating the solvent. It does not include vapor degreasers or continuously loaded conveyorized degreasers.

X.A.2.b. "Conveyorized Degreaser" means an apparatus that performs degreasing or other cleaning functions through the use of non-aqueous liquid solvent and/or solvent vapors within a container, and which has a conveyor mechanism allowing continuous loading of items conveyed into and out of the solvent.

X.A.2.c. "Freeboard" in a vapor degreaser means the vertical distance from the top of the vapor zone (as established by normal operations within the specifications of the degreaser manufacturer) to the top of the degreaser.

For cold-cleaners "freeboard" means the vertical distance from the surface of the solvent liquid to the top of the degreaser.

If all sides are not even, the vertical distance to the top of the lowest side shall be used to make the determination of freeboard.

X.A.2.d. "Freeboard Ratio" means the ratio of the freeboard to the width of the solvent surface.

X.A.2.e. "Non-Conveyorized Vapor Degreaser" means an apparatus, which uses non-aqueous solvent vapors within some type of container to degrease or otherwise clean solid objects in a batch-loaded process. It excludes continuously loaded conveyorized degreasers.

X.A.2.f. "Solvent Metal Cleaning" means the process of cleaning soils from metal surfaces by cold cleaning, conveyorized degreasing, or non-conveyorized vapor degreasing.

X.A.3. Transfer of waste solvent and used solvent

In any disposal or transfer of waste or used solvent, at least 80 percent by weight of the solvent/waste liquid shall be retained (i.e., no more than 20 percent of the liquid solvent/solute mixture shall evaporate or otherwise be lost during transfers).

X.A.4. Storage of waste solvent and used solvent

Waste or used solvent shall be stored in closed containers unless otherwise required by law.

X.A.5. Any control device shall meet the applicable requirements of Subsections IX.A.3.a, b, c, e and IX.A.8.a. and b.

X.B. Control of Solvent Cold-Cleaners

X.B.1. Control Equipment

X.B.1.a. Covers

X.B.1.a.(i) All cold-cleaners shall have a properly fitting cover.

X.B.1.a.(ii) Covers shall be designed to be easily operable with one hand under any of the following conditions:

X.B.1.a.(ii)(A) Solvent true vapor pressure is greater than 15 torr (0.3 psia) at 38°C (100°F).

X.B.1.a.(ii)(B) The solvent is agitated by an agitating mechanism.

X.B.1.a.(ii)(C) The solvent is heated.

X.B.1.b. Drainage Facility

X.B.1.b.(i) All cold-cleaners shall have a drainage facility that captures the drained liquid solvent from the cleaned parts

X.B.1.b.(ii) For cold-cleaners using solvent which has a vapor pressure greater than 32 torr (0.62 psia) measured at 38°C (100°F) either:

X.B.1.b.(ii)(A) There shall be an internal drainage facility within the confines of the cold-cleaner, so that parts are enclosed under the (closed) cover to drain after cleaning, or if such a facility will not fit within;

X.B.1.b.(ii)(B) An enclosed, external drainage facility that captures the drained solvent liquid from the cleaned parts.

X.B.1.c. A permanent, clearly visible sign shall be mounted on or next to the cold-cleaner. The sign shall list the operating requirements.

X.B.1.d. Solvent spray apparatus shall not have a splashing, fine atomizing, or shower type action but rather should produce a solid, cohesive stream. Solvent spray shall be used at a pressure that does not cause excessive splashing.

For solvents with a true vapor pressure above 32 torr (0.62 psia) at 38°C (100°F), or, for solvents heated above 50°C (120°F), one of the following techniques shall be used:

X.B.1.d.(i) A freeboard ratio greater than or equal to 0.7.

X.B.1.d.(ii) A water or a non-volatile liquid cover. The cover liquid shall not be soluble in the solvent and shall not be more dense than the solvent and the depth of the cover liquid shall be sufficient to prevent the escape of solvent vapors.

X.B.2. Operating requirements

X.B.2.a. The cold-cleaner cover shall be closed whenever parts are not being handled within the cleaner confines.

X.B.2.b. Cleaned parts shall be drained for at least 15 seconds and/or until dripping ceases. Any pools of solvent shall be tipped out on the clean part back into the tank.

X.C. Control of Non-Conveyorized Vapor Degreasers

X.C.1. Control Equipment

X.C.1.a. The non-conveyorized vapor degreaser shall have a cover which shall be designed and operated so that it can be easily opened and closed through the use of mechanical assists such as spring loading, counterweights, etc.; opening and closing the cover shall not disturb the vapor zone.

X.C.1.b. Safety Switches

The following two types of switches shall be installed on vapor degreasers:

- X.C.1.b.(i) Condenser flow switch and thermostat - (shuts off sump heat if the condenser coolant is either not circulating or is too warm); and
- X.C.1.b.(ii) Spray safety switch - (shuts off spray pump if the vapor level drops more than four (4) inches).

X.C.1.c. Control Device

X.C.1.c.(i) For non-conveyorized vapor degreasers with an open area (with the cover open) of one square meter (10.8 ft²) or less, either the freeboard ratio shall be greater than or equal to 0.75, or one of the control devices in (ii) below shall be used.

X.C.1.c.(ii) For non-conveyorized vapor degreasers with an open area (with the cover open) greater than one (1) square meter, (10.8 ft²), at least one of the following control systems shall be used:

X.C.1.c.(ii)(A) Both a powered cover and a freeboard ratio greater than or equal to 0.75.

X.C.1.c.(ii)(B) A refrigerated chiller with a cooling capacity equivalent to or greater than the applicable specifications in Appendix C.

X.C.1.c.(ii)(C) An enclosed design: A system where the cover(s) or door(s) opens only when a dry part is entering or exiting the degreaser.

X.C.1.c.(ii)(D) A carbon adsorption system with ventilation greater than or equal to 15 cubic meters each minute per square meter (50 cfm/ft²) of air/vapor area (when the cover(s) is [are] open), exhausting less than 25 parts per million (by volume) of solvent averaged over one complete adsorption cycle.

X.C.1.d. A permanent, clearly visible sign shall be mounted on or next to the degreaser. The sign shall list the operating requirements.

X.C.2. Operating Requirements

X.C.2.a. Keep cover closed at all times except when processing work loads into or out of the degreaser.

X.C.2.b. The following operations shall be performed to minimize solvent carry-out:

X.C.2.b.(i) Rack parts to allow full drainage.

X.C.2.b.(ii) Move parts as slowly as is practicable in and out of the degreaser. A maximum of one foot every five seconds by hand or a

maximum of 5.5 cm/sec. (10.8ft/min) for a mechanically operated system.

X.C.2.b.(iii) Allow the workload to clean in the vapor zone at least 30 seconds or until condensation ceases.

X.C.2.b.(iv) Tip out any pools of solvent that remain on the cleaned parts before removal from the vapor zone.

X.C.2.b.(v) Allow parts to dry within the degreaser at least 15 seconds and/or until visually dry.

X.C.2.c. Solvents shall not be used to clean porous or absorbent materials, for example, cloth, leather, wood, rope, etc.

X.C.2.d. Work loads shall not occupy more than half of the degreaser's open top area.

X.C.2.e. Spraying shall not be done above the vapor level.

X.C.2.f. Solvent leaks shall be repaired immediately, or the degreaser shall be shut down.

X.C.2.g. Exhaust ventilation shall not exceed twenty (20) cubic meters per minute per square meter (65.6 cfm per sq. ft.) of degreaser open area, unless greater exhaust rates are necessary to meet Occupational and Safety Health Act requirements. Ventilation fans shall not be used near the degreaser opening, unless necessary to meet Occupational and Safety Health Act requirements.

X.C.2.h. The water separator shall function so that no visible water is present in the solvent exiting the separator.

X.D. Control of Conveyorized Degreasers

X.D.1. Control Equipment

X.D.1.a. Control Device

For all conveyorized degreasers with a solvent surface area greater than two (2) square meters (21.5 square feet), the degreasing shall be controlled by at least one of the following:

X.D.1.a.(i) Carbon adsorption system, with ventilation greater or equal to 15 cubic meters per minute per square meter (49.2 cfm ft₂) of air/vapor interface for vapor degreasers (of air/liquid interface for non-vapor types) when down-time covers are open, and exhausting less than 25 parts per million of solvent (by volume) averaged over a complete adsorption cycle.

X.D.1.a.(ii) For vapor degreasers only: a refrigerated chiller with a cooling capacity equivalent to or greater than the applicable specifications in Appendix D.

X.D.1.b. Prevention of Carry-out

A drying tunnel, tumbling basket(s), or other demonstrably effective method(s) shall be employed to prevent cleaned parts from carrying out solvent liquid or vapor.

X.D.1.c. Safety Switches

X.D.1.c.(i) The following two (2) switch-circuits (or equivalent) shall be installed.

X.D.1.c.(i)(A) A spray safety switch shall shut off the spray pump and/or the conveyor if the vapor level drops more than four (4) inches.

X.D.1.c.(i)(B) A vapor level control thermostat shall shut off sump heat when the vapor level rises too high.

X.D.1.c.(ii) All conveyorized degreasers shall have a condenser thermostat and flow-detector switch (or equivalent) which shuts off sump heat if coolant is too warm or is not circulating.

X.D.1.d. Minimized Openings: Degreaser entrance and exit openings shall silhouette work loads so that the average clearance between parts (or parts and the edge of the degreaser opening) is either:

X.D.1.d.(i) less than 10 centimeters (4 inches) or;

X.D.1.d.(ii) less than 10 percent of the width of the opening

X.D.1.e. Covers shall be provided to close off all the entrance(s) and exit(s) when the conveyor is not in use.

X.D.1.f. A permanent, clearly visible sign shall be mounted on or next to the degreaser. The sign shall list the operating requirements.

X.D.2. Operating Requirements

X.D.2.a. Exhaust ventilation shall not exceed 20 m³/minute per square meter of degreaser opening (65.6 cf/m per square foot), unless necessary to meet OSHA requirements. Work place fans shall not be located near, nor directed at degreaser openings, unless necessary to meet OSHA requirements. Exhaust flow shall be measured by EPA reference methods 1 and 2 of 40 CFR Part 60.

X.D.2.b. Carry-out emissions shall be minimized by:

X.D.2.b.(i) Racking parts in such a manner to achieve best drainage.

X.D.2.b.(ii) Maintaining the vertical component of conveyor speed at less than 3.3 meters per minute (10.8 feet per minute).

X.D.2.c. Repair solvent leaks immediately, or shut down the degreaser.

X.D.2.d. The water separator shall function with an efficiency sufficient to prevent water from being visible in the solvent exiting the separator.

X.D.2.e. Down-time cover(s) shall be placed over entrances and exits of conveyORIZED degreasers immediately after the conveyor and exhaust are shut down. Covers shall be retained in position until immediately before start-up.

XI. Use of Cutback Asphalt

XI.A. Definitions

XI.A.1. "Asphalt or Asphalt Cement" The dark-brown to black cementitious material (solid, semi-solid, or liquid in consistency) of which the main constituents are bitumens which occur naturally or as a residue of petroleum refining.

XI.A.2. "Asphalt Concrete" A waterproof and durable paving material composed of dried aggregate, which is evenly coated with hot asphalt cement.

XI.A.3. "Cutback Asphalt or Cutback Asphalt Cement" Any asphalt which has been liquified by blending with a VOC, such as a petroleum solvent diluent or, in the case of some slow cure asphalts (Road Oils), which has been produced directly from the distillation of petroleum.

XI.A.4. "Emulsified Asphalt" Asphalt emulsions produced by combining asphalt and water with emulsifying agent.

Emulsified Asphalt or any other coating or sealant, including but not limited to those produced from petroleum or coal, which contain more than five (5) percent of oil distillate as determined by ASTM Method D-244 is included in this definition.

XI.A.5. "Penetrating Prime Coat" An application of low-viscosity liquid asphalt to an absorbent surface in order to prepare it for overlaying with a layer or layers of asphalt cement or asphalt emulsion and mineral aggregate paving materials.

XI.B. Limitations

XI.B.1. Applicability

The provisions of this Section XI. apply to the use and storage of cutback asphalt for the paving and maintenance of all public roadways (including alleys), private roadways, parking lots, and driveways only within ozone nonattainment areas.

XI.B.2. Storage

Stockpiles of aggregate mixed with cutback asphalt are permitted October 1 through February 28 (29). Such storage is not permitted March 1 through September 30 except where it can be demonstrated to the Division that such storage is necessary.

XI.B.3. Use

Cutback asphalt may be used for any paving purpose October 1 through February 28 (29). No person shall use cutback asphalt or any coating included in the definition of cutback asphalt in Subsection IX.A.3. March 1 through September 30 except as provided below.

XI.B.3.a. if used solely as a penetrating prime coat, or