

ARTICLE 8. VOLATILE ORGANIC COMPOUND RULES

Rule 3. Organic Solvent Degreasing Operations

326 IAC 8-3-1 Applicability and exemptions

Authority: IC 13-14-8; IC 13-17

Affected: IC 13-17-3

Sec. 1. (a) This rule applies to the following:

- (1) Persons owning or operating degreasers using solvents that contain one (1) or more volatile organic compounds (VOC).
- (2) Any person who sells, offers for sale, uses, or manufactures solvent that contains one (1) or more VOC for use in cold cleaner degreasers.

(b) For purposes of this section, "electronic components" means all components of an electronic assembly, including, but not limited to, the following:

- (1) Circuit board assemblies.
- (2) Printed wire assemblies.
- (3) Printed circuit boards.
- (4) Soldered joints.
- (5) Ground wires.
- (6) Bus bars.
- (7) Any other associated electronic component manufacturing equipment.

(c) Unless exempted in subsection (d), this rule applies to persons owning or operating degreasers as follows:

(1) Sections 2(a), 3(a), and 4(a) of this rule apply to the following degreasers:

(A) Degreasers constructed on or before January 1, 1980, that are located:

- (i) in Clark, Elkhart, Floyd, Lake, Marion, Porter, or St. Joseph County; and
- (ii) at sources that have potential emissions of ninety and seven-tenths (90.7) megagrams (one hundred (100) tons) or greater per year of VOC.

(B) Degreasers constructed after January 1, 1980, located anywhere in the state.

(2) Sections 2 through 4 of this rule apply to the following degreasers:

(A) Cold cleaner degreasers without remote solvent reservoirs that:

- (i) are located in Clark, Elkhart, Floyd, Lake, Marion, Porter, or St. Joseph County; or
- (ii) were constructed after July 1, 1990, and located anywhere in the state.

(B) Open top vapor degreasers with an air-to-solvent interface of one (1) square meter (ten and eight-tenths (10.8) square feet) or greater that:

- (i) are located in Clark, Elkhart, Floyd, Lake, Marion, Porter, or St. Joseph County; or
- (ii) were constructed after July 1, 1990, and located anywhere in the state.

(C) Conveyorized degreasers with an air-to-solvent interface of two (2) square meters (twenty-one and six-tenths (21.6) square feet) or greater that:

- (i) are located in Clark, Elkhart, Floyd, Lake, Marion, Porter, or St. Joseph County; or
- (ii) were constructed after July 1, 1990, and located anywhere in the state.

(3) Section 8 of this rule applies to any person who sells, offers for sale, uses, or manufactures solvent for use in cold cleaner degreasers as follows:

(A) Before January 1, 2015, in the following counties:

- (i) Clark.
- (ii) Floyd.
- (iii) Lake.
- (iv) Porter.

(B) On and after January 1, 2015, anywhere in the state.

(d) The following degreasers and solvent material uses are exempted from this rule:

(1) Sections 2 through 4 of this rule do not apply to the following solvent degreasing operations:

(A) Degreasers that are required to comply with and are operated in compliance with 326 IAC 20-6-1 that incorporates by reference 40 CFR 63, Subpart T*, National Emissions Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning.

(B) Degreasers that use solvents that contain less than one percent (1%) of VOC by weight.

(2) Section 8 of this rule does not apply to the following:

(A) Solvents intended to be used in degreasers to clean electronic components.

(B) Solvents used in degreasers that are:

- (i) required to comply with and are operated in compliance with the requirements of 326 IAC 20-15-1, which incorporates by reference 40 CFR 63, Subpart GG*, National Emission Standards for Aerospace Manufacturing and Rework Facilities; and

(ii) not located in Clark, Floyd, Lake, or Porter County.

(C) Solvents containing less than one percent (1%) VOC by weight used in degreasers that are not located in Clark, Floyd, Lake, or Porter County.

(e) When a limit is expressed in metric units and the English units are provided, the owner or operator has the option of using either metric or English units to demonstrate compliance with the rule.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 8-3-1; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; filed Apr 18, 1990, 4:55 p.m.: 13 IR 1679; filed Apr 27, 1999, 9:06 a.m.: 22 IR 2854; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed Jan 30, 2013, 12:33 p.m.: 20130227-IR-326070352FRA*)

326 IAC 8-3-2 Cold cleaner degreaser control equipment and operating requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-3-12

Affected: IC 13-17-3

Sec. 2. (a) The owner or operator of a cold cleaner degreaser shall ensure the following control equipment and operating requirements are met:

- (1) Equip the degreaser with a cover.
- (2) Equip the degreaser with a device for draining cleaned parts.
- (3) Close the degreaser cover whenever parts are not being handled in the degreaser.
- (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.
- (5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).
- (6) Store waste solvent only in closed containers.
- (7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) The owner or operator of a cold cleaner degreaser subject to this subsection shall ensure the following additional control equipment and operating requirements are met:

- (1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) A refrigerated chiller.
 - (D) Carbon adsorption.
 - (E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
- (2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
- (3) If used, solvent spray:
 - (A) must be a solid, fluid stream; and
 - (B) shall be applied at a pressure that does not cause excessive splashing.

(*Air Pollution Control Division; 326 IAC 8-3-2; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed Jan 30, 2013, 12:33 p.m.: 20130227-IR-326070352FRA*)

326 IAC 8-3-3 Open top vapor degreaser operation

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-3-12

Affected: IC 13-17-3

Sec. 3. (a) The owner or operator of an open top vapor degreaser shall ensure the following control equipment and operating requirements are met:

- (1) Equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.
- (2) Keep the cover closed at all times except when processing workloads through the degreaser.
- (3) Minimize solvent carryout by:
 - (A) racking parts to allow complete drainage;
 - (B) moving parts in and out of the degreaser at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute);
 - (C) degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
 - (D) tipping out any pools of solvent on the cleaned parts before removal; and
 - (E) allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry.

- (4) Prohibit the entrance into the degreaser of porous or absorbent materials, such as cloth, leather, wood, or rope.
- (5) Prohibit occupation of more than one-half (1/2) of the degreaser's open top area with the workload.
- (6) Prohibit the loading of the degreaser in a manner that causes the vapor level to drop more than fifty percent (50%) of the vapor depth when the workload is removed.
- (7) Prohibit solvent spraying above the vapor level.
- (8) Repair solvent leaks immediately, or shut down the degreaser if leaks cannot be repaired immediately.
- (9) Store waste solvent only in closed containers.
- (10) Prohibit the disposal or transfer of waste solvent in a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.
- (11) Prohibit the use of workplace fans near the degreaser opening.
- (12) Prohibit visually detectable water in the solvent exiting the water separator.
- (13) Provide the degreaser with a permanent, conspicuous label that lists the operating requirements in subdivisions (2) through (12).

(b) The owner or operator of an open top vapor degreaser subject to this subsection shall ensure the following additional control equipment and operating requirements are met:

- (1) Equip the degreaser with the following switches:
 - (A) A condenser flow switch and thermostat that shuts off sump heat if condenser coolant stops circulating or becomes too warm.
 - (B) A spray safety switch that shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).
- (2) Equip the degreaser with one (1) of the following control devices:
 - (A) A freeboard ratio of seventy-five hundredths (0.75) or greater and a powered cover if the degreaser opening is greater than one (1) square meter (ten and eight-tenths (10.8) square feet).
 - (B) A refrigerated chiller.
 - (C) An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser.
 - (D) A carbon adsorption system with ventilation that, with the cover open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air-to-vapor interface area and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.
 - (E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
- (3) Prohibit the loading of the degreaser to the point where the vapor level would drop more than ten (10) centimeters (four (4) inches) when the workload is removed.
- (4) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.
- (5) Ensure that the label required under subsection (a)(13) includes the additional operating requirements listed in subdivisions (3) and (4).

(Air Pollution Control Division; 326 IAC 8-3-3; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed Jan 30, 2013, 12:33 p.m.: 20130227-IR-326070352FRA)

326 IAC 8-3-4 Conveyorized degreaser control equipment and operating requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-3-12

Affected: IC 13-17-3

Sec. 4. (a) The owner or operator of a conveyorized degreaser shall ensure the following control equipment and operating requirements have been met:

- (1) Minimize carryout emissions by:
 - (A) racking parts for optimal drainage; and
 - (B) maintaining the vertical conveyor speed at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute).
- (2) Store waste solvent only in closed containers.
- (3) Prohibit the disposal or transfer of waste solvent in a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.
- (4) Repair solvent leaks immediately, or shut down the degreaser if leaks cannot be repaired immediately.
- (5) Prohibit the use of workplace fans near the degreaser opening.
- (6) Prohibit visually detectable water in the solvent from exiting the water separator.
- (7) Equip the degreaser with a permanent, conspicuous label that lists the operating requirements in subdivisions (1) through (6).

(b) The owner or operator of a conveyORIZED degreaser subject to this subsection shall ensure the following control equipment and operating requirements are met:

- (1) Equip the degreaser's entrances and exits with downtime covers that are closed when the degreaser is not operating.
- (2) Equip the degreaser with the following switches:
 - (A) A condenser flow switch and thermostat that shuts off sump heat if condenser coolant stops circulating or becomes too warm.
 - (B) A spray safety switch that shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).
 - (C) A vapor level control thermostat that shuts off sump heat when vapor level rises more than ten (10) centimeters (four (4) inches).
- (3) Equip the degreaser with entrances and exits that silhouette workloads in such a manner that the average clearance between the articles and the degreaser opening is either less than ten (10) centimeters (four (4) inches) or less than ten percent (10%) of the width of the opening.
- (4) Equip the degreaser with a drying tunnel, rotating or tumbling basket, or other equipment that prevents cleaned articles from carrying out solvent liquid or vapor.
- (5) Equip the degreaser with one (1) of the following control devices:
 - (A) A refrigerated chiller.
 - (B) A carbon adsorption system with ventilation that, with the downtime covers open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air-to-solvent interface area, and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.
 - (C) An alternative system of demonstrated equivalent or better control as those outlined in clause (A) or (B) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
- (6) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser opening unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.
- (7) Cover entrances and exits at all times except when processing workloads through the degreaser.
- (8) Ensure that the label required under subsection (a)(7) includes the additional operating requirements listed in subdivisions (6) and (7).

(Air Pollution Control Division; 326 IAC 8-3-4; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed Jan 30, 2013, 12:33 p.m.: 20130227-IR-326070352FRA)

326 IAC 8-3-5 Cold cleaner degreaser operation and control *(Repealed)*

Sec. 5. (Repealed by Air Pollution Control Division; filed Jan 30, 2013, 12:33 p.m.: 20130227-IR-326070352FRA)

326 IAC 8-3-6 Open top vapor degreaser operation and control requirements *(Repealed)*

Sec. 6. (Repealed by Air Pollution Control Division; filed Jan 30, 2013, 12:33 p.m.: 20130227-IR-326070352FRA)

326 IAC 8-3-7 ConveyORIZED degreaser operation and control *(Repealed)*

Sec. 7. (Repealed by Air Pollution Control Division; filed Jan 30, 2013, 12:33 p.m.: 20130227-IR-326070352FRA)

326 IAC 8-3-8 Material requirements for cold cleaner degreasers

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-3-12

Affected: IC 13-17-3

Sec. 8. (a) Material requirements specified in this section for use in cold cleaner degreasers apply as follows:

- (1) Before January 1, 2015, in Clark, Floyd, Lake, and Porter counties.
- (2) On and after January 1, 2015, anywhere in the state.
- (b) Material requirements are as follows:
 - (1) No person shall cause or allow the sale of solvents for use in cold cleaner degreasing operations with a VOC composite partial vapor pressure, when diluted at the manufacturer's recommended blend and dilution, that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) in an amount greater than five (5) gallons during any seven (7) consecutive days to an individual or business.
 - (2) No person shall operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (c) Record keeping requirements are as follows:

- (1) All persons subject to the requirements of subsection (b)(1) shall maintain all of the following records for each sale:
 - (A) The name and address of the solvent purchaser.
 - (B) The date of sale (or invoice/bill date of contract servicer indicating service date).
 - (C) The type of solvent sold.
 - (D) The volume of each unit of solvent sold.
 - (E) The total volume of the solvent sold.
 - (F) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (2) All persons subject to the requirements of subsection (b)(2) shall maintain each of the following records for each purchase:
 - (A) The name and address of the solvent supplier.
 - (B) The date of purchase (or invoice/bill date of contract servicer indicating service date).
 - (C) The type of solvent purchased.
 - (D) The total volume of the solvent purchased.
 - (E) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (d) All records required by subsection (c) shall be:
 - (1) retained on-site or accessible electronically from the site for the most recent three (3) year period; and
 - (2) reasonably accessible for an additional two (2) year period.

(Air Pollution Control Division; 326 IAC 8-3-8; filed Apr 27, 1999, 9:06 a.m.: 22 IR 2854; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed Jan 30, 2013, 12:33 p.m.: 20130227-IR-326070352FRA)