**Section 219.901 Emission Limitations and Control Requirements**

a) The owner or operator of a source subject to the requirements of this Subpart shall comply with the limitations in subsection (b), (c), or (d) of this Section, as well as with the limitations in subsections (e) and (f) of this Section. Notwithstanding this requirement, sources subject to Section 219.900(b)(2) shall comply with the limitations in subsection (f) of this Section only.

b) The owner or operator of adhesive application operations listed in this subsection (b) shall comply with the following VOM emission limitations, minus water and any compounds that are specifically exempted from the definition of VOM, as applied. If an adhesive is used to bond dissimilar substrates together, the substrate category with the highest VOM emission limitation shall apply:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  | | kg VOM/l adhesive or adhesive primer applied | lb VOM/gal adhesive or adhesive primer applied |
|  | 1) | General adhesive application operations | |  |  |
|  | | A) | Reinforced plastic composite | 0.200 | (1.7) |
|  | | B) | Flexible vinyl | 0.250 | (2.1) |
|  | | C) | Metal | 0.030 | (0.3) |
|  | | D) | Porous material (except wood) | 0.120 | (1.0) |
|  | | E) | Rubber | 0.250 | (2.1) |
|  | | F) | Wood | 0.030 | (0.3) |
|  | | G) | Other substrates | 0.250 | (2.1) |
|  | |  |  |  |  |

2) Specialty adhesive application operations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | A) | Ceramic tile installation | 0.130 | (1.1) |
|  |  |  |  |  |
|  | B) | Contact adhesive | 0.250 | (2.1) |
|  |  |  |  |  |
|  | C) | Cove base installation | 0.150 | (1.3) |
|  |  |  |  |  |
|  | D) | Indoor floor covering installation | 0.150 | (1.3) |
|  |  |  |  |  |
|  | E) | Outdoor floor covering installation | 0.250 | (2.1) |
|  | F) | Installation of perimeter bonded sheet flooring | 0.660 | (5.5) |
|  |  |  |  |  |
|  | G) | Metal to urethane/rubber molding or casting | 0.850 | (7.1) |
|  |  |  |  |  |
|  | H) | Motor vehicle adhesive | 0.250 | (2.1) |
|  |  |  |  |  |
|  | I) | Motor vehicle weatherstrip adhesive | 0.750 | (6.3) |
|  |  |  |  |  |
|  | J) | Multipurpose construction | 0.200 | (1.7) |
|  |  |  |  |  |
|  | K) | Plastic solvent welding (acrylonitrile butadiene styrene (ABS) welding) | 0.400 | (3.3) |
|  |  |  |  |  |
|  | L) | Plastic solvent welding (except ABS welding) | 0.500 | (4.2) |
|  |  |  |  |  |
|  | M) | Sheet rubber lining installation | 0.850 | (7.1) |
|  |  |  |  |  |
|  | N) | Single-ply roof membrane installation/repair (except ethylene propylenediene monomer (EPDM) roof membrane) | 0.250 | (2.1) |
|  |  |  |  |  |
|  | O) | Structural glazing | 0.100 | (0.8) |
|  |  |  |  |  |
|  | P) | Thin metal laminate | 0.780 | (6.5) |
|  |  |  |  |  |
|  | Q) | Tire repair | 0.100 | (0.8) |
|  |  |  |  |  |
|  | R) | Waterproof resorcinol glue | 0.170 | (1.4) |

3) Adhesive primer application operations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | A) | Motor vehicle glass bonding primer | 0.900 | (7.5) |
|  |  |  |  |  |
|  | B) | Plastic solvent welding adhesive primer | 0.650 | (5.4) |
|  |  |  |  |  |
|  | C) | Single-ply roof membrane adhesive primer | 0.250 | (2.1) |
|  |  |  |  |  |
|  | D) | Other adhesive primer | 0.250 | (2.1) |

c) No owner or operator of a source subject to this Subpart shall operate a miscellaneous industrial adhesive application operation unless the daily-weighted average VOM content of subject adhesives as applied each day by the operation, calculated in accordance with subsection (c)(1) of this Section, is less than or equal to the emissions limitation calculated in accordance with subsection (c)(2) of this Section.

1) Weighted Average of VOM Content of Adhesives Applied Each Day



where:

|  |  |  |
| --- | --- | --- |
| VOMWA | = | The weighted average VOM content in units of kg (lbs) VOM per volume in l (gal) of all subject adhesives as applied each day; |
|  | | |
| i | = | Subscript denoting a specific adhesive as applied; |
|  | | |
| n | = | The number of different adhesives as applied each day by each miscellaneous industrial adhesive application operation; |
|  | | |
| Vi | = | The volume of each adhesive, as applied, in units of l (gal); |
|  | | |
| VOMi | = | The VOM content in units of kg (lbs) VOM per volume in l (gal) of each adhesive as applied; |

2) Allowable Weighted Average VOM Limit for an Averaging Operation



where:

|  |  |  |
| --- | --- | --- |
| LimitWA | = | The allowable weighted average VOM limit in units of kg (lbs) VOM per volume in l (gal) of all subject adhesives as applied each day in a single operation; |
|  | | |
| i | = | Subscript denoting a specific adhesive as applied; |
|  | | |
| n | = | The number of different adhesives as applied each day by each miscellaneous industrial adhesive application operation; |
|  | | |
| Vi | = | The volume of each adhesive, as applied, in units of l (gal); |
|  | | |
| Limiti | = | The VOM limit, taken from subsection (b) of this Section, in units of kg (lbs) VOM per volume in l (gal) of each adhesive as applied. |

d) No owner or operator of a source subject to this Subpart shall operate a miscellaneous industrial adhesive application operation employing a capture system and control device unless either:

1) An afterburner or carbon adsorption system is used that provides at least 85 percent reduction in the overall emissions of VOM from the application operation;

2) An alternative capture and control system is used that provides at least 85 percent reduction in the overall emissions of VOM from the application operation and is approved by the Agency and approved by USEPA as a SIP revision. The owner or operator shall submit a plan to the Agency detailing appropriate monitoring devices, test methods, recordkeeping requirements, and operating parameters for the control device; or

3) The owner or operator complies with the applicable limitation set forth in subsection (b) of this Section by utilizing a combination of low-VOM adhesives and an afterburner or carbon adsorption system. The owner or operator may use an alternative capture and control system if the owner or operator submits a plan to the Agency detailing appropriate monitoring devices, test methods, recordkeeping requirements, and operating parameters for the capture and control system and the system is approved by the Agency and approved by USEPA as a SIP revision.

e) The owner or operator of a source subject to this Subpart shall apply all miscellaneous industrial adhesives using one or more of the following methods:

1) Electrostatic spray;

2) High volume low pressure (HVLP) spray;

3) Flow coating. For the purposes of this Subpart, flow coating means a non-atomized technique of applying coating to a substrate with a fluid nozzle with no air supplied to the nozzle;

4) Roll coating or hand application, including non-spray application methods similar to hand or mechanically powered caulking gun, brush, or direct hand application;

5) Dip coating, including electrodeposition. For purposes of this Subpart, "electrodeposition" means a water-borne dip coating process in which opposite electrical charges are applied to the substrate and the coating. The coating is attracted to the substrate due to the electrochemical potential difference that is created;

6) Airless spray;

7) Air-assisted airless spray; or

8) Another adhesive application method capable of achieving a transfer efficiency equal to or better than that achieved by HVLP spraying, if the method is approved in writing by the Agency.

f) The owner or operator of a source subject to this Subpart shall comply with the following work practices for each subject miscellaneous adhesive application operation at the source:

1) Store all VOM-containing adhesives, adhesive primers, process-related waste materials, cleaning materials, and used shop towels in closed containers;

2) Ensure that mixing and storage containers used for VOM-containing adhesives, adhesive primers, process-related waste materials, and cleaning materials are kept closed at all times except when depositing or removing those materials;

3) Minimize spills of VOM-containing adhesives, adhesive primers, process-related waste materials, and cleaning materials;

4) Convey VOM-containing adhesives, adhesive primers, process-related waste materials, and cleaning materials from one location to another in closed containers or pipes; and

5) Minimize VOM emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

(Source: Amended at 35 Ill. Reg. 13676, effective July 27, 2011)