

SECTION 101: VOC EMISSIONS CONTROL FOR INDUSTRIAL ADHESIVE OPERATIONS

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101.1 PURPOSE

Section 101 implements Control Technique Guidelines Reasonably Available Control Technology (CTG RACT) requirements for industrial adhesive operations as required by Section 182(b)(2)(A) of the Clean Air Act (the Act) under Title 42, Section 7511a of the U.S. Code (42 U.S.C. 7511a).

101.2 APPLICABILITY

- (a) Except as provided under Section 101.4, Section 101 is applicable to any owner or operator of a stationary source with projected maximum emissions of volatile organic compounds (VOC) equal to or greater than 3.0 tons per calendar year from industrial adhesive operations when the stationary source is located:
 - (1) In Hydrographic Area 212 (the Las Vegas Valley) in Clark County;
or
 - (2) In any other hydrographic area that the Administrator has designated nonattainment for ozone, and has classified as a moderate or higher ozone nonattainment area on or after January 5, 2023.
- (b) Except as provided under Section 101.4, Sections 101.6, 101.7(b)–(c), and 101.8–101.10 are applicable to any owner or operator of a stationary source with projected maximum emissions of VOC of less than 3.0 tons per calendar year from industrial adhesive operations when the stationary source is located:
 - (1) In Hydrographic Area 212 (the Las Vegas Valley) in Clark County;
or
 - (2) In any other hydrographic area that the Administrator has designated nonattainment for ozone, and has classified as a moderate or higher ozone nonattainment area on or after January 5, 2023.
- (c) Section 101 does not apply:
 - (1) If the stationary source uses less than 500 gallons (1,892 L) of industrial adhesive materials per calendar year in industrial adhesive operations.
 - (2) To the following activities at an industrial adhesives operation:
 - (A) Testing or evaluating adhesives or adhesive primers in a research and development, quality assurance, or analytical laboratory.

- (B) Conducting tire repair operations if the label for the adhesive states “For tire repair only.”
- (C) Assembling, repairing, and manufacturing aerospace components or undersea-based weapons systems.
- (D) Manufacturing medical equipment.
- (E) Assembling fiberglass parts at fiberglass boat manufacturing facilities, and at other reinforced plastic composite manufacturing facilities when using polyester bonding putties.

101.3 DEFINITIONS

Unless the context requires otherwise, the following terms shall have the meanings set forth below for the purposes of this section. When a term is not defined, it shall have the meaning provided in Section 0 of the Clark County Air Quality Regulations (AQRs), Chapter 445B of the Nevada Revised Statutes, the Act, or common usage, in that order of priority.

“Acrylonitrile-butadiene-styrene” or “ABS” means, with respect to a welding adhesive, any adhesive intended by the manufacturer to weld acrylonitrile-butadiene-styrene pipe, which is made by reacting monomers of acrylonitrile, butadiene, and styrene.

“Adhesive” means a material applied for the primary purpose of bonding two surfaces together by surface attachments. Adhesives may be used to facilitate the attachment of two surfaces or substances in varying degrees of permanence.

“Adhesive primer” means any product intended by the manufacturer for application to a substrate prior to the application of an adhesive to provide a bonding surface.

“Aerospace component” means, for the purposes of this rule, the fabricated part, assembly of parts, or completed unit of any aircraft, helicopter, missile, or space vehicle, including passenger safety equipment.

“Aerosol adhesive” means an adhesive packaged as an aerosol product in which the spray mechanism is permanently housed in a nonrefillable can designed for handheld application without the need for ancillary hoses or spray equipment.

“Airless spray” means an application method using a pump to force the industrial adhesive material through an atomizing nozzle at high pressure (1,000–6,000 pounds per square inch [psi]).

“Air-assisted airless spray” means an application method consisting of an airless spray gun with a compressed air jet at the gun tip to atomize industrial adhesive material at low pressure (5–20 psi).

“ASTM methods” means methods developed and recommended by ASTM International, formerly the American Society for Testing and Materials.

“Ceramic tile installation adhesive” means any adhesive intended by the manufacturer for use in the installation of ceramic tiles.

“Cleanup solvent” means a VOC-containing material used to remove a loosely held, uncured (i.e., not dry to the touch) adhesive from a substrate or to clean equipment used in applying an industrial adhesive material.

“Contact adhesive” means an adhesive that:

1. Is applied to both surfaces to be bonded together.
2. Dries before the two surfaces are placed in contact with each other.
3. Forms an immediate bond that is difficult or impossible to reposition after both adhesive-coated surfaces are placed in contact with each other.
4. Does not need sustained pressure or clamping of surfaces after the adhesive-coated surfaces have been brought together using sufficient momentary pressure to establish full contact between both surfaces.
5. Contact adhesives do not include rubber cements primarily intended for use on paper substrates or vulcanizing fluids designed and labeled “for tire repair only.”

“Cove base” means a flooring trim unit generally made of vinyl or rubber, with a concave radius on one edge and a convex radius on the opposite edge, that is used in forming a junction between the bottom wall course and the floor or to form an inside corner.

“Cove base installation adhesive” means any adhesive intended by the manufacturer to be used for the installation of cove base or wall base on a wall or vertical surface at floor level.

“Cyanoacrylate adhesive” means any adhesive with a cyanoacrylate content of at least 95% by weight.

“Emission Control System (ECS)” means the combination of an emissions capture device and an add-on emissions control device that reduces VOC emissions and that is designed and operated in accordance with good engineering practice.

“EPDM roof membrane” means a prefabricated single sheet of elastomeric material composed of ethylene propylenediene monomer that is field-applied to a building roof using one layer of membrane material.

“Exempt compound” means a specified organic compound, as listed in 40 CFR Part 51.100, that the Administrator has determined to have negligible photochemical reactivity.

“Existing industrial adhesive operations” means industrial adhesive operations for which the owner or operator began actual construction or reconstruction before April 2, 2024, or first constructed and operated on or after April 2, 2024, and subsequently modified such that the industrial adhesive operations became subject to Section 101 after the modification.

“Existing inventory” means industrial adhesive materials that an owner or operator purchased before April 2, 2024.

“Flexible vinyl” means non-rigid polyvinyl chloride plastic with at least 5% by weight plasticizer content.

“Floor covering installation adhesive” means:

1. For indoor flooring installations, any adhesive intended by the manufacturer for use in the installation of wood flooring, carpet, resilient tile, vinyl tile, vinyl backed carpet, resilient sheet and roll, or artificial grass. Adhesives used to install ceramic tile and perimeter bonded sheet flooring with vinyl backing onto a nonporous substrate, such as flexible vinyl, are excluded from this category.
2. For outdoor flooring installations, any adhesive intended by the manufacturer for use in the installation of floor covering that is not in an enclosure and that is exposed to ambient weather conditions during normal use.
3. For perimeter bonded sheet flooring installation, any installation of sheet flooring with vinyl backing onto a nonporous substrate using an adhesive designed to be applied only to a strip of up to 4 inches (10.2 cm) wide around the perimeter of the sheet flooring.

“Flow coat” means an application method accomplished by flowing a stream of industrial adhesive material over an object.

“Industrial adhesive” means an adhesive or adhesive primer applied at a manufacturing or repair facility.

“Industrial adhesive operations” means the operation of one or more pieces of equipment used to apply, dry, and/or cure an adhesive or adhesive primer at a stationary source, along with all associated cleanup and storage operations.

“Industrial adhesive material” means adhesives, adhesives primer, solvent, and cleanup solvent used in industrial adhesive operations that contain more than 0.17 lb. of VOC/gal (20 g/L), as applied, excluding water and exempt compounds as used.

“In use” means the active application of industrial adhesive material or cleaning solvent to a substrate or equipment or the filling or draining of a container holding an industrial adhesive, cleaning solvent, or waste material.

“Laminate” means a product made by bonding together two or more layers of material.

“Low solids material” means any adhesive product that contains 0.26 lb. (120 grams) or less of solids per liter of material.

“Manufacturing medical equipment” means the manufacture of medical devices such as, but not limited to, catheters, heart valves, blood cardioplegia machines, tracheostomy tubes, blood oxygenators, and cardiatory reservoirs.

“Material change” means a change in the owner or operator, a change in location, a change in compliance method, a change to a different ECS, or an increase in either the stationary source’s maximum emissions or its annual actual emissions of VOC above the projected maximum emissions.

“Metal to urethane/rubber molding or casting adhesive” means any adhesive intended by the manufacturer to bond metal to high-density or elastomeric urethane or molded rubber materials, in heater molding or casting processes, to fabricate products such as rollers for computer printers or other paper-handling equipment.

“Motor vehicle adhesive” means an adhesive, including glass bonding adhesive, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied for the purpose of bonding two vehicle surfaces together without regard to the substrates involved.

“Motor vehicle glass bonding primer” means a primer that is used at a facility that is not an automobile or light-duty truck assembly coating facility and that is applied to windshield or other glass, or to body openings, to prepare the glass or body opening for the application of glass bonding adhesives or the installation of adhesive bonded glass. Motor vehicle glass bonding primer includes glass bonding/cleaning primers that perform both functions (cleaning and priming of the windshield, other glass, or body openings) prior to the application of adhesive or the installation of adhesive bonded glass.

“Motor vehicle weatherstrip adhesive” means an adhesive that is used at a facility that is not an automobile or light-duty truck assembly coating facility and that is applied to weatherstripping materials to bond the weatherstrip material to the surface of a vehicle.

“Multipurpose construction adhesive” means any adhesive intended by the manufacturer for use in the installation or repair of various construction materials, including, but not limited to, drywall, subfloor, panel, fiberglass reinforced plastic, ceiling tile, and acoustical tile.

“New industrial adhesives operations” means industrial adhesives operations for which the owner or operator began actual construction or reconstruction on or after April 2, 2024.

“Plastic cement welding adhesive” means any adhesive intended by the manufacturer for use to dissolve the surface of plastic to form a bond between mating surfaces.

“Plastic solvent welding adhesive” means any adhesive intended by the manufacturer for use to dissolve the surface of plastic to form a bond between mating surfaces.

“Plastic solvent welding adhesive primer” means any primer intended by the manufacturer for use to prepare plastic substrates before bonding or welding.

“Plasticizer” means a material, such as a high boiling point organic solvent, that is incorporated into a vinyl to increase its flexibility, workability, or distensibility, as determined by ASTM Method E-260-96.

“Polyvinyl chloride plastic” or “PVC plastic” means a polymer of the chlorinated vinyl monomer that contains 57% chlorine.

“Polyvinyl chloride welding adhesive” or “PVC welding adhesive” means any adhesive intended by the manufacturer for use in the welding of PVC plastic pipe.

“Porous material” means a substance that has tiny openings, often microscopic, in which fluids may be absorbed or discharged, including, but not limited to, wood, paper, and corrugated paperboard.

“Projected maximum emissions” means the highest annual rate, in tons per year, at which the stationary source is projected to emit VOC based on anticipated production, throughput, heat input, or material utilization rates that does not include emission reductions from add-on controls.

“Reactive diluent” means a liquid that is a reactive organic compound during application, and one that through chemical and/or physical reactions (such as polymerization) becomes 20% or more of the finished material.

“Reinforced plastic composite” means a composite material consisting of plastic reinforced with fibers.

“Repair” means gluing together the edges of torn membrane, attaching a patch over a hole, and reapplying flashings to vents, pipes, or ducts installed through the membrane.

“Rubber” means any natural or manmade rubber substrate, including, but not limited to, styrene-butadiene rubber, polychloroprene (neoprene), butyl rubber, nitrile rubber, chlorosulfonated polyethylene, and ethylene propylene diene terpolymer.

“Sheet-applied rubber installation” means the process of applying sheet rubber liners by hand to metal or plastic substrates to protect the underlying substrate from corrosion or abrasion. These operations also include laminating sheet rubber to fabric by hand.

“Single-ply roof membrane” means a prefabricated single sheet of rubber, normally ethylene-propylenediene terpolymer, that is field applied to a building roof using one layer of membrane material.

“Single-ply roof membrane installation and repair adhesive” means any adhesive labeled for use in the installation or repair of single-ply roof membrane. Installation includes, as a minimum, attaching the edge of the membrane to the edge of the roof and applying flashings to vents, pipes, and ducts that protrude through the membrane.

“Slot-die coating” means a precision liquid coating method used to apply thin and uniform layers of adhesives to a substrate by distributing a metered quantity of adhesive through a slotted head onto a moving substrate.

“Single-ply roof membrane adhesive primer” means any primer labeled for use to clean and promote adhesion of single-ply roof membrane seams or splices prior to bonding.

“Solvent” means any substance containing an organic compound (or combination of organic compounds) that is liquid at atmospheric pressure and ambient temperature and is used as a diluent, thinner, dissolver, viscosity reducer, or cleaning agent, or other additive used for a similar purpose. It does not include substances used as fuel, antiseptics, or anesthetics.

“Structural glazing adhesive” means any adhesive intended by the manufacturer to apply glass, ceramic, metal, stone, or composite panels to exterior building frames.

“Thin metal laminating adhesive” means any adhesive intended by the manufacturer for use in bonding multiple layers of metal to metal or metal to plastic in the production of electronic or magnetic components in which the thickness of the bond line(s) is less than 0.25 mil.

“Tire repair” means a process that includes expanding a hole, tear, fissure, or blemish in a tire casing by grinding or gouging, applying adhesive, and filling the hole or crevice with rubber.

“Undersea-based weapons systems” means the fabrication of parts, assembly of parts, or completed units of any portion of a missile launching system used on undersea ships.

“VOC-containing material” means any coatings, solvent, or cleaning material used in industrial adhesive operations that contain more than 0.17 lb/gal (20 g/L) of VOC as applied, excluding water and exempt compounds.

“Waste material” means any VOC-containing material designated for disposal, including VOC-laden rags and wipes.

“Waterproof resorcinol glue” means a two-part resorcinol-resin-based adhesive designed for applications where the bond line must be resistant to conditions of continuous immersion in fresh or salt water.

101.4 EXEMPTIONS

Unless and until the Control Officer objects to an owner or operator’s use of an exemption in accordance with Section 101.9, industrial adhesive operations that meet the criteria in this section are exempt from one or more requirements of Section 101 if the owner or operator complies with the notification, recordkeeping, and reporting requirements in Section 101.9, as applicable.

- (a) Sections 101.5–101.8 (related to emissions standards, work practice requirements, compliance obligations, and registration requirements) and Sections 101.9.1(a), 101.9.2, and 101.9.3 (related to testing notification, recordkeeping, and reporting requirements) do not apply when VOC emissions from the industrial adhesive operations are controlled by RACT emissions standard(s) at least as stringent as Section 101 under another SIP-approved applicable section of the AQRs.
- (b) Section 101.5 (related to emissions standards) does not apply to the use of any industrial adhesive materials provided the total volume of noncomplying industrial adhesive materials is less than 55 gallons (208.2 L) per calendar year.
- (c) Sections 101.5–101.7 (related to emissions standards, work practice requirements, and compliance obligations) do not apply when using the materials listed in paragraphs (c)(1)–(3) of this section. Sections 101.5–101.8 (related to emissions standards, work practice requirements, compliance obligations, and registration requirements), 101.9.1 (related to notifications), and 101.9.3 (related to reporting requirements) do not apply if these are the only materials used at the industrial adhesive operations:
 - (1) Cyanoacrylate adhesive.
 - (2) Adhesives or adhesive primers that are sold or supplied by the manufacturer or supplier in containers with a net volume of 16 fluid ounces (473 ml) or less, or a net weight of one pound (454 g) or less, except for plastic cement welding adhesives and contact adhesives.

- (3) Contact adhesives that are sold or supplied by the manufacturer or supplier in containers with a net volume of one gallon (3.8 L) or less.

101.5 EMISSIONS STANDARDS

Except as provided in Section 101.4, an owner or operator of industrial adhesive operations shall limit VOC emissions from industrial adhesive operations by complying with paragraph (a); or paragraphs (b) and (d); or paragraphs (c) and (d) of this section.

- (a) Reduce VOC emissions from industrial adhesive operations using an ECS that reduces VOC emissions by at least 85% by weight.
- (b) Use VOC-compliant coatings that meet the following requirements:
 - (1) The VOC content of adhesives and adhesive primers, as applied, excluding water and exempt compounds, is equal to or less than the VOC content limit listed for the applicable adhesive or substrate type in Table 1.
 - (2) When bonding dissimilar substrates together, the VOC content is less than the highest VOC content limit among the applicable substrate types in Table 1.

Table 1. VOC Content Limits for Adhesives and Adhesive Primers

General Adhesives Based on Substrate Type	VOC Content Limit ^{1,2}	
	(g/L)	(lb/gal)
Reinforced plastic composite	200	1.7
Flexible vinyl	250	2.1
Metal	30	0.3
Porous material (except wood)	120	1
Rubber	250	2.1
Wood	30	0.3
Other substrates	250	2.1
Specialty Adhesives Based on Application	VOC Content Limit ¹	
	(g/L)	(lb/gal)
Ceramic tile installation	130	1.1
Contact	250	2.1
Cove base installation	150	1.3
Floor covering installation (indoor)	150	1.3
Floor covering installation (outdoor)	250	2.1
Floor covering installation (perimeter bonded sheet vinyl)	660	5.5
Metal to urethane/rubber molding or casting	850	7.1
Motor vehicle adhesive	250	2.1
Motor vehicle weatherstrip	750	6.3
Multipurpose construction	200	1.7

Table 1. VOC Content Limits for Adhesives and Adhesive Primers (cont.)

Specialty Adhesives Based on Application (cont.)	VOC Content Limit ¹	
	(g/L)	(lb/gal)
Plastic solvent welding (ABS)	400	3.3
Plastic solvent welding (except ABS)	500	4.2
Sheet-applied rubber installation	850	7.1
Single-ply roof membrane installation/repair (except EPDM)	250	2.1
Structural glazing	100	0.8
Thin metal laminating	780	6.5
Tire repair	100	0.8
Waterproof resorcinol glue	170	1.4
Adhesive Primers	VOC Content Limit ¹	
	(g/L)	(lb/gal)
Motor vehicle glass bonding primer	900	7.5
Plastic solvent welding adhesive primer	650	5.4
Single-ply roof membrane adhesive primer	250	2.1
Other adhesive primer	250	2.1

¹ Limits are mass of VOC per volume of adhesive or adhesive primer, excluding water and exempt compounds, as applied.

² If an adhesive is used to bond dissimilar substrates together, the applicable substrate category with the highest VOC emission limit applies.

- (c) Use low-VOC industrial adhesives and an ECS that, in combination, result in a mass of VOC per volume of industrial adhesive material no greater than the emissions control requirement in paragraph (b) of this section on a monthly average basis.
- (d) Use one or more of the following efficient application methods:
 - (1) Electrostatic spray coating;
 - (2) Flow coating;
 - (3) Dip coating, including electrodeposition;
 - (4) Roll coating or hand application, including non-spray application methods such as a hand or mechanically powered caulking gun, a brush, or direct hand application;
 - (5) HVLP spray coating;
 - (6) Airless spray coating;
 - (7) Air-assisted airless spray coating;
 - (8) Slot-die coating designed and operated to achieve at least 65% transfer efficiency; or

- (9) An adhesive application method that is designed and operated to achieve at least 65% transfer efficiency.

101.6 WORK PRACTICE REQUIREMENTS FOR STORING, HANDLING, AND DISPOSING OF INDUSTRIAL ADHESIVE MATERIALS AND WASTE MATERIALS

An owner or operator of industrial adhesive operations shall comply with the following requirements of this section to minimize VOC emissions to the atmosphere:

- (a) Ensure all containers with a capacity of 1 gallon (3.8 L) or more are clearly labeled with the product name and the type of industrial adhesive material or waste materials inside.
- (b) Repair any liquid leak, visible tear, or crack detected in a storage container within one calendar day or drain all contents from the leaking container and transfer the contents to a container meeting the requirements of paragraph (d) of this section. The owner or operator may not use the leaking container until repaired or replaced.
- (c) Securely close all containers containing industrial adhesive material or waste materials when not in use, and store VOC-laden rags and wipes in closed containers when not in use.
- (d) Use closed, nonabsorbent, nonleaking containers to store and dispose of industrial adhesive material and waste materials, including used rags and wipes.
- (e) Use care when handling and transferring industrial adhesive materials and waste materials to and from containers, enclosed systems, waste receptacles, and other equipment to minimize spills; immediately contain and clean up any spills that occur.
- (f) Use closed and labeled containers or pipes to convey industrial adhesive material and waste material from one location to another.
- (g) Minimize VOC emissions from the cleaning of application, storage, mixing, or conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleanup solvent and that all spent solvent is captured in closed containers.

101.7 COMPLIANCE OBLIGATIONS

To demonstrate compliance with the emissions standards and work practices in Section 101, an owner or operator of industrial adhesive operations shall:

- (a) Perform the following calculations (the variables needed can be found in EPA Test Method 24 and/or manufacturer's data sheets). The

manufacturer's information may contain the VOC content information required in paragraphs (1)–(3) of this section, removing the need to calculate the values:

- (1) For adhesives or adhesive primers that do not contain reactive diluents, calculate the VOC content in weight of VOC per volume of adhesive or adhesive primer, excluding water and exempt compounds, using the following equation:

$$\text{Adhesive}_{\text{voc}} = \frac{(W_s - W_w - W_{es})}{(V_m - V_w - V_{es})}$$

where:

$\text{Adhesive}_{\text{voc}}$ = VOC content per volume of adhesive or adhesive primer (g/L or lb/gal)

W_s = weight of volatile compounds, including water and exempt compounds

W_w = weight of water

W_{es} = weight of exempt compounds

V_m = volume of material, including water and exempt compounds

V_w = volume of water

V_{es} = volume of exempt compounds.

- (2) For adhesives or adhesive primers that contain reactive diluents, calculate the VOC content in weight of VOC per volume of adhesive or adhesive primer, excluding water and exempt compounds, after curing using the following equation:

$$\text{Adhesive}_{\text{voc}} = \frac{(W_{rs} - W_{rw} - W_{res})}{(V_{rm} - V_{rw} - V_{re})}$$

where:

$\text{Adhesive}_{\text{voc}}$ = VOC content per volume of adhesive or adhesive primer (g/L or lb/gal)

W_{rs} = weight of volatile compounds not consumed during curing

W_{rw} = weight of water not consumed during curing

W_{re} = weight of exempt compounds not consumed during curing

V_{rm} = volume of material not consumed during curing

V_{rw} = volume of water not consumed during curing

V_{re} = volume of exempt compounds not consumed during curing.

- (3) Calculate grams of VOC per liter or pounds of VOC per gallon of low-solids material using the following equation:

$$\text{Weight per volume of materials} = \frac{W_s - W_w - W_e}{V_m}$$

where:

W_s = weight of volatile compounds

W_w = weight of water

W_e = weight of exempt compounds

V_m = volume of material.

- (b) Conduct periodic (at least quarterly) inspections to assure compliance with the requirements of Section 101.6.
- (c) Provide training to newly hired workers on the work practice requirements of Section 101.6.

101.7.1 Compliance When Using an Emissions Control System

An owner or operator of industrial adhesive operations using an ECS shall:

- (a) Develop, maintain, and comply with an operations and maintenance plan, in accordance with manufacturer recommendations where available, if using an ECS to comply with Section 101.5. Such plan shall:
- (1) Identify monitoring devices, monitoring frequencies, and key system operating parameters, i.e., those needed to ensure that good operation and engineering practices are associated with operation of the ECS, such as temperature, pressure, and/or flow rate.
 - (2) Include schedules for inspection, schedules for anticipated ongoing maintenance, and proposed recordkeeping practices regarding the key system operating parameters.
 - (3) Include a monitoring plan to ensure proper operation of the ECS using the key operating parameters identified.
 - (4) Include provisions for minimizing emissions during periods of startup, shutdown, and malfunction.
 - (5) Determine the control efficiency of the ECS used to comply with Section 101 through manufacturer design specifications or

performance testing. The following reference materials may assist in determining the control efficiency of the ECS:

- (A) "Guidelines for Determining Capture Efficiency," EPA Office of Air Quality Planning and Standards, January 9, 1995.
 - (B) EPA Test Methods 1–4 in 40 CFR Part 60, Appendices A–1 through A–3, to determine flow rates.
 - (C) "Method 204—Criteria for and Verification of a Permanent or Temporary Total Enclosure," at 40 CFR Part 51, Appendix M; or, as applicable, EPA Test Methods 204A, 204B, 204C, or 204D.
 - (D) "Method 18—Measurement of Gaseous Organic Compound Emissions by Gas Chromatography," at 40 CFR Part 60, Appendix A–6.
 - (E) "Method 25—Determination of Total Gaseous Nonmethane Organic Emissions as Carbon," at 40 CFR Part 60, Appendix A–7, or, as applicable, EPA Test Methods 25A or 25B.
- (b) Install, calibrate, operate, and maintain monitoring devices on an ECS used to comply with Section 101 according to manufacturer specifications and the operations and maintenance plan.
 - (c) Operate the monitoring devices required by paragraph (b) of this section at all times an ECS operates.

101.8 REGISTRATION REQUIREMENTS

An owner or operator of industrial adhesive operations shall comply with the registration requirements of this section, as indicated below.

- (a) Except as provided in paragraph (d) of this section, an owner or operator of industrial adhesive operations shall comply with the following registration requirements:
 - (1) No later than September 29, 2024, or 45 days after becoming subject to any requirements in Section 101, whichever is later, submit a registration application to the Control Officer in the manner and form prescribed that includes, at a minimum, the following information:
 - (A) Name, email address, and telephone number of the owner or operator and the Responsible Official;

- (B) Company name and address (and source name and address, if different);
 - (C) Projected maximum emissions of VOC (in tons per calendar year) from industrial adhesive operations at the stationary source;
 - (D) Calculations to support the values reported in paragraph (a)(1)(C) of this section;
 - (E) Type of ECS used to comply with Section 101, if any;
 - (F) Copy of the ECS operations and maintenance plan developed to comply with Section 101.7.1, if required;
 - (G) A declaration signed by the Responsible Official under penalty of perjury that the statements and information in the registration are true, accurate, and complete. Signature on the declaration statement shall subject the Responsible Official to liability for perjury under NRS 199.145; and
 - (H) Other information as required by the Control Officer.
- (2) Submit an updated registration to the Control Officer within 60 days of a material change.
- (b) The Control Officer may require updated information after the initial registration to determine that the source continues to operate below the applicability threshold in Section 101.2(a).
 - (c) Owners or operators may submit a revised registration application with reduced projected maximum emissions from industrial adhesive operations at the stationary source if less than 3.0 tons of VOC were emitted and reported in each of the previous three consecutive calendar years.
 - (d) In lieu of complying with the registration requirements of Section 101.8, but by the deadlines established in paragraph (a)(1), a stationary source regulated by a minor source permit, an authority to construct permit, or a Part 70 operating permit shall apply for a permit revision to incorporate Section 101 requirements in accordance with the requirements in Sections 12.1, 12.4, and 12.5.

101.9 NOTIFICATION, RECORDKEEPING, AND REPORTING REQUIREMENTS

An owner or operator of industrial adhesive operations shall comply with the notification, recordkeeping, and reporting requirements of this section, as indicated below. The Control Officer may deny exemption use or applicability status upon finding that the

industrial adhesive operation does not meet the eligibility criteria for exemption(s) or applicability, the stationary source has a poor regulatory compliance history, or the RACT emissions standard does not provide comparable emission reductions to Section 101.

101.9.1 Notification Requirements

- (a) Owners or operators using a performance test to determine the control efficiency of an ECS to comply with Section 101.5 shall comply with the following requirements and with the compliance dates in Section 101.10:
 - (1) Conduct a performance test within 180 days of initial operation of the ECS or September 29, 2024, whichever is later.
 - (2) Submit a performance testing protocol to the Control Officer in accordance with department guidelines containing test, reporting, and notification schedules, test protocols, and anticipated test dates at least 45 days, but no more than 90 days, before the anticipated test date.
 - (3) Submit a report to the Control Officer in accordance with department guidelines describing the results of a performance test within 60 days of completing the test.
- (b) Owners or operators relying on the exemption in Section 101.4(a) shall submit a notice to the Control Officer that identifies the exemption claimed by the owner or operator within 30 days of the applicable compliance date in Section 101.10.

101.9.2 Recordkeeping Requirements

An owner or operator of industrial adhesive operations shall comply with the following recordkeeping requirements:

- (a) Owners or operators required to comply with Section 101 shall, at a minimum:
 - (1) Maintain records to document eligibility for applicability thresholds or for any exemption claimed under Section 101.4.
 - (2) Retain all records for a period of five years from their creation.
 - (3) Make records available and producible onsite to the Control Officer's authorized representative upon request and without prior notice during the owner or operator's hours of operation.
 - (4) Each month, record the type and amount of VOC-containing material used in the previous month. The owner or operator may track the actual use of VOC-containing material or use purchase

and inventory records (assuming that all purchases not retained in inventory are used).

- (5) Maintain a list of VOC-containing materials used that includes, at a minimum:
 - (A) Material name and manufacturer;
 - (B) VOC content of each VOC-containing material, listed as lb/gal or g/L of VOC; and
 - (C) Product data sheet or technical data sheet with specific mixing instructions and the VOC content, as applied, of VOC-containing material requiring dilution.
 - (6) Maintain a record of calendar year emission calculations.
- (b) Owners or operations using noncompliant industrial adhesive materials, as allowed under Section 101.4(b), shall keep a separate list to demonstrate compliance with the exemption, including, at a minimum:
 - (1) Material name and manufacturer; and
 - (2) Monthly and annual total gallons or liters of noncompliant industrial adhesive materials used.
 - (c) Owners or operators using an ECS to comply with Section 101.5 shall:
 - (1) Maintain a record of monitoring of the key system operating parameters specified in the operations and maintenance plan.
 - (2) Record and maintain monitoring data collected to comply with Section 101.7.1(b).
 - (d) Owners or operators required to comply with Sections 101.6 and 101.7(b)–(c) shall maintain inspection and training logs.

101.9.3 Reporting Requirements

- (a) Owners or operators subject to Section 101.2(a) shall complete and submit to the Control Officer an annual emissions inventory for VOCs in the manner and form prescribed.
- (b) The inventory must be submitted to and received by the department on or before March 31 of each year (or other specified date upon prior notice from the Control Officer), and shall include emission factors and

calculations used to determine emissions in the previous calendar year.

- (c) The inventory shall include, at a minimum:
 - (1) Actual annual emissions of VOC (in tons per calendar year) for the previous calendar year from industrial adhesive operations at the stationary source; and
 - (2) Calculations to support the values reported in paragraph (c)(1) of this section.
- (d) Any information submitted pursuant to this section shall contain a certification by the Responsible Official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the information in the statement or inventory is true, accurate, and complete.

101.10 COMPLIANCE DATES

- (a) Except as provided in paragraphs (c)–(e) of this section, an owner or operator of existing industrial adhesive operations shall comply with the requirements in Section 101 by September 29, 2024, or by the date the industrial adhesive operations commence normal operations or meet the applicability criteria in Section 101.2, whichever of the three dates is later.
- (b) An owner or operator of new industrial adhesive operations shall comply with Section 101 upon commencing normal operation.
- (c) An owner or operator of existing industrial adhesive operations may use industrial adhesive materials from their existing inventory that do not meet the requirements of Section 101.5 until April 2, 2025, or 12 months after first becoming subject to Section 101, whichever is later. Except as provided in Section 101.4(b), beginning on the compliance date specified in paragraph (a) of this section, an owner or operator shall not purchase industrial adhesive materials that do not comply with the VOC content limitations in Section 101.5(b) unless emissions from such industrial adhesive materials are controlled in accordance with the requirements in Section 101.5(a) or Sections 101.5(c) and (d).
- (d) An owner or operator of existing industrial adhesive operations who elects to comply with Section 101.5 by installing a new ECS must comply with Section 101.5(a) or 101.5(c) no later than September 24, 2025.
- (e) The Control Officer may establish an alternative compliance date for meeting Section 101.5 not later than April 2, 2027, considering the

technical feasibility and time needed to comply, through issuance of a minor source permit or an authority to construct permit, or by revising a Part 70 operating permit. The filing of a complete application for a minor source permit, authority to construct permit, or Part 70 significant permit revision requesting an alternative compliance date stays the compliance date in paragraph (a) of this section until the proposed alternative compliance date, or until the Control Officer denies the request or issues the minor source permit, authority to construct permit, or revised Part 70 operating permit.

History: Adopted March 19, 2024 (Ord. No. 5199). Amended February 4, 2025 (Ord. No. 5217).