

SECTION 108: VOC EMISSIONS CONTROL FOR PAPER, FILM, FOIL, FABRIC, OR VINYL COATING OPERATIONS

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108.1 PURPOSE

Section 108 implements Control Techniques Guidelines Reasonably Available Control Technology (CTG RACT) requirements for paper, film, foil, fabric, or vinyl coating 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).

108.2 APPLICABILITY

(a) Except as provided under Section 108.4, Section 108 is applicable to any owner or operator of a stationary source with projected maximum emissions of volatile organic compounds (VOCs) equal to or greater than 3.0 tons per calendar year from paper, film, foil, fabric, or vinyl coating 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 108.4, Sections 108.6, 108.7(b)–(c), and 108.8–108.10 are applicable to any owner or operator of a stationary source with projected maximum emissions of VOCs of less than 3.0 tons per calendar year from paper, film, foil, fabric, or vinyl coating 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 108 does not apply:

(1) If the stationary source uses less than 500 gallons (1,892 L) of coatings per calendar year in each paper, film, foil, fabric, or vinyl coating operation.

(2) When applying paper, film, foil, fabric, or vinyl coating to:

(A) Test panels or coupon;

- (B) Packaging used exclusively for food or health care products for human or animal consumption; or
- (C) Materials used in research and development, quality control, or performance evaluation activities.

108.3 **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 (NRS), the Act, or common usage, in that order of priority.

“Adhesive” means any chemical substance applied for the purpose of bonding two surfaces together other than by mechanical means.

“Coating” means a material containing more than 0.17 lb/gal of VOCs (20 g/L) as applied, excluding water and exempt compounds, that is applied onto or into a substrate for protective, decorative, or functional purposes, and that dries or cures to form a continuous solid film. The term includes paints, sealants, caulks, primers, inks, maskants, varnish, stains, lacquer, enamel, and shellac. The term does not include protective oils, acids or bases, adhesives, or combinations of these materials.

“Coating operation” means all steps involved in the application of one or more coatings, including application, drying or curing, surface preparation, and cleaning steps.

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

“Fabric” means a textile material. Nonmanufactured items from nature are not fabric except for natural threads, fibers, filaments, and similar items that have been manufactured into textile material (e.g., cotton, wool, silk).

“Fabric coating” means a decorative or protective coating or reinforcing material applied onto or impregnated into textile fabric.

“Film coating” means a coating applied in a web coating process onto film substrate other than paper or fabric, including, but not limited to, typewriter ribbons, photographic film, magnetic tape, and metal foil gift wrap.

“Foil coating” means a coating applied in a web coating process onto any foil substrate other than paper or fabric, including, but not limited to, typewriter ribbons, photographic film, magnetic tape, and metal foil gift wrap.

“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 VOCs above the projected maximum emissions.

"Paper coating" means a coating applied onto or impregnated into paper, including, but not limited to, adhesive, adhesive tapes, book covers, postcards, office copier paper, and drafting paper.

"Pressure sensitive tape" or "label coating" means a permanently tacky adhesive applied to one side of a flexible strip of paper, backing material, or other material that will adhere the strip to a variety of surfaces with light pressure.

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

"Vinyl coating" means a decorative, protective, or reinforcing coating applied over vinyl-coated textile fabric or vinyl sheets.

"VOC-containing material" means any coatings, solvents, or cleaning materials used in miscellaneous metal or plastic part operations that contain more than 0.17 lb/gal (20 g/L) of VOCs as applied, excluding water and exempt compounds.

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

108.4 **EXEMPTIONS**

Unless and until the Control Officer objects to an owner or operator's use of an exemption in accordance with Section 108.9, paper, film, foil, fabric, or vinyl coating operations that meet the criteria in this section are exempt from one or more requirements of Section 108 if the owner or operator complies with the notification, recordkeeping, and reporting requirements in Section 108.9, as applicable.

- (a) Sections 108.5–108.8 (related to emissions standards, work practice requirements, compliance obligations, and registration requirements), 108.9.1(a), 108.9.2, and 108.9.3 (related to testing, notification, recordkeeping, and reporting requirements) do not apply when VOC emissions from the paper, film, foil, fabric, or vinyl coating operations are controlled by RACT emissions standards at least as stringent as Section 108 under another applicable section of the AQRs that is approved for the State Implementation Plan.
- (b) Section 108.6 (related to work practice requirements) and Sections 108.7 (b)–(c) (related to compliance obligations) do not apply when a stationary source uses only aerosol products in paper, film, foil, fabric, or vinyl coating operations.

- (c) Section 108.5 (related to emissions standards) does not apply to any individual paper, film, or foil coating operation with an uncontrolled potential to emit VOCs equal to or less than 25 tons per calendar year.

108.5 EMISSIONS STANDARDS

Except as provided in Section 108.4, an owner or operator of paper, film, foil, fabric, or vinyl coating operations shall limit VOC emissions from coating operations by complying with paragraph (a) or paragraph (b) of this section.

- (a) Maintain an ECS with a minimum overall control efficiency of 90% when applying paper, film, foil, fabric, or vinyl coating that exceeds the applicable VOC limits in paragraph (b) of this section.
- (b) Use coatings that, as applied, have a VOC content equal to or less than the VOC content limit for the applicable coating category specified in Table 1.

Table 1. Coating VOC Content Limits for Paper, Film, Foil, Fabric, and Vinyl Coatings

<u>Coating Category</u>	<u>g VOC/L (excluding water)</u>	<u>lb VOC/gal (excluding water)</u>	<u>kg VOC/kg coating (lb VOC/ lb coating)</u>	<u>kg VOC/kg solids (lb VOC/lb solids)</u>
<u>Fabric</u>	<u>350</u>	<u>2.9</u>		
<u>Vinyl</u>	<u>450</u>	<u>3.8</u>		
<u>Paper, film, and foil (not including pressure-sensitive tape and label coating)</u>			<u>0.08</u>	<u>0.40</u>
<u>Paper, film, and foil with pressure-sensitive tape and label coating</u>			<u>0.067</u>	<u>0.20</u>

108.6 WORK PRACTICES REQUIREMENTS FOR USING, STORING, HANDLING, AND DISPOSING OF VOC-CONTAINING MATERIAL

An owner or operator of paper, film, foil, fabric, or vinyl coating operations shall comply with the 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 VOC-containing coating or waste material inside.
- (b) Minimize air circulation around the miscellaneous paper, film, foil, fabric, or vinyl parts coating operations to the extent possible without compromising workplace safety when VOC-containing materials are in use.
- (c) 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 them into a container meeting the requirements

of paragraph (e) of this section. The owner or operator may not use the leaking container until it is repaired or replaced.

- (d) Securely close all containers holding VOC-containing material or waste material when not in use. Store VOC-laden rags and wipes in closed containers when not in use.
- (e) Use closed, nonabsorbent, nonleaking containers to store and dispose of VOC-containing material and waste material, including used rags and wipes.
- (f) Use care when handling and transferring VOC-containing material or waste material to and from containers, enclosed systems, waste receptacles, and other equipment to minimize spills; immediately contain and clean up any spills that occur.
- (g) Use closed and labeled containers or pipes to convey VOC-containing material and waste material from one location to another.
- (h) Minimize VOC emissions from the cleaning of application, storage, mixing, or conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and that all spent solvent is captured in closed containers.

108.7 COMPLIANCE OBLIGATIONS

To demonstrate compliance with the emissions standards and work practices in Section 108, an owner or operator of paper, film, foil, fabric, or vinyl coating operations shall:

- (a) Identify the VOC content of all VOC-containing materials using information provided by the manufacturer.
- (b) Conduct periodic (at least quarterly) inspections to ensure compliance with the requirements of Section 108.6.
- (c) Provide training to newly hired workers on the work practices requirements of Section 108.6.

108.7.1 Compliance When Using an Emission Control System

An owner or operator of paper, film, foil, fabric, or vinyl coating operations using an ECS shall:

- (a) Develop, maintain, and comply with an operations and maintenance (O&M) plan, in accordance with manufacturer recommendations where available, if using an ECS to comply with Section 108.5. This 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 flow rate).
 - (2) Include schedules for inspection, schedules for anticipated on-going 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) Identify the control efficiency of the ECS used to comply with Section 108 through manufacturer design specifications or performance testing under normal or representative operating conditions. 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, unless it is demonstrated that there is negative air pressure flow to the dryer from the surrounding pressroom air.
 - (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 Non-methane 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 108 according to manufacturer specifications and the O&M plan.

- (c) Operate the monitoring devices required by paragraph (b) of this section at all times an ECS operates.

108.8 REGISTRATION REQUIREMENTS

An owner or operator of paper, film, foil, fabric, or vinyl coating operations shall comply with the registration requirements of this section.

- (a) Except as provided in paragraph (d) of this section, an owner or operator of paper, film, foil, fabric, or vinyl coating operations shall comply with the following registration requirements:
- (1) No later than *[insert date 180 days after rule effective date]*, or 45 days after becoming subject to any requirements in Section 108, 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) Type of paper, film, foil, fabric, or vinyl coating operation(s) at the stationary source;
- (D) Projected maximum emissions of VOCs (in tons per calendar year) from paper, film, foil, fabric, or vinyl coating operations at the stationary source;
- (E) Calculations to support the values reported in paragraph (a)(1)(D) of this section;
- (F) Type of ECS used to comply with Section 108, if any;
- (G) Copy of the ECS O&M plan developed to comply with Section 108.7.1, if required;
- (H) 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
- (I) 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 108.2(a).
- (c) Owners or operators may submit a revised registration application with reduced projected maximum emissions from paper, film, foil, fabric, or vinyl coating operations at the stationary source if less than 3.0 tons of VOCs were emitted and reported in each of the previous three consecutive calendar years.
- (d) In lieu of complying with the registration requirements of Section 108.8, but by the deadlines established in paragraph (a)(1) of this section, 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 108 requirements, in accordance with the requirements in Sections 12.1, 12.4, and 12.5.

108.9 NOTIFICATION, RECORDKEEPING, AND REPORTING REQUIREMENTS

An owner or operator of paper, film, foil, fabric, or vinyl coating operations shall comply with the notification, recordkeeping, and reporting requirements of this section. The Control Officer may deny exemption use or applicability status upon finding that a paper, film, foil, fabric, or vinyl coating operation does not meet the eligibility criteria for exemption or applicability, the stationary source has a poor regulatory compliance history, or the RACT emissions standard does not provide comparable emission reductions to Section 108.

108.9.1 Notification Requirements

- (a) Owners or operators using a performance test to determine the control efficiency of an ECS in order to comply with Section 108.5 shall comply with the following requirements and with the compliance dates in Section 108.10:
- (1) Conduct a performance test within 180 days of initial operation of the ECS or [insert date 180 days after rule effective date], whichever is later.
- (2) Submit a performance testing protocol to the Control Officer, in accordance with department guidelines, that contains 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 108.4(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 108.10.

108.9.2 Recordkeeping Requirements

An owner or operator of paper, film, foil, fabric, or vinyl coating operations shall comply with the following recordkeeping requirements:

- (a) Owners or operators required to comply with Section 108 shall, at a minimum:
 - (1) Maintain records to document eligibility for applicability thresholds, or for any exemption claimed under Section 108.4.
 - (2) Retain all records for a period of 5 years from their creation.
 - (3) Make records available and producible on-site 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 paper, film, foil, fabric, or vinyl coating material used in the previous month. The owner or operator may track the actual use of paper, film, foil, fabric, or vinyl coating material or use purchase and inventory records (assuming that all purchases not retained in inventory are used).
 - (5) Maintain a list of paper, film, foil, fabric, or vinyl coating material 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 VOCs; and
 - (C) Product 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 operators using an ECS to comply with Section 108.5 shall:
 - (1) Maintain a record of the monitoring of the key system operating parameters specified in the O&M plan.
 - (2) Record and maintain monitoring data collected to comply with Section 108.7.1(b).
- (c) Owners or operators required to comply with Sections 108.7 and 108.7(b)–(c) shall maintain inspection and training logs.

108.9.3 Reporting Requirements

- (a) Owners or operators subject to Section 108.2(a) shall complete and submit to the Control Officer an annual VOC emissions inventory in the manner and form prescribed.
- (b) This 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 the 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 VOCs (in tons per calendar year) for the previous calendar year from paper, film, foil, fabric, or vinyl 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.

108.10 COMPLIANCE DATES

- (a) Except as provided in paragraphs (c)–(e) of this section, an owner or operator of existing paper, film, foil, fabric, or vinyl coating operations shall begin to comply with the requirements in Section 108 by **insert date 180 days after rule effective date**, or by the date the paper, film, foil, fabric, or vinyl coating operations commence normal operations or meet the applicability criteria in Section 108.2, whichever of the three dates is later.

- (b) An owner or operator of a new paper, film, foil, fabric, or vinyl coating operation shall comply with Section 108 upon commencing normal operations.
- (c) An owner or operator of existing fabric, paper, film, foil, or vinyl coating operations may use paper, film, foil, fabric, or vinyl coating materials from existing inventory that do not meet the requirements of Sections 108.5–108.6 until **[insert date 12 months after rule effective date]**, or until 12 months after first becoming subject to Section 108, whichever is later. Beginning on the compliance date specified in paragraph (a) of this section, the owner or operator shall not purchase paper, film, foil, fabric, or vinyl coating material that does not comply with the VOC content requirements in Section 108.5(b) unless the emissions from such material(s) are controlled in accordance with the requirements of Section 108.5(a), as applicable.
- (d) An owner or operator of existing paper, film, foil, fabric, or vinyl coating operations who elects to comply with Section 108 by installing a new ECS shall comply with Section 108.5(a), as applicable, no later than **[insert date 540 days after rule effective date]**.
- (e) The Control Officer may establish an alternative compliance date for meeting Sections 108.5–108.6 not later than **[insert date 3 years after rule effective date]**, 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, the authority to construct permit, or a revised Part 70 operating permit.

History: