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BILL NO. 4-16-24-1

SUMMARY - An ordinance to create a new Clark County Air Quality Regulation Section 106 to regulate volatile organic compound emission sources that may cause or contribute to elevated ozone levels within the 2015 ozone nonattainment boundary.

ORDINANCE NO. 5127  
(of Clark County, Nevada)

AN ORDINANCE TO CREATE A NEW CLARK COUNTY AIR QUALITY REGULATION SECTION 106, “VOC EMISSIONS CONTROL FOR OFFSET LITHOGRAPHIC, LETTERPRESS, AND FLEXIBLE PACKAGE PRINTING AND OTHER GRAPHIC ARTS OPERATIONS,” TO REGULATE SOURCES THAT MAY CAUSE OR CONTRIBUTE TO VOLATILE ORGANIC COMPOUND EMISSIONS WITHIN THE 2015 OZONE NONATTAINMENT BOUNDARY BY IMPLEMENTING EMISSIONS STANDARDS, WORK PRACTICES, PERMITTING OR REGISTRATION REQUIREMENTS, RECORDKEEPING AND REPORTING REQUIREMENTS; AND PROVIDING FOR OTHER MATTERS PROPERLY RELATED THERETO.

THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF CLARK, STATE OF NEVADA, DOES HEREBY ORDAIN AS FOLLOWS:

**SECTION 1.** Clark County Air Quality Regulation Section 106, “VOC Emissions Control for Offset Lithographic, Letterpress, and Flexible Package Printing and other Graphic Arts Operations” is hereby created as reflected in Exhibit 1, attached hereto.

**SECTION 2.** If any section of this ordinance, or portion thereof, is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such holding shall not invalidate the remaining parts of this ordinance.

**SECTION 3.** All ordinances, parts of ordinances, chapters, sections, subsections, clauses, phrases, or sentences contained in the Clark County Code in conflict herewith are hereby repealed.

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**SECTION 4.** This ordinance shall take effect and be in force from and after its passage and the publication thereof by title only, together with the names of the County Commissioners voting for or against its passage, in a newspaper published in and having a general circulation in Clark County, Nevada, at least once a week for a period of two (2) weeks.

PROPOSED on the 16th day of April, 2024.

PROPOSED BY: Commissioner Tick Segerblom

PASSED on the 7th day of May, 2024.

AYES: Tick Segerblom

William McCurdy II

James B. Gibson

Justin Jones

Marilyn K. Kirkpatrick

Ross Miller

Michael Naft

NAYS: None

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ABSTAINING: None

ABSENT: None

BOARD OF COUNTY COMMISSIONERS  
CLARK COUNTY, NEVADA

By:   
Tick Segerblom (May 13, 2024 09:09 PDT)  
TICK SEGERBLOM, Chair

ATTEST:

  
LYNN GOYA, County Clerk

This ordinance shall be in force and effect from and after the  
21st day of May 2024.

**EXHIBIT 1**

**SECTION 106: VOC EMISSIONS CONTROL FOR OFFSET LITHOGRAPHIC,  
LETTERPRESS, AND FLEXIBLE PACKAGE PRINTING  
AND OTHER GRAPHIC ARTS OPERATIONS**

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## 106.1 PURPOSE

Section 106 implements Control Technique Guidelines Reasonably Available Control Technology (CTG RACT) requirements for graphic arts operations (defined in Section 106.3 to include offset lithographic, letterpress, and flexible package printing operations) as required by Section 182(b)(2)(A) of the Clean Air Act (CAA) under Title 42, Section 7511a of the U.S. Code (42 U.S.C. 7511a).

## 106.2 APPLICABILITY

- (a) Except as provided under Section 106.4, Section 106 is applicable to any owner or operator of offset lithographic printing operations, letterpress printing operations, and/or flexible packaging printing operations with projected maximum emissions of volatile organic compounds (VOC) equal to or greater than 3.0 tons per calendar year 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 106.4, Sections 106.7, 106.8(b)–(c), and 106.9–106.11 are applicable to any owner or operator of offset lithographic printing operations, letterpress printing operations, and/or flexible packaging printing operations with projected maximum emissions of VOC of less than 3.0 tons per calendar year 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 106 does not apply:
- (1) If the stationary source uses less than 500 gallons (1,892 L) or 5,000 pounds (2,268 kg) of graphic arts material per calendar year in graphic arts operations.
  - (2) When graphic arts materials are used in the following operations:

- (A) Circuitry printing, and other associated printing, performed for labeling, logo, or identification purposes on a printed circuit, its substrate, its immediate covering, or its immediate encapsulant by a circuitry printer.
- (B) Coating applications that are considered coating operations but are not performed in association with a printing operation.
- (C) Printing conducted with digital printing equipment.
- (D) Screen printing operations.

### **106.3**      **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 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.

“Alcohol” means a volatile organic compound such as isopropanol, normal-propanol, or ethanol—of alkane structure consisting of fewer than six carbon atoms and having a single OH– (hydroxyl) group and no other non-alkane attachments.

“Alcohol substitute” means a wetting agent used to replace any portion of alcohol in fountain solutions, and usually containing VOC such as glycols and glycol ethers.

“Circuitry printing” means any graphic arts operation that either uses ink(s) with specific electrical properties to print an electrical circuit or prints a circuit pattern that is made into an electrical circuit through further processing.

“Cleaning material” or “cleaning solvent” means any liquid, including an automatic blanket and roller wash system or manual blanket wash and roller wash, used to remove materials from the operating surfaces of a printing press (or any attached parts of a press), from stand-alone press cleaning machines that are integral to the production process, and from the surrounding work area.

“Cover” means a lid or top adequately fitted to shield the contents in the container from air disturbances, such as ventilation fans and general room drafts.

“Digital printing” means a method of printing that does not use a physical master, stencils/screens, cylinders, or plates, but rather an electronic output device to transfer

variable data, in the form of an image, from a computer to a variety of substrates. Digital printing methods include, but are not limited to, inkjet printing, electrophotographic printing, dye sublimation printing, thermal wax printing, and solid ink printing.

“Emissions 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.

“Existing graphic arts operations” means graphic arts operations for which the owner or operator began actual construction or reconstruction before [insert rule effective date], or first constructed and operated on or after [insert rule effective date] and subsequently modified such that the graphic arts operations became subject to Section 106 after the modification.

“Existing inventory” means graphic arts materials that an owner or operator purchased before [insert rule effective date].

“Flexible package printing operation” means a printing process for applying words, designs, or pictures to a substrate that is designed to be used as non-rigid packaging material. Flexible package printing operations typically use flexographic or rotogravure printing operation methods. Shrink-wrap labels or wrappers printing conducted on or in-line with a flexible package printing press are considered flexible package printing operation, while printing of self-adhesive labels is not.

“Flexographic printing operation” means a printing process for applying words, designs, or pictures to a substrate using a technique that transfers the image onto a substrate by applying a liquid ink to an anilox roller engraved with small cells. The ink-filled cells are wiped by a doctor blade, and then the ink is transferred onto a raised pattern of the image carrier that encircles a second roller. The inked image is then transferred to the substrate to produce a printed output.

“Fountain solution” means a mixture of water and other volatile and nonvolatile chemicals and additives applied to a lithographic plate to maintain the hydrophilic properties of the nonimage areas and to keep the nonimage areas free from ink.

“Graphic arts coating” means a material applied after the application of inks to the substrate to enhance or protect all or part of the printed substrate. These coatings include graphic arts varnish, water-based or radiation-cured formulations of resins, solvents, cosolvents, and other additives. These materials are regulated by this rule only when used in association with regulated printing operations.

“Graphic arts material” means any VOC-containing material, such as printing ink, varnish, graphic arts coating, adhesive, solvent, fountain solutions, and cleaning materials (including added thinner or retarder), used in a regulated printing operation.

“Graphic arts operations” means offset lithographic, letterpress, and/or flexible package printing operations, which also includes in-line and off-line coating and laminating processes when these are performed in association with offset lithographic, letterpress, or flexible package printing operations.

“Heatset” means a lithographic web printing process where heat is used to evaporate ink oils from the printing ink that has been applied to the substrate.

“In use” means the active application of graphic arts material by pouring, siphoning, brushing, rolling, padding, wiping, or other methods, or the filling or draining of a container holding graphic arts material.

“Letterpress printing operations” means the application of words, designs, or pictures using a method in which the image area is raised relative to the nonimage area and the paste ink is transferred to the substrate directly from the image surface.

“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 projected maximum emissions or its annual actual emissions of VOC above the projected maximum emissions.

“New graphic arts operations” means graphic arts operations for which the owner or operator began actual construction or reconstruction on or after [insert rule effective date].

“Non-heatset” means a lithographic printing process where the printing inks are set by absorption or oxidation of the ink oils. For the purpose of this rule, use of an infrared heater or printing conducted using radiation-cured inks is considered non-heatset.

“Offset lithographic printing operations” means the application of words, designs, or pictures using a planographic method of printing in which the image and nonimage areas are on the same plane and the ink is transferred from a plate to an intermediary surface, typically a rubber blanket, that in turn transfers the image to the substrate. It includes the application of overprint coatings.

“Printing operation” means an operation that imparts color, design, pattern, alphabet, or numerals onto a substrate. It differs from coating in that its principal intent is to accomplish such visual/spatial outcome(s), rather than other purposes commonly accomplished by using coatings.

“Printing ink” means a fluid or viscous formulation used in graphic arts operations to impress or transfer an image onto a substrate.

“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.



“Rotogravure printing operations” means an intaglio process in which ink is carried in minute, etched, or engraved wells on a roll or cylinder. Images are transferred onto a substrate by applying ink to the etched roll or cylinder, wiping the lands between the cells free of ink with a doctor blade, and rolling the cylinder over the substrate so the surface of the substrate is pressed into the cells, transferring the ink onto the substrate.

“Screen printing” means the application of words, designs, or pictures using a process of passing printing ink through a screen to make an imprint on a substrate. A refined form of stencil is applied to the screen beforehand such that the stencil openings determine the form and dimensions of the imprint.

“Sheetfed” means a lithographic printing process in which individual sheets of substrate are fed to the press sequentially.

“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.

“Vapor pressure” means the pressure exerted at a uniform temperature by the gas of a substance when the gas is in equilibrium with the liquid (or solid) phase of that substance.

“VOC vapor pressure” or “VOC composite partial pressure” means the sum of the partial pressures of the compounds defined as VOC, calculated using (1) ASTM D2879-97 (2007), “Standard Test Method for Vapor Pressure–Temperature Relationship and Initial Decomposition Temperature of Liquids by Isotenoscope”; (2) certified data from a laboratory or manufacturer revealing the exact formulation, or a product data sheet showing the material name and VOC vapor pressure; or (3) the following equation:

$$PP_c = \frac{\sum_{i=1}^n \frac{(W_i)(VP_i)}{MW_i}}{\frac{W_w}{MW_w} + \sum_{c=1}^n \frac{W_c}{MW_c} + \sum_{i=1}^n \frac{W_i}{MW_i}}$$

where:

$W_i$  = weight of the  $i^{\text{th}}$  VOC compound in grams

$W_w$  = weight of water in grams

$W_c$  = weight of exempt compound in grams

$MW_i$  = molecular weight of the  $i^{\text{th}}$  VOC compound in g/g-mol

$MW_w$  = molecular weight of water in g/g-mol

$MW_c$  = molecular weight of exempt compound in g/g-mol

$PP_c$  = VOC composite partial vapor pressure at 20°C in mm Hg

$VP_i$  = vapor pressure of the  $i^{\text{th}}$  VOC compound at 20°C in mm Hg.

“Waste material” means any VOC-containing material designated for disposal, including VOC-laden rags and wipes, waste coatings, waste brushes, waste rollers, waste applicators, waste solvents, and all their residues associated with regulated printing operations.

“Web” means a continuous substrate capable of being rolled at any point during the coating process.

#### **106.4      EXEMPTIONS**

Unless and until the Control Officer objects to an owner or operator’s use of an exemption in accordance with Section 106.10, graphic arts operations that meet the criteria in this section are exempt from one or more requirements of Section 106 if the owner or operator complies with the notification, recordkeeping, and reporting requirements in Section 106.10, as applicable.

- (a) Sections 106.5–106.9 (related to emissions standards, work practice requirements, compliance obligations, and registration requirements) and 106.10.1(a), 106.10.2, and 106.10.3 (related to testing notification, recordkeeping, and reporting requirements) do not apply when VOC emissions from the graphic arts operations are controlled by RACT emissions standard(s) at least as stringent as Section 106 under another SIP-approved applicable section of the AQRs.
- (b) Sections 106.5–106.8 (related to emissions standards, work practice requirements, and compliance obligations) do not apply when:
  - (1) For sheetfed non-heatset offset lithography operations or non-heatset web offset lithography operations: the owner or operator limits the combination of cleaning solvent and fountain solution additive used to less than a total of 855 gallons (3,237 L) in any calendar year.
  - (2) For heatset web offset lithography (uncontrolled): the owner or operator limits the combination of printing ink, cleaning solvent, and fountain solution additives used to less than 6,000 pounds (2,722 kg) in any calendar year.
  - (3) For flexible package printing operations using water-based or ultraviolet-cured inks: the owner or operator limits the combination of water-based or ultraviolet-cured inks, coatings, and adhesives used to less than 24,000 pounds (10,886 kg) in any calendar year.
  - (4) For flexible package printing operations (uncontrolled) using solvent inks: the owner or operator limits the combination of printing ink, coating, adhesives, dilution solvents, and cleaning

solvents used to less than 6,000 pounds (2,722 kg) in any calendar year.

- (c) Section 106.5(a) (related to fountain solution VOC content requirements) does not apply to:
  - (1) Any sheetfed press with a maximum sheet size of 11 by 17 inches or less; or
  - (2) Any press with a total fountain solution reservoir of less than 1 gallon (3.8 L).
- (d) Section 106.5(b) (related to emissions control requirements for offset lithographic and letterpress printing operations) does not apply to:
  - (1) Any heatset web press dryer with an uncontrolled potential to emit VOC of 25 tons or less per calendar year;
  - (2) Use of sheetfed or coldset web inks, sheetfed or coldset web varnishes, waterborne coatings, or radiation (ultra-violet light or electron beam) cured materials,
  - (3) Any heatset web press used for book printing; and
  - (4) Any heatset web press with a maximum web width of 22 inches (56 cm) or less.
- (e) Section 106.5(c) (related to cleaning material requirements) does not apply to the use of any cleaning materials provided the total volume of noncomplying cleaning materials is less than 110 gallons (416 L) per calendar year in offset lithographic and letterpress printing operations.
- (f) Section 106.5(c) (related to cleaning material requirements) does not apply to:
  - (1) Cleaners used on electronic components of a press;
  - (2) Pre-press cleaning operations;
  - (3) Post-press cleaning operations;
  - (4) Cleaning supplies used to clean the floor (other than dried ink) around the press; or
  - (5) Cleaning performed in parts washers or cold cleaners.
- (g) Section 106.7(c) (related to covering containers) does not apply to sheetfed offset and letterpress printing inks that use low volatility ink

oil as the solvent (such that a top layer will dry and form a film over the remainder of the ink in the container).

**106.5 EMISSION STANDARDS FOR OFFSET LITHOGRAPHIC AND LETTERPRESS PRINTING OPERATIONS**

An owner or operator of offset lithographic operations shall limit VOC emissions from graphic arts operations by complying with paragraphs (a), (b), and (c) of this section. An owner or operator of letterpress printing operations shall limit VOC emission from graphic arts operations by complying with paragraphs (b) and (c) of this section.

- (a) Except as provided in Section 106.4, an owner or operator of offset lithographic printing operations shall limit the concentration of alcohol, alcohol substitute, and any other VOC in each fountain solution to the percentages in Table 1.

**Table 1. Maximum VOC Content in Percent by Weight (as Applied) for Fountain Solutions for Offset Lithographic Printing**

<u>Press Type</u>	<u>Maximum VOC Content for:</u>		
	<u>Fountain Solutions Containing Alcohol</u>	<u>Fountain Solutions Containing Alcohol Refrigerated at or Below 60°F (15.5°C)</u>	<u>Fountain Solutions Containing Alcohol Substitutes</u>
<u>Heatset web</u>	<u>1.6%</u>	<u>3.0%</u>	<u>5%</u>
<u>Sheetfed</u>	<u>5%</u>	<u>8.5%</u>	<u>5%</u>
<u>Cold-set web</u>	<u>None</u>	<u>None</u>	<u>5%</u>

- (b) Except as provided in Section 106.4, an owner or operator of heatset offset lithographic or heatset letterpress printing operations shall maintain dryer pressure lower than the press room air pressure such that air flows into the dryer whenever the press is operating and shall meet the emission control requirements in Table 2.

**Table 2. Control Efficiencies Requirements for Heatset Offset Lithographic and Heatset Letterpress Printing Operations**

<u>Emissions Control System Installation Date</u>	<u>Minimum Control Efficiency</u>
<u>Installed prior to [insert rule applicability date]</u>	<u>90% by weight control efficiency for VOC emissions from the dryer exhaust vent or VOC concentration at or below 20 ppm per volume as hexane on a dry basis as measured at the dryer exhaust vent</u>
<u>Installed on or after [insert rule applicability date]</u>	<u>95% by weight control efficiency for VOC emissions from the dryer exhaust vent or VOC concentration at or below 20 ppm per volume as hexane on a dry basis as measured at the dryer exhaust vent</u>

- (c) Except as provided in Section 106.4, an owner or operator of offset lithographic or letterpress printing operations shall reduce VOC

emissions from blanket washing, roller washing, plate cleaners, metering roller cleaners, impression cylinder cleaners, rubber rejuvenators, and other cleaners used for cleaning a press or press parts, or to remove dried ink from areas around the press, by meeting one of the following requirements:

- (1) Use cleaning materials with a VOC composite partial vapor pressure of less than 10 mm Hg at 68°F (20°C); or
- (2) Use cleaning materials containing less than 70% VOC by weight.

**106.6 EMISSION STANDARDS FOR FLEXIBLE PACKAGE PRINTING OPERATIONS**

Except as provided in Section 106.4, an owner or operator of flexible package printing operations shall limit VOC emissions from such operations by complying with paragraph (a) or (b) of this section.

- (a) The owner or operator shall use low VOC content materials, or use low VOC content materials in combination with an ECS that meets one of the following VOC content limits:
  - (1) 1.76 lb VOC/lb of solids (0.8 kg VOC/kg of solids), as applied; or
  - (2) 0.35 lb VOC/lb of graphic arts material (0.16 kg VOC/kg graphic arts material), as applied.
- (b) The owner or operator shall maintain dryer pressure lower than the press room air pressure such that air flows into the dryer at all times when the press is operating and shall meet the ECS requirements in Table 3.

**Table 3. Control Efficiencies Requirements for Rotogravure and Flexographic Printing Operations**

<u>Press and ECS Installation Dates</u>	<u>Minimum Overall Capture and Control Efficiency</u>	<u>Minimum Capture Efficiency</u>	<u>Minimum Control Efficiency</u>
<u>Press first installed prior to March 14, 1995, and now controlled by an add-on ECS installed prior to [insert rule applicability date]</u>	<u>65%</u>	<u>75%</u>	<u>90%</u>
<u>Press installed prior to March 14, 1995, and controlled by an add-on ECS installed on or after [insert rule applicability date]</u>	<u>70%</u>	<u>75%</u>	<u>95%</u>
<u>Press installed on or after March 14, 1995, and controlled by an add-on ECS whose first installation date was prior to [insert rule applicability date]</u>	<u>75%</u>	<u>85%</u>	<u>90%</u>
<u>Press installed on or after March 14, 1995, and controlled by an add-on ECS whose first installation date was on or after [insert rule applicability date]</u>	<u>80%</u>	<u>85%</u>	<u>95%</u>

**106.7**      **WORK PRACTICES REQUIREMENTS FOR USING, STORING, HANDLING, AND DISPOSING OF GRAPHIC ARTS MATERIAL**

An owner or operator of graphic arts 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 graphic arts or waste material 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 into 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) Cover all containers holding graphic arts or waste material when not in use, and store solvent-laden rags and wipes in closed containers when not in use.
- (d) Use closed, nonabsorbent, nonleaking containers to store and dispose of graphic arts and waste material, including used rags and wipes.
- (e) Use care when handling and transferring graphic arts and 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.
- (f) Use closed and labeled containers or pipes to convey graphic arts and waste material from one location to another.

**106.8**      **COMPLIANCE OBLIGATIONS**

To demonstrate compliance with the emissions standards and work practices in Section 106, an owner or operator of graphic arts operations shall:

- (a) Identify the VOC content of all graphic arts materials using information provided by the manufacturer.
- (b) Conduct periodic (at least quarterly) inspections to assure compliance with the requirements of Section 106.7.
- (c) Provide training to newly hired workers on the work practices requirements of Section 106.7.

### **106.8.1 Compliance When Using an Emissions Control System**

An owner or operator of graphic arts 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 106. 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 106 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 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 106 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.

## **106.9      REGISTRATION REQUIREMENTS**

An owner or operator of graphic arts 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 graphic arts 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 106, 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 graphic arts operation(s);
    - (D) Projected maximum emissions of VOC (in tons per calendar year) from graphic arts 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 106, if any;
    - (G) Copy of the ECS operations and maintenance plan developed to comply with Section 106.8.1, if required;
    - (H) 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

- (l) 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 106.2(a).
- (c) Owners or operators may submit a revised registration application with reduced projected maximum emissions from graphic arts 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 106.9, 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 106 requirements in accordance with the requirements in Sections 12.1, 12.4, and 12.5.

## **106.10 NOTIFICATION, RECORDKEEPING, AND REPORTING REQUIREMENTS**

An owner or operator of graphic arts 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 graphic arts operation does not meet the eligibility criteria for the exemption(s), the stationary source has a poor regulatory compliance history, or the RACT emissions standard does not provide comparable emission reductions to Section 106.

### **106.10.1 Notification Requirements**

- (a) Owners or operators using a performance test to determine the control efficiency of an ECS to comply with Section 106 shall comply with the following requirements and with the compliance dates in Section 106.11:
  - (1) Conduct a performance test within 180 days of initial operation of the ECS or by [insert date 180 days after rule effective date], whichever is later, or provide documentation of a successfully completed stack test performed within five years prior to [rule effective date].

- (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 106.4(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 106.11.

### **106.10.2 Recordkeeping Requirements**

An owner or operator of graphic arts operations shall comply with the following recordkeeping requirements:

- (a) Owners or operators required to comply with Section 106 shall, at a minimum:
  - (1) Maintain records to document eligibility for applicability thresholds or for any exemption claimed under Section 106.4.
  - (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 graphic arts material used in the previous month. The owner or operator may track the actual use of graphic arts material or use purchase and inventory records (assuming that all purchases not retained in inventory are used).
  - (5) Maintain a list of graphic arts material used that includes, at a minimum:
    - (A) Material name and manufacturer;
    - (B) VOC content of each graphic arts material, listed as lb/gal or g/L of VOC;

- (C) Product data sheet or technical data sheet with specific mixing instructions and the VOC content, as applied, of VOC-containing material requiring dilution; and
- (D) VOC composite vapor pressure at 68°F (20°C).
- (6) Maintain a record of calendar year emission calculations.
- (b) Owners or operators using noncompliant cleaning materials, as allowed under Section 106.4(e), 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 cleaning materials used.
- (c) Owners or operators using an ECS to comply with Section 106 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 106.8.1(b).
- (d) Owners or operators required to comply with Sections 106.7 and 106.7(b)–(c) shall maintain inspection and training logs.
- (e) Owners or operators relying on an exemption in Section 106.4(b) shall keep a separate list of the amount of graphic arts materials used to demonstrate compliance with the exemption, including, at a minimum:
  - (1) Material name and manufacturer; and
  - (2) Monthly and annual total gallons (liters) or pounds (kg) of the applicable graphic arts materials used.
- (f) Owners or operators relying on the exemption in Section 106.4(d)(1) shall record the potential to emit of each dryer before consideration of the emissions control efficiency of the ECS.

### **106.10.3 Reporting Requirements**

- (a) Owners or operators subject to Section 106.2(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 graphic arts 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.

#### **106.11 COMPLIANCE DATES**

- (a) Except as provided in paragraphs (c)–(e) of this section, an owner or operator of existing graphic arts operations shall begin to comply with the requirements in Section 106 by [insert date 180 days after rule effective date], or by the date the graphic arts operations commence normal operations or meet the applicability criteria in Section 106.2, whichever of the three dates is later.
- (b) An owner or operator of a new graphic arts operation shall comply with Section 106 upon commencing normal operations.
- (c) An owner or operator of existing graphic arts operations may use graphic arts materials from existing inventory that do not meet the requirements of Sections 106.5–106.6 until [insert date 12 months after effective date of rule] or 12 months after first becoming subject to Section 106, whichever is later. Beginning on the compliance date specified in paragraph (a) of this section, the owner or operator shall not purchase graphic arts material that does not comply with VOC content requirements in Section 106 unless the emissions from such material(s) are controlled in accordance with the requirements of Sections 106.5(b) and/or 106.6, as applicable.
- (d) An owner or operator of existing graphic arts operations who elects to comply with Section 106 by installing a new ECS shall comply with Sections 106.5(b) and/or 106.6, 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 106.5–106.6 not later than [insert date three years after the effective date of the rule], 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: Adopted Month DD, YYYY

# TECHNICAL SUPPORT DOCUMENT FOR CTG RACT AIR QUALITY REGULATION FOR THE 2015 OZONE NAAQS STATE IMPLEMENTATION PLAN

## **Background**

On October 26, 2015, the U.S. Environmental Protection Agency (EPA) revised the primary and secondary ozone 8-hour National Ambient Air Quality Standard (NAAQS) from 0.075 parts per million (ppm) to 0.070 ppm. Within two years after setting or revising a NAAQS, EPA must designate areas as meeting (attainment) or not meeting (nonattainment) the standard. EPA's final designations are based on the most recent three years of air quality monitoring data, recommendations from the state, and additional technical information. If an area is not meeting the standard, the state is required to prepare a state implementation plan (SIP) that identifies how the area will attain or maintain the NAAQS to comply with the provisions of the Clean Air Act. The SIP includes regulatory and non-regulatory control measures for reaching attainment by a specific deadline.

On June 4, 2018, EPA designated Hydrographic Area (HA) 212 (Las Vegas Valley) a marginal nonattainment area for the 2015 ozone NAAQS, effective August 3, 2018 (83 FR 25776), and required the area to attain the standard by August 3, 2021. To achieve attainment by this date, the Department of Environment and Sustainability, Division of Air Quality (DAQ) was required to show that an HA 212 ozone design value based on 2018–2020 air quality data was equal to or less than 0.070 ppm. In 2021, DAQ submitted 17 exceptional event demonstrations encompassing 28 ozone exceedances in 2018 and 2020 that it maintained were caused by impacts from wildfire smoke or stratospheric intrusions, requesting that EPA exclude the associated air quality data from the 2018–2020 design value calculation. On July 22, 2022, EPA proposed not to approve those demonstrations and to find that HA 212 failed to meet its attainment date based on a 2018–2020 design value of 0.074 ppm (87 FR 43764). On January 5, 2023, EPA issued a final rule reclassifying HA 212 as a moderate nonattainment area for the 2015 ozone NAAQS (88 FR 775) and requiring the area to achieve attainment by August 3, 2024.

## **Requirements for Stationary Sources with Existing Air Quality Permit**

Sources with an existing stationary source permit will be required to evaluate whether the new regulation is applicable.

If the new regulation applies and the existing stationary source permit includes all the applicable requirements and standards, sources will be required to notify DAQ that they are in compliance with the regulation.

If the new regulation applies and the existing stationary source permit does not include all the applicable requirements, sources will be required to revise their permit in accordance with the requirements in Sections 12.1, 12.4, and 12.5, to include all the applicable requirements and standards. Compliance with the emissions standards, controls, monitoring, recordkeeping, and reporting requirements in the CTG RACT regulation will be satisfied by complying with the stationary source permit until the Control Officer approves or denies the permit revision.

## **New Air Quality Regulation: Section 106**

DAQ has identified seven volatile organic compound (VOC)-related area source categories that contribute to the formation of ground-level ozone in HA 212. Sections 101–105 and 107 were adopted by the Board of County Commissioners at a public hearing on March 19, 2024. DAQ is proposing the seventh new rule for Control Techniques Guidelines (CTG) Reasonably Available Control Technology (RACT) as part of its 2015 ozone NAAQS SIP:

- Section 106, “VOC Emissions Control for Offset Lithographic, Letterpress, and Flexible Package Printing and other Graphic Arts Operations”

### **Section 106, “VOC Emissions Control for Offset Lithographic, Letterpress, and Flexible Package Printing and other Graphic Arts Operations”**

Section 106 implements CTG RACT requirements on any owner or operator of offset lithographic printing operations, letterpress printing operations, and/or flexible packaging printing operations with projected maximum emissions of VOC equal to or greater than 3.0 tons per calendar year when the stationary source is located in HA 212 or in a designated nonattainment area classified as moderate or higher ozone nonattainment on or after January 5, 2023. Applicable sources will be required to comply with work practices, compliance obligations, registration, notification, recordkeeping, and reporting requirements, and one of the following emissions standards:

- (a) For offset lithographic and letterpress printing operations:
  - (1) Limit the concentration of alcohol, alcohol substitute, and any other VOC in each fountain solution as identified for offset lithographic printing operations;
  - (2) Maintain dryer pressure, as identified, of heatset offset lithographic and heatset letterpress printing operations; and
  - (3) Reduce VOC emissions from identified washing and cleaners, but still meet the identified requirements at offset lithographic or letterpress printing operations.
- (b) For flexible package printing operations:
  - (1) Use low-VOC content materials, or use low VOC-content materials in combination with an emissions control system (ECS) to meet the identified VOC content limits; or
  - (2) Maintain dryer pressure and meet the ECS requirements identified.

Any stationary source with projected maximum emissions of VOC of less than 3.0 tons per calendar year in a moderate or higher ozone nonattainment area is required to comply with the regulation’s work practice requirements for storing, handling, and disposing of graphic arts and waste materials. Owners or operators must also comply with recordkeeping and registration requirements.

Section 106 is not applicable to any stationary source using less than 500 gallons (1,892 L) or 5,000 pounds (2,268 kg) of graphic arts materials per calendar year in graphic arts operations or

certain other listed activities, or that is located in a hydrographic area designated as being in attainment or marginal nonattainment for ozone.

## **General Requirements**

As part of the CTG RACT process, DAQ undertook an extensive effort to identify potentially affected businesses. CTG RACT establishes the applicability of a rule and provides appropriate definitions; exemptions for the smallest emitters; emission standards; requirements for work practices, permitting or registration, notification, recordkeeping, and reporting; and applicable compliance dates.

### **Permitting**

A stationary source that is regulated by a minor source permit, an authority to construct permit, or a Part 70 operating permit and is subject to a CTG RACT regulation shall apply for a permit revision to incorporate applicable CTG RACT requirements in accordance with the requirements in Sections 12.1, 12.4, and 12.5.

If a source holds a Part 70 permit issued under Section 12.5, it may elect to revise that permit to incorporate the VOC CTG RACT requirements rather than obtain an authority to construct (Section 12.4) permit separately, then revise the Part 70 permit at a later date.

### **Using Projected Maximum Emissions**

As a general policy, EPA allows state and local air pollution control agencies to exclude sources emitting less than approximately 15 lb/day (or up to 3 tons of VOC a year) from CTG RACT requirements. EPA has allowed states to interpret this general applicability threshold on either an actual emission or potential to emit (PTE) basis, and has approved both types of rules for incorporation into SIPs.

A PTE applicability threshold is generally considered more stringent than actual emissions, and it has the advantage of creating greater stability in CTG RACT applicability: once a source is subject to the rule, it remains subject unless it undertakes an emissions reduction project. With an actuals-based approach, a source may move in and out of applicability, depending on emissions over the previous year. To minimize disruptions, many states with an actuals-based applicability threshold also adopt a once-in-always-in applicability policy: once a stationary source emits above the threshold, it is subject to the CTG RACT requirement regardless of future emissions.

DAQ prefers the stability of the PTE applicability approach, but recognizes that many sources never have emissions close to a unit's PTE. For these sources, applying the CTG RACT requirements raises concerns over the cost-effectiveness of emissions controls. DAQ favors an actuals-based approach from a cost-effectiveness perspective, but disfavors the increased enforcement burden that accompanies the yearly change in affected sources and the discouragement of pollution prevention innovations that accompanies a once-in-always-in approach.

To reconcile the advantages and disadvantages of the actual- and PTE-based approaches, DAQ opted to base applicability on "projected maximum emissions." Under this approach, potentially affected sources must estimate the highest level at which an operation will emit VOC in a future year. To develop this estimate, DAQ recommends that stationary sources look at previous



demand and market projections to reasonably estimate what the stationary source will emit in the foreseeable future.

This value could approximate PTE for sources operating at or near capacity, but will likely be lower than PTE for sources operating below maximum capacity. DAQ believes that using projected maximum emissions will assure that CTG RACT requirements are applied cost-effectively to sources that anticipate emissions exceeding EPA's general applicability threshold.

DAQ believes this approach maximizes incentives to reduce emissions. It also assures that CTG RACT is implemented in a cost-effective manner while maintaining a system as stringent in practice as a purely actuals- or PTE-based approach.

### **Work Practice Requirements**

DAQ developed a standard set of work practice requirements for handling VOC-containing material based on recommendations in various CTGs, making minor adjustments to basic requirements as appropriate for the specific application. DAQ included operator training and periodic inspection requirements to assure compliance.

In most cases, EPA's CTG RACT presumption includes only a recommendation for a level of emissions reductions. The CTGs do not include requirements for monitoring, recordkeeping, or reporting to assure compliance with the emissions reduction recommendations; state and local air pollution control agencies add these requirements to assure enforceability and enhance rule effectiveness. With respect to work practice requirements, DAQ believes that operator training combined with periodic inspections is the most reasonable, cost-effective means for assuring that stationary sources comply with work practice requirements. Should a stationary source already be subject to these requirements—for example, under Occupational Safety and Health Agency (OSHA) rules—it is not DAQ's intent to create a duplicative requirement, so stationary sources will be considered compliant by showing compliance with the OSHA standard.

### **Recordkeeping**

The new rule requires an owner or operator to generate and maintain documentation to demonstrate compliance with the rule: for example, owners or operators may be required to calculate and document (e.g., in a log report) monthly or annual use of a material and translate that use into tons per year of VOC emissions. Owners or operators may acquire and maintain vendor-provided data and calculations to satisfy these requirements.

### **Exemptions**

Section 106 includes an exemption for sources using less than 500 gallons (1,892 L) or 5,000 pounds (2,268 kg) of graphic arts materials. Since 500 gallons per year of material (using a conservative value of 10 lb of VOC per gallon) equals 2.5 tons per year of VOC emissions, as does 5,000 pounds of material, both are well below the trigger of 3 tons per year. A throughput-based exemption threshold simplifies the determination analysis required by small businesses.

### **Emissions Standards**

- (a) DAQ requires owners and operators to limit or reduce VOC-emitting operations by using VOC-compliant graphic arts materials and dryer pressures that meet emissions standards.

- (b) Operators may be required to reduce VOC emissions from graphic arts operations using an ECS to meet the CTG RACT emissions standards. DAQ established a control efficiency standard of 65% through 95% based on EPA's CTG RACT presumptions.

### **Compliance Obligations**

Sources must identify the VOC content of all graphic arts materials using information provided by the manufacturer, conduct periodic inspections to assure compliance with work practices, and train newly hired employees on their work practices.

### **Compliance Dates**

DAQ proposes different compliance dates for new and existing sources. New sources must comply upon commencing normal operations. Existing sources are generally provided six months from the effective date of the regulation to comply. If a source is using low VOC material to comply, the regulation provides up to one year for an owner or operator to use material in its existing inventory, but it may not purchase new, noncompliant material after the applicable compliance date in the regulation. For existing sources, which must design, purchase, and install air pollution control equipment, the regulation allows up to 18 months to comply.

Although these are reasonable compliance dates that should be achievable for most affected sources, DAQ recognizes special circumstances (supplier shortages, worker shortages, etc.) may make meeting these compliance dates infeasible. If an existing stationary source documents why it cannot achieve compliance by the date specified in the regulation and commits to an alternative date that achieves compliance as expeditiously as practicable, DAQ may extend the compliance date up to three years from the regulation's effective date through application for and issuance of a revised stationary source permit. However, DAQ expects such requests to be rare.

*END*

## **Public Comment and Participation**

DAQ conducted workshops on February 13, 2023, and July 10, 2023, soliciting information requests and providing the public with opportunities to review drafts of the new regulation. DAQ then produced a final draft that met the regulatory requirements while also taking into consideration the information and comments provided by the public. The final draft was posted for a public comment period that began on February 29, 2024, and ended on March 13, 2024.

### **Comment Received During Public Comment Period (2/29/2024 to 3/13/2024)**

Comment Received: Letter dated 3/12/2024  
Commentor: Gary Jones, PRINTING United Alliance  
[gjones@printing.org](mailto:gjones@printing.org)  
Phone: 703-359-1363

PRINTING United Alliance would like to express its appreciation for the opportunity to provide comments on the draft regulation for controlling VOC emissions from graphic arts operations, Section 106: VOC Emissions Control for Offset Lithographic, Letterpress, and Flexible Packaging Printing and Other Graphic Arts Operations. The proposed regulation reflects several of the key provisions that were discussed during the development of the final draft.

As background, PRINTING United Alliance (Alliance) represents the interests of facilities engaged in producing a wide variety of products through screen printing, digital imaging, flexographic, and lithographic print processes. The print industry is comprised primarily of small businesses, with approximately 95 percent of the printing industry falling under the definition of a small business as described by the Small Business Administration.

Overall, the Alliance support use of the U.S. Environmental Protection Agency's (USEPA) 2006 Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing, the 2006 Control Techniques Guidelines for Flexible Package Printing, and several other state regulations for graphic arts operations as the basis for developing reasonably available control technology (RACT) requirements for the printing industry. The Alliance, however, is concerned with several requirements the draft regulation such as some exemptions that were not included and the overall very stringent recordkeeping, reporting, and registration requirements for very small businesses.

Specifically, the Alliance has the identified following concerns regarding the draft regulation.

#### **Applicability Threshold**

Provision 106.2 establishes geographic, printing process, and emissions based applicability criteria that facilities must meet in order to be subject to the rule's requirements.

1. The thresholds in 106.2 (a) and (b) for offset lithographic printing operations, letterpress printing operations, and/or flexible packaging printing operations set a threshold with projected maximum emissions of volatile organic compounds (VOC) equal to or greater than 3.0 tons per calendar year. These thresholds need to be revised by deleting the word "maximum" and replacing it with "actual" so that the applicability threshold is consistent with those contained in both CTGs for the respective process categories.

When EPA established the applicability thresholds in both the CTGs, they carefully considered the costs associated with compliance and determined the costs of

compliance were excessive for printing operations with VOC emission below 3 tons per year. Using a threshold based on maximum emissions will unnecessarily require printing operations to become subject to the requirements in the rule causing them to incur compliance costs that could threaten their viability. This is due to how maximum emissions are determined in printing operations. This issue is acknowledged by EPA in its [Technical Guidance for Title V Permitting of Printing Facilities](#) and is the reason why EPA set the thresholds in the CTGs using actual emissions. Actual emissions are much easier for a printing operation to determine as they can use material purchase records.

2. When EPA established the applicability thresholds in both the CTGs, they carefully considered the costs associated with [sic].

## Definitions

1. Provision 106.3 contains definitions that are applicable to the requirements in the rule.
  - (a) Please revise the definition of “Flexographic printing operation” by deleting the word “smoothed” with “wiped” in the sentence “The ink-filled cells are smoothed wiped by a doctor blade, ....”
  - (b) Please delete the term “Projected maximum emissions” as the applicability statements in Section 106.2 need to be revised to reflect the threshold should be based on actual emissions.
  - (c) Please revise the definition of “screen printing” by deleting the statement “(a taut web or fabric)” as a web of screen mesh is not used in the process. Screen mesh can be made from a variety of materials and is stretched across a frame where the material is adhered using an adhesive.

## Exemptions

1. Provision 106.4(e) is written as an exemption from the cleaning solution requirements in Section 106.5 (c). However, the intent of the 110-gallon limit was to allow a facility to use up to 110 gallons per year of cleaning solutions that do not meet either the 70% by weight VOC content or vapor pressure limit. Therefore, this exemption should be deleted and 106.5(c) should be revised to read as follows:
  - (c) Except as provided in Section 106.4, an owner or operator of offset lithographic or letterpress printing operations shall reduce VOC emissions from blanket washing, roller washing, plate cleaners, metering roller cleaners, impression cylinder cleaners, rubber rejuvenators, and other cleaners used for cleaning a press or press parts, or to remove dried ink from areas around the press, by meeting one of the following requirements:
    - (1) Use cleaning materials with a VOC composite partial vapor pressure of less than 10 mm Hg at 68°F (20°C); or
    - (2) Use cleaning materials containing less than 70% VOC by weight.

- (3) The use of cleaning solutions that do not meet Section 106.5 (c) (1) or (c) (2) of this rule is permitted provided that the quantity used does not exceed one hundred ten gallons per calendar year.
- 2. Please add the following exemptions to be consistent with the CTG for Offset Lithographic Printing and Letterpress Printing:
  - (h) The following operations are exempt from the fountain solution requirements as contained in Section 106.5 (a) of this rule:
    - (1) Any sheet-fed press with a maximum sheet size eleven by seventeen inches or smaller.
    - (2) Any press with a total fountain solution reservoir capacity of less than one gallon.
  - (i) The following operations are exempt from the requirement to install add-on controls as contained in Section 106.5 (b) of this rule:
    - (1) Any heatset web press with a maximum web width of 22.0 inches or less.
    - (2) Any heatset web press with potential VOC emissions from ink oil less than or equal to twenty-five tons per year before the application of controls.
    - (3) Any heatset web press used for book printing.

### **Emission Standards for Offset Lithographic and Letterpress Printing Operations**

- 1. Provision 106.5 (b) requires that certain offset lithographic and letterpress printing operations meet certain control requirements as specified in Table 2. This section needs to be clarified by stating it only applies to heatset web offset lithographic or heatset letterpress printing presses at covered printing operations. The current language is silent and the section could be interpreted as applying to nonheat sheetfed, nonheatset web, or sheetfed letterpress printing operations.
- 2. The required control efficiencies in Table 2 need to be clarified by inserting an “or” statement between the second and third entry to the table. The current presentation of the control requirements in Table 2 can easily be interpreted that both a control efficiency and the outlet concentration requirement need to be met to demonstrate compliance. This is not the intent of how these requirements were presented in the CTG for Offset Lithographic Printing or Letterpress Printing.

The “VOC concentration at or below 20 ppm per volume as hexane on a dry basis as measured at the dryer exhaust vent.” requirement is an alternative to the 90 or 95% by weight control efficiencies identified in the previous two entries. In the case of an integrated dryer and oxidizer, which is not uncommon for heatset presses, it is the only compliance demonstration that can be used by these presses.

## Compliance Obligations

1. Provision 106.8 (b) requires periodic (at least quarterly) inspections to assure compliance with the requirements of Section 106.7. Please delete this requirement and replace it with one that requires signs to be hung in the workplace reminding employees to ensure that the requirements in Section 106.7 be met. This requirement imposes an administrative burden on very small businesses that is not necessary and incurs significant resources. While the Provisions in Section 106.10.2, Recordkeeping, do not explicitly state records for the period inspections are to be maintained, this type of recordkeeping is clearly indicated as the only way a regulated printing operation would be able to demonstrate compliance is through documentation. Many printing operations have less than 20 employees with no full time Environmental, Health, and Safety professionals. Therefore, this inspection requirement will require them to expend resources and maintain records that are not necessary.

## Compliance When Using an Emissions Control System

1. Provision 106.8.1 identifies what EPA test methods should be used for compliance testing. It does not address two critical components associated with compliance testing and those are the conditions of testing and demonstration of negative air pressure to the press dryer. In the CTG's and Technical Support Document for Title V permitting of printing operations, EPA has stated that compliance testing is to occur under "normal representative conditions" as maximum conditions are neither practical or obtainable for printing presses.

EPA also stated that capture testing is not required for heatset web offset printing presses when it can be demonstrated that there is negative air pressure flow to the dryer from the surrounding pressroom air. This can be demonstrated either physically by using thin strips of paper or foil, smoke generator, or a magnehelic gauge, which are commonly installed on press dryers.

## Registration Requirements

1. Provision 106.9 requires all printing operations that are not excluded under Section 106.4 to submit a registration. This provision needs to be deleted as it poses an unnecessary reporting burden on very small sources of emissions. Many printing operations have less than 20 employees with no full time Environmental, Health, and Safety professionals. Therefore, this reporting requirement will require them to hire an outside consultant at significant cost to meet this requirement.

## Notification, Recordkeeping, and Reporting Requirements

1. The provision 106.10.1 (a) (1) requires an affected source to conduct a compliance stack test 180 days after installation or 180 days after the final date of the rule. This provision needs to be revised to exclude any covered source from this requirement if the source had conducted a stack test at least 5 years prior to the effective date. If a source has already successfully completed a stack test and demonstrated compliance with the emission limits, then there is no need for a source to undertake additional testing. Stack tests can be very expensive, and retesting based on a new rule would be duplicative, unnecessary, and require a source to expend resources that are not productive.

2. The provisions in 106.10.3 Reporting Requirements need to be deleted as they pose an unnecessary reporting burden on very small sources of emissions. Many printing operations have less than 20 employees with no full time Environmental, Health, and Safety professionals. Therefore, this reporting requirement will require them to hire an outside consultant at significant cost to meet this requirement. If emission reporting is required, it should be consistent with the requirements for Nevada Administrative Code, NAC 445B.037 threshold of 20 tons of VOC per year.

### **Recordkeeping Requirements**

1. Provision 106.10.2 (4) requires the collection of records for VOC content determination monthly for covered sources. This provision needs to be revised so that it reflects that the records need to be kept on an annual basis as there is no requirement in the proposed regulation that requires a monthly compliance demonstration. Only large printing operations, those with emissions greater than 10 tons per year and not for smaller sources. Many printing operations have less than 20 employees with no full time Environmental, Health, and Safety professionals. Therefore, this recordkeeping requirement will require them to hire an outside consultant at significant cost to meet this requirement.
2. Provision 106.10.2 (5)(a) requires the recording of information such as material name, manufacturer, VOC content for each material used. This provision needs to be revised to allow for the grouping of similar materials into a class and using the highest VOC content to represent that class. Some printing operations can use up to 100 different inks in small quantities as little as one pound at a time and the resources necessary to track these very small quantities of materials and record all the identified information is extremely resource intensive. Likewise, printing operations can use many different coatings and adhesives and the ability to group these materials into a class using the highest VOC content to represent the class.

Thank you again for allowing us the opportunity to review and provide comments on draft Section 106: VOC Emissions Control for Offset Lithographic, Letterpress, and Flexible Packaging Printing and Other Graphic Arts Operations. It is hoped that these comments provide additional insight into the differences between the proposed rule and USEPA's CTG documents, and that our suggestions help establish a mutually beneficial set of conditions that are both technically and economically feasible.

We would be willing to meet with representatives from the Division of Air Quality to discuss our concerns with the current draft of the proposed regulation. Please feel free to contact Gary Jones, Vice President of Environmental, Health and Safety Affairs, at (703) 359-1363 with any questions you may have or to arrange a meeting time that is convenient for you and the appropriate staff involved in the development of the regulation.

### **DAQ Summary of Comments and Responses**

Response provided by: Jennifer Lipkin, DAQ Senior Air Quality Specialist

**Applicability 1 and 2, SUMMARY OF COMMENT(S):** The commenter suggests deleting the word "maximum" and replacing it with "actual" in the defined term "projected maximum emissions." EPA's consideration of costs associated with compliance to applicable sources is discussed.

RESPONSE: Removing “maximum” and replacing it with “actual” will conflict with DAQ’s methodology for calculating applicability emissions. The “Using Projected Maximum Emissions” section of this document explains the methodology DAQ used in creating applicability based on maximum emissions.

**Definitions 1.a, SUMMARY OF COMMENT(S):** The commenter suggests updating the definition of “flexographic printing operation” by deleting the word “smoothed” and replacing it with “wiped.”

RESPONSE: DAQ agrees with the recommendation. The definition of “flexographic printing operation” is revised as suggested.

**Definitions 1.b, SUMMARY OF COMMENT(S):** The commenter suggests deleting the definition of “projected maximum emissions” and basing the applicability on actual emissions.

RESPONSE: DAQ does not intend to change the methodology for calculating applicability emissions.

**Definitions 1.c, SUMMARY OF COMMENT(S):** The commenter suggests updating the definition of “screen printing” by deleting the clause “(a taut web or fabric).”

RESPONSE: DAQ agrees with the recommendation. The definition of “screen printing” is revised as suggested.

**Exemptions 1, SUMMARY OF COMMENT(S):** The commenter identifies that Section 106.4(e) exempts sources that use a total of 110 gallons of cleaning materials from Section 106.5(c). The intent of the 110-gallon exemption was to allow applicable sources to use up to 110 gallons of noncompliant material. The commenter provides example language for a section update.

RESPONSE: DAQ agrees that the intent of the 110-gallon exemption is to allow a source to use up to 110 gallons of noncompliant material. This exemption is identified in EPA’s “Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing” (EPA 453/R-06-00, dtd. 9/2006). DAQ revised Section 106.4(c) to state, “Section 106.5(c) (related to cleaning material requirements) does not apply to the use of any cleaning materials provided the total volume of noncomplying cleaning materials is less than 110 gallons (416 L) per calendar year in offset lithographic and letterpress printing operations.”

**Exemptions, 2(h) SUMMARY OF COMMENT(S):** The commenter suggests an additional exemption regarding fountain solution requirements for sheet-fed presses with a maximum sheet size of 11 by 17 inches or smaller and any press with a total fountain solution reservoir capacity of less than one gallon.

RESPONSE: The exemption identified is already included under Section 106.4(c).

**Exemptions, 2(i) SUMMARY OF COMMENT(S):** The commenter suggests an additional exemption regarding the requirement to install add-on controls under identified scenarios.

RESPONSE: The exemption identified is already included under Section 106.4(d).

**Emission Standards for Offset Lithographic and Letterpress Printing Operations 1, SUMMARY OF COMMENT(S):** The commenter suggests adding “heatset” in the operations descriptions in Section 106.5(b). The section only applies to heatset web offset lithographic or



heatset letterpress printing presses, but could be interpreted as applying to non-heatset operations without the specific descriptor.

RESPONSE: DAQ agrees with the recommendation and added the “heatset” descriptor to the section language and the title of Table 2.

**Emission Standards for Offset Lithographic and Letterpress Printing Operations 2, SUMMARY OF COMMENT(S):** The commenter suggests clarifying Table 2. As written, all operations must comply with the 20 ppm or less requirement. This requirement is supposed to be an alternative to, not in addition to, the requirement of a percent minimum control efficiency from the dryer vent exhaust determined by the date of installation.

RESPONSE: DAQ agrees with the recommendation and updated Table 2 to clarify that sources have two options for compliance demonstration.

**Compliance Obligations 1, SUMMARY OF COMMENT(S):** The commenter suggests deleting Section 106.8(b), which requires periodic (at least quarterly) inspections to assure compliance with work practices and includes a recordkeeping requirement when inspections are completed. The commenter states this administrative burden is unnecessary and uses significant resources for very small businesses, and requests a change to replace the inspections and associated recordkeeping with a requirement to post signage listing the work practices.

RESPONSE: DAQ does not agree that posting signage is sufficient to assure compliance. DAQ does not consider quarterly inspections and the associated recordkeeping overly burdensome.

**Compliance When Using an Emissions Control System 1, SUMMARY OF COMMENT(S):** The commenter suggests clarifications to Section 106.8.1(a)(5) regarding determining the control efficiency of emissions control systems with a performance test. EPA states that compliance testing is to occur under “normal representative conditions,” since maximum conditions are neither practical nor obtainable for printing presses. EPA does not require capture testing for heatset web offset printing presses when it can be demonstrated that there is negative air pressure flow to the dryer from the surrounding pressroom air.

RESPONSE: DAQ agrees with the recommendations. The EPA memo “Technical Guidance for Title V Permitting of Printing Facilities,” dated 1/28/2005, includes the “under normal representative conditions” language. DAQ updated Section 106.8.1(a)(5) to allow “performance testing under normal or representative operating conditions.” DAQ updated Section 106.8.1(a)(5)(C), regarding reference materials that may assist in determining the control efficiency, to include the clarification that Method 204 is applicable “unless it is demonstrated that there is negative air pressure flow to the dryer from the surrounding pressroom air.”

**Registration Requirements 1, SUMMARY OF COMMENT(S):** The commenter suggests deleting Section 106.9, which requires all printing operations that are not excluded under Section 106.4 to submit a registration. The commenter maintains this requirement poses an unnecessary reporting burden on very small sources.

RESPONSE: Section 106.2(c) states that sources using less than 500 gallons or 5,000 pounds of graphic arts materials, or using graphic arts materials in identified operations, are exempt from Section 106 and therefore not required to submit a registration. Only

sources subject to Section 106.2(a) (projected maximum emissions equal to or greater than 3.0 tons of VOC per calendar year) are required to submit annual reports. Maricopa County Rule 200, Section 303 requires a non-Title V permit for sources with a potential to emit greater than or equal to 0.5 tons of VOC per year; therefore, DAQ does not consider the requirement to report overly burdensome for sources where projected maximum emissions are greater than or equal to 3.0 tons of VOC per year.

**Notification, Recordkeeping, and Reporting Requirements 1, SUMMARY OF COMMENT(S):** The commenter states that Section 106.10.1(a)(1) requires affected sources to conduct a compliance stack test of an emissions control system 180 days after installation or 180 days after the final effective date of the rule. The commenter suggests that sources be allowed to demonstrate compliance with this requirement if they have successfully completed a stack test within at least 5 years prior to applicability.

RESPONSE: DAQ agrees with the recommendation and updated Section 106.10.1(a)(1) to state that sources must: “Conduct a performance test within 180 days of initial operation of the ECS or by *[insert date 180 days after rule effective date]*, whichever is later, or provide documentation of a successfully completed stack test performed within five years prior to *[rule effective date]*.”

**Notification, Recordkeeping, and Reporting Requirements 2, SUMMARY OF COMMENT(S):** The commenter suggests deleting Section 106.10.3, which requires sources subject to Section 106.2(a) to submit reports. The commenter feels this imposes an unnecessary reporting burden on very small sources, citing the requirements of Nevada Administrative Code (NAC) 445B.037, which uses a reporting threshold of 20 tons of VOC per year.

RESPONSE: Section 106.2(c) states that sources using less than 500 gallons or 5,000 pounds of graphic arts materials, or using graphic arts materials in identified operations, are exempt from Section 106 and thus not required to submit annual reports. Section 106.10.3 is not applicable to sources with projected maximum emissions of less than 3.0 tons of VOC per calendar year, thus they are not required to submit annual reports. Only sources subject to Section 106.2(a) (i.e., with projected maximum emissions equal to or greater than 3.0 tons of VOC per calendar year) are required to submit annual reports. Maricopa County Rule 200, Section 303 requires a non-Title V permit for sources with a potential to emit greater than or equal to 0.5 tons of VOC per year; therefore, DAQ does not consider the requirement to report overly burdensome for sources where projected maximum emissions are greater than or equal to 3.0 tons of VOC per year. The NAC reference applies to sources issued air quality permits by the Nevada Division of Environmental Protection, not DAQ. The Las Vegas Valley, located within Clark County, is designated a moderate nonattainment area for ozone; therefore, it has more stringent requirements than areas in attainment.

**Recordkeeping Requirements 1, SUMMARY OF COMMENT(S):** The commenter suggests the monthly recordkeeping requirement in Section 106.10.2[(a)](4) be changed to an annual requirement. The commenter maintains only large printing operations with emissions greater than 10 tons per year require monthly VOC content determinations.

RESPONSE: Section 106.10.2(a)(4) requires sources to, “Each month, record the type and amount of graphic arts material used in the previous month. The owner or operator may track the actual use of graphic arts material or use purchase and inventory records (assuming that all purchases not retained in inventory are used).” DAQ does not consider

this overly burdensome because sources are not required to do any emissions calculations and can use purchase records reports provided by their distributors to comply with this requirement.

**Recordkeeping Requirements 2, SUMMARY OF COMMENT(S):** The commenter suggests the requirement to record name, manufacturer, and VOC content for each graphic arts material used per Section 106.10.2(a)(5)(A)–(D) is extremely resource intensive, since some printing operations can use up to 100 different inks. The commenter suggests allowing sources to group similar materials into a single class, then use the highest VOC content.

RESPONSE: Section 106.10.2(a)(5)(A)–(D) requires sources to track information usually included in Safety Data Sheets (SDSs). Sources must know the VOC content of each graphic arts material to determine its applicability status and ensure emissions remain within the projected maximum emissions identified in the source's registration. The Occupational Safety and Health Administration already requires SDSs to be readily accessible to employees during each work shift, so this is not an additional burden.

*END*











# BCC 5/7/2024 #55 Approved item for signature

Final Audit Report

2024-05-13

Created:	2024-05-08 (Pacific Daylight Time)
By:	Asano Taylor (TaylorA@ClarkCountyNV.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAAsCMre-jACvrdBN16x5xfS_8_Iz6ocGHT

## "BCC 5/7/2024 #55 Approved item for signature" History

-  Document created by Asano Taylor (TaylorA@ClarkCountyNV.gov)  
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-  Document emailed to tsegerblom@clarkcountynv.gov for signature  
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-  Email viewed by tsegerblom@clarkcountynv.gov  
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-  Signer tsegerblom@clarkcountynv.gov entered name at signing as Tick Segerblom  
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-  Document emailed to Lynn Goya (Lynn.Goya@ClarkCountyNV.gov) for signature  
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AFFIDAVIT OF PUBLICATION

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COUNTY OF CLARK) SS:

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ATTN: COMMISSION CLERK  
RM 6037  
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LAS VEGAS NV 89155

Account # 104095  
Order ID 314804

IMAGE ON NEXT PAGE(S)

Leslie McCormick, being 1st duty sworn, deposes and says: That she is the Legal Clerk for the Las Vegas Review-Journal/Las Vegas Sun, daily newspaper regularly issued, published and circulated in the Clark County, Las Vegas, Nevada and that the advertisement, a true copy attached for, was continuously published in said Las Vegas Review-Journal/Las Vegas Sun, in 2 edition(s) of said newspaper issued from 05/14/2024 to 05/21/2024, on the following day(s):

05/14/2024, 05/21/2024

*Leslie McCormick*

LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this May 21, 2024

Notary

*Linda Espinoza*



## ORDINANCE NO. 5127

AN ORDINANCE TO CREATE A NEW CLARK COUNTY AIR QUALITY REGULATION SECTION 106, "VOC EMISSIONS CONTROL FOR OFFSET LITHOGRAPHIC, LETTERPRESS, AND FLEXIBLE PACKAGE PRINTING AND OTHER GRAPHIC ARTS OPERATIONS," TO REGULATE SOURCES THAT MAY CAUSE OR CONTRIBUTE TO VOLATILE ORGANIC COMPOUND EMISSIONS WITHIN THE 2015 OZONE NONATTAINMENT BOUNDARY BY IMPLEMENTING EMISSIONS STANDARDS, WORK PRACTICES, PERMITTING OR REGISTRATION REQUIREMENTS, RECORDKEEPING AND REPORTING REQUIREMENTS; AND PROVIDING FOR OTHER MATTERS PROPERLY RELATED THERETO.

NOTICE IS HEREBY GIVEN that typewritten copies of the above numbered and entitled Ordinance are available for inspection by all interested parties at the Office of the County Clerk of Clark County, Nevada, at her Commission Division Office on the first floor of the Clark County Government Center, 500 South Grand Central Parkway, Las Vegas, Nevada, and that said Ordinance was proposed by Commissioner Tick Segerblom on the 16th day of April 2024 and passed on the 7th day of May 2024, by the following vote of the Board of County Commissioners:

Aye:  
Tick Segerblom  
William McCurdy II  
James B. Gibson  
Justin Jones  
Marilyn K. Kirkpatrick  
Ross Miller  
Michael Naft

Nay: None  
Abstaining: None  
Absent: None

This Ordinance shall be in full force and effect from and after the 21st day of May 2024.

(SEAL) LYNN MARIE GOYA,  
COUNTY CLERK  
and Ex-Officio Clerk of the  
Board of County  
Commissioners

Dated this 7th day of May 2024.

PUB: May 14, 21, 2024  
LV Review-Journal