

Executive Summary
Final-form Amendments to 25 Pa. Code Chapters 121, 129 and 130
Control of VOC Emissions from Flexible Packaging Printing Presses,
Offset Lithographic Printing Presses and Letterpress Printing Presses; and
Adhesives, Sealants, Primers and Solvents

The Department of Environmental Protection recommends final-form amendments to 25 Pa. Code Chapters 121, 129 and 130 (relating to general provisions; standards for sources; and standards for products) for consideration by the Environmental Quality Board (Board).

Purpose of the Final-form Rulemaking

The final-form rulemaking amends Chapters 121 and 129 to limit emissions of volatile organic compounds (VOCs) from inks, varnishes, coatings, adhesives, fountain solutions and cleaning solutions applied on and with flexible packaging printing presses, offset lithographic printing presses and letterpress printing presses. VOCs are precursors to the formation of ground-level ozone air pollution. The final-form rulemaking establishes the emission limits and implements recommendations of the United States Environmental Protection Agency's (EPA) 2006 Control Techniques Guidelines (CTGs) for flexible packaging printing and for offset lithographic printing and letterpress printing for these sources in this Commonwealth. The final-form rulemaking also includes clarifying amendments to the regulations for adhesives, sealants, primers and solvents in Chapters 129 and 130.

The VOC emission reduction measures set forth in the final-form rulemaking are reasonably required to attain and maintain the 1997 and 2008 8-hour National Ambient Air Quality Standards for ozone and to satisfy related Clean Air Act requirements. The final-form rulemaking, if published as final-form regulation in the *Pennsylvania Bulletin*, will be submitted to the EPA as a revision to the State Implementation Plan.

Summary of the Final-form Rulemaking

Section 121.1

The final-form rulemaking adds 18 new terms and definitions to § 121.1 (relating to definitions) and revises the definitions of five existing terms.

Section 129.51

The final-form rulemaking amends § 129.51(a) (relating to general) to extend its coverage to the owner and operator of a flexible packaging printing press, offset lithographic printing press or letterpress printing press, or a combination of these press types, covered by this final-form rulemaking. Section 129.51(a) provides an alternative method for owners and operators of facilities to achieve compliance with air emission limits. Paragraph 129.51(a)(3) is amended to clarify the materials included in the requirement.

The final-form rulemaking amends § 129.51(c) to clarify that the test methods in Chapter 139 (relating to sampling and testing) should be followed to monitor compliance with the emission requirements of § 129.51, unless otherwise set forth in Chapter 129 and amends § 129.51(d) to

clarify the records that are generally applicable under Chapter 129 to demonstrate emission limitations or control requirements and the amount of time which they are to be kept.

The final-form rulemaking redesignates § 129.51(d)(3) as § 129.51(e) to clarify that the owner or operator of a facility or source claiming that the facility or source is exempt from the VOC control provisions of Chapter 129 shall maintain records that clearly demonstrate to the Department that the facility or source is not subject to the VOC emission limitations or control requirements of Chapter 129.

Section 129.67

The final-form rulemaking amends § 129.67 (relating to graphic arts systems) to account for the new requirements that will apply to the owner and operator of a flexible packaging printing press under § 129.67a. Section 129.67 applies to certain rotogravure and flexographic printing presses.

Section 129.67a

The final-form rulemaking adds § 129.67a (relating to control of VOC emissions from flexible packaging printing presses) to regulate VOC emissions from flexible packaging printing presses.

Subsection (a) of § 129.67a establishes the applicability criteria for § 129.67a.

Subsection (b) explains that the requirements of § 129.67a supersede the requirements of a reasonably available control technology (RACT) permit already issued to the owner or operator of a source subject to § 129.67a, except to the extent the RACT permit contains more stringent requirements.

Subsection (c) establishes VOC emission limitation options beginning January 1, 2015.

Subsection (d) identifies the compliance and monitoring procedures to demonstrate compliance with § 129.67a for sources that use an add-on air pollution control device.

Subsection (e) establishes recordkeeping and reporting requirements beginning January 1, 2015.

Subsection (f) specifies sampling and testing methods.

Subsection (g) establishes work practice requirements for cleaning activities beginning January 1, 2015.

Section 129.67b

The final-form rulemaking adds § 129.67b (relating to control of VOC emissions from offset lithographic printing presses and letterpress printing presses) to regulate VOC emissions from offset lithographic printing presses and letterpress printing presses.

Subsection (a) of § 129.67b establishes the applicability criteria for § 129.67b.

Subsection (b) explains that the requirements of § 129.67b supersede the requirements of a RACT permit already issued to the owner or operator of a source subject to § 129.67b, except to the extent the RACT permit contains more stringent requirements.

Subsection (c) establishes VOC emission limitations for cleaning solutions and fountain solutions used in or on printing presses subject to the section beginning January 1, 2015.

Subsection (d) establishes VOC emission limitations for heatset web offset lithographic printing presses and heatset web letterpress printing presses beginning January 1, 2015.

Subsection (e) specifies compliance and monitoring requirements to demonstrate compliance with the requirements of § 129.67b.

Subsection (f) establishes recordkeeping requirements beginning January 1, 2015.

Subsection (g) establishes reporting requirements beginning January 1, 2015.

Subsection (h) specifies sampling and testing methods.

Subsection (i) establishes work practice requirements for cleaning activities.

Subsections (j) and (k) specify the test methods and an equation for calculating the vapor pressure of the cleaning solutions.

Subsection (l) establishes retention factors and capture efficiency factors for calculating VOCs from the different processes in offset lithographic and letterpress printing. Subsection (l) is new at final.

Sections 129.77 and 130.703

The final-form rulemaking amends §§ 129.77(k) and 130.703(a)(2) (relating to control of emissions from the use or application of adhesives, sealants, primers and solvents; and exemptions and exceptions) to clarify the applicability of the adhesive, sealant, primer and solvent requirements to the adhesives used or applied on or with the printing presses to be regulated under this rulemaking.

Affected Parties

The Graphic Arts Association (GAA) identified approximately 1800 printing facilities in this Commonwealth as potentially subject to this final-form rulemaking, including 114 flexographic and gravure and 1758 lithographic printing and letterpress printing facilities. The Department used the GAA numbers, data from the Air Inventory Management System (AIMS) and certain assumptions presented in the CTGs for these source categories to conservatively calculate the number of facilities that may be subject to the final-form rulemaking and to the associated additional emission reductions and costs. The estimated total maximum anticipated additional emission reductions from the final-form rulemaking range from 646 tons per year (tpy) to 697 tpy. The actual emission reductions achieved will be lower if the owners and operators of the

affected facilities already comply with all or portions of the final-form rulemaking. The cost of complying with the new requirements includes the cost of using low VOC-content or VOC-free inks, coatings and adhesives; add-on air pollution control systems; or a combination of these two approaches. The total estimated maximum anticipated additional annual costs to the regulated printing industry as a whole could range from \$1,641,630 to \$1,821,630.

Advisory Groups

The final-form rulemaking was discussed with the Air Quality Technical Advisory Committee (AQTAC) at its August 1, 2013, meeting. During the AQTAC's consideration of the final-form rulemaking, the following issues were discussed: the change from the proposed 15 pounds per day applicability threshold to the 450 pounds per month applicability threshold and the associated change from daily recordkeeping to monthly recordkeeping; the change from 30% by weight to 70% by weight VOC content for cleaning solutions; the change from a 55-gallon limit to a 110-gallon limit for non-complying cleaning solutions used at the facility each year; and the use of the VOC content of the highest VOC-containing ink as a surrogate for the VOC content of all inks used on the press to ease the recordkeeping burden for the owners and operators of small printing operations. Following the discussion, AQTAC voted 11-1-1 to concur with the Department's recommendation to present the draft final-form rulemaking, with consideration of the issues discussed by the Committee, to the Board for consideration for publication as a final-form rulemaking.

The Department consulted with the Small Business Compliance Advisory Committee (SBCAC) on July 24, 2013. The SBCAC encouraged the Department to reach out to the potentially affected small businesses with information about the final-form rulemaking. The SBCAC concurred with the Department's recommendation to forward the final-form rulemaking to the Board for consideration as a final-form rulemaking. The Department also consulted with the Citizens Advisory Council (CAC) Policy and Regulatory Oversight Committee on August 28, 2013. The CAC Policy and Regulatory Oversight Committee reported on the final-form rulemaking to the CAC at the CAC meeting of September 17, 2013. The CAC has requested the opportunity to review the revised final-form Annex A prior to providing its decision on concurring with the recommendation of the Policy and Regulatory Oversight Committee to present the final-form rulemaking to the Board.

The Department communicated with several industry associations and one printing facility during development of the final-form rulemaking, namely Printing Industries of America, the Graphic Arts Association, the Flexographic Technical Association, the National Federation of Independent Businesses and Bemis Company, Inc.

Public Comments and Board Hearings

The Environmental Quality Board approved publication of the proposed rulemaking at its meeting of September 20, 2011. The proposed rulemaking was published in the *Pennsylvania Bulletin* on February 11, 2012, with a 66-day public comment period (42 Pa.B.779). Three public hearings were held on March 14, 15 and 16, 2012, in Pittsburgh, Norristown and Harrisburg, PA, respectively. The public comment period closed on April 16, 2012.