

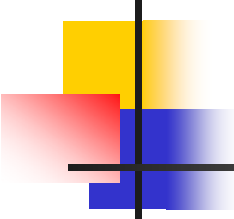


Proposed Rulemaking
Flexible Packaging Printing Presses,
Offset Lithographic Printing Presses and
Letterpress Printing Presses

25 *Pa. Code* Sections 129.67a and 129.67b

Environmental Quality Board Meeting
Harrisburg, PA
September 20, 2011

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Department of Environmental Protection
Commonwealth of Pennsylvania



Proposed Rulemaking Flexible Packaging Printing Presses, Offset Lithographic Printing Presses and Letterpress Printing Presses

Background:


- Section 183(e)(3)(C) of the Clean Air Act (CAA) authorizes the EPA to issue Control Technique Guidelines (CTGs) in place of a national regulation for a product category where the EPA determines that the CTG will be “substantially as effective as regulations” in reducing emissions of volatile organic compounds (VOC) in ozone nonattainment areas; VOCs are precursors to ground-level ozone formation.
- The CAA requires that states with ozone nonattainment areas classified moderate or above and all states in the Ozone Transport Region including Pennsylvania, submit a State Implementation Plan (SIP) revision requiring implementation of “reasonably available control technology” (RACT) requirements for certain VOC-emitting sources covered by the EPA guidelines.
- The CTG provides states with the EPA’s recommendations of what constitutes RACT for the covered category.



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Background:

- The EPA issued CTGs from 2006 through 2008 that cover 11 VOC-emitting product categories.
- The Department has completed final rulemakings and received EPA SIP approval for four of the 11 CTG categories.
- Additionally, the EPA has indicated that Pennsylvania's recently published final rulemaking for adhesives, sealants, primers and solvents will satisfy the RACT requirements for the Miscellaneous Industrial Adhesives CTG and be approved as a revision to the Commonwealth's SIP.
- Today's proposed rulemaking addresses two CTG categories--flexible packaging printing presses and offset lithographic printing and letterpress printing presses (FPP-LLP).
- The remaining CTG categories -- miscellaneous metal parts and products, auto and light-duty trucks, fiberglass boat manufacturing, and industrial cleaning solvents, will be addressed by two rulemakings that are currently in development.



Proposed Rulemaking Flexible Packaging Printing Presses, Offset Lithographic Printing Presses and Letterpress Printing Presses

Federal and state initiatives:

- There are no specific Federal statutory or regulatory requirements for flexible packaging printing, offset lithographic printing and letterpress printing presses. (FPP-LLP)
- The requirements in the proposed rulemaking are mainly consistent with the recommendations of the EPA in the 2006 CTGs for FPP-LLP presses.
- All states in the OTR that have FPP or LLP printing presses that meet the applicability limits of the CTG are required to implement RACT or equivalent control measures.
- Pennsylvania will not be at a disadvantage with the other states in the OTR or with those other states required to implement RACT measures.



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Purpose of rulemaking:

- Exposure to ground-level ozone is a serious human and animal health and welfare threat, causing respiratory illnesses and decreased lung function, agricultural crop loss, visible foliar injury to sensitive plant species, and damage to forests, ecosystems and infrastructure.
- This proposed rulemaking is reasonably necessary to attain and maintain the health- and welfare-based 8-hour ground-level ozone National Ambient Air Quality Standards in this Commonwealth.



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The proposed rulemaking:


- Adds 17 new terms and definition and revises two definitions to *25 Pa. Code* § 121.1 (relating to definitions).
- Amends *25 Pa. Code* § 129.51(a) to extend its coverage to FPP and LLP presses covered by this proposed rulemaking. Section 129.51(a) provides an alternative method for owners and operators of facilities to achieve compliance with air emission limits.
- Amends *25 Pa. Code* § 129.67 (relating to graphic arts systems) to clarify the overlap of existing requirements with the proposed new section for flexible packaging printing.



Proposed Rulemaking Flexible Packaging Printing Presses, Offset Lithographic Printing Presses and Letterpress Printing Presses

The proposed rulemaking:

- Adds 25 *Pa. Code* § 129.67a (relating to control of VOC emissions from flexible packaging printing presses).
- Adds 25 *Pa. Code* § 129.67b (relating to control of VOC emissions from offset lithographic printing presses and letterpress printing presses).
- Includes VOC content limits, efficiencies for add-on control devices, and requirements for compliance monitoring, recordkeeping and reporting, sampling and testing, and work practices for cleaning materials.
- The proposal will be effective upon publication in the *Pennsylvania Bulletin* as a final rulemaking.



Proposed Rulemaking Flexible Packaging Printing Presses, Offset Lithographic Printing Presses and Letterpress Printing Presses

Applicability:

The proposed new §§ 129.67a and 129.67b will each have applicability thresholds for potential and actual VOC emissions:

- An individual (FPP or LLP) printing press that has potential emissions from the dryer, before consideration of add-on controls, of at least 25 tons per year of VOC from all inks, coatings and adhesives.
- The total actual VOC emissions from all inks, coatings and adhesives combined from all FPP or all LLP printing presses and all emissions from related cleaning activities at the facility are equal to or greater than 2.7 tons per 12-month rolling period, before consideration of add-on controls.



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Compliance Deadline and Compliance Options:

- January 1, 2013, is the proposed compliance date for all provisions of the proposed rulemaking.
- The proposed compliance options provide flexibility by allowing for the use of low VOC-content inks, coatings or adhesives, add-on controls, or a combination of complying inks, coatings or adhesives and add-on controls.
- Work practices for cleaning materials include using closed containers and minimizing spills.



Proposed Rulemaking Flexible Packaging Printing Presses, Offset Lithographic Printing Presses and Letterpress Printing Presses

Provisions more stringent than CTG Recommendations:

Proposed §§ 129.67a(g) and 129.67b(i) (relating to work practice requirements for cleaning materials) are more stringent than what is recommended in the CTGs, but are not more stringent than Federal law because these requirements are already in the Commonwealth's Federally approved SIP.

- The CTGs recommend that work practices for cleaning materials apply to parts washers or cold cleaners used for cleaning press parts.
- The use of parts washers and cold cleaners is regulated under § 129.63 (relating to degreasing operations) and is referenced in these paragraphs.
- The requirements of § 129.63 are more stringent than the CTG recommendations, but must be maintained to satisfy the anti-backsliding provisions of sections 110 and 193 of the CAA (42 U.S.C.A. §§ 7410 and 7515).



Proposed Rulemaking Flexible Packaging Printing Presses, Offset Lithographic Printing Presses and Letterpress Printing Presses

Provisions more stringent than CTG Recommendations:

- Proposed §§ 129.67b(c)(1)(i)(B) and 129.67b(c)(1)(ii) (relating to emission limits for all printing presses subject to this section) are more stringent than the EPA's recommendation for allowable VOC content of cleaning materials and for the "total gallons" exemption in the (nonbinding) CTG.
- The provisions are consistent with General Permits issued for Sheet-fed Lithographic Printing Presses (GP-7) and Non-heatset Web Offset Lithographic Printing Presses (GP-10) by the DEP on June 1, 1998, and June 14, 1999, respectively. The General Permits were developed in consultation with the Graphics Arts Foundation.



Proposed Rulemaking Flexible Packaging Printing Presses, Offset Lithographic Printing Presses and Letterpress Printing Presses

Provisions more stringent than CTG recommendations:

- Proposed § 129.67b(c)(1)(i)(B) requires a VOC content less than 30% by weight for cleaning materials, consistent with the EPA's 1994 Alternative Control Techniques Document for offset lithographic printing and the Department's Air Quality General Permits 7 and 10 issued in June 1998 and June 1999, respectively.
- Proposed § 129.67b(c)(1)(ii) allows a total gallon exemption for up to 55 gallons of noncomplying cleaning materials, consistent with the Department's Air Quality General Permits 7 and 10.
- The EPA recommends a VOC content less than 70% by weight and recommends the total gallons exemption at 110 gallons for cleaning materials not meeting the prescribed limit.
- The Board is specifically seeking comment on these two provisions.



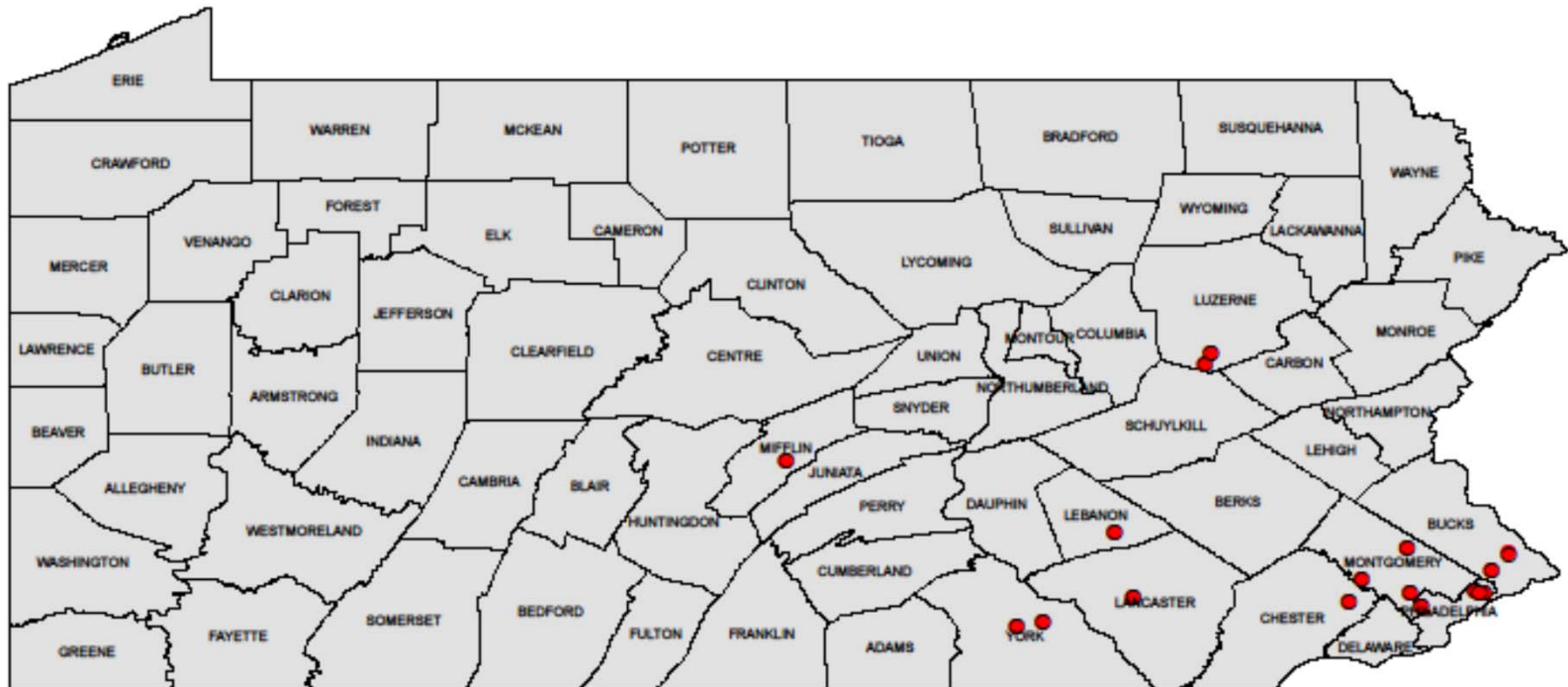
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Expected results:

- The proposed rulemaking may affect as many as 52 flexible packaging printing facilities and 387 offset lithographic printing and letterpress printing facilities; however, some facilities are already in compliance with proposed measures.
- The Department estimates 69 to 84 tons per year (tpy) of VOC reductions from the flexible packaging printing facilities and approximately 306 to 323 tpy of VOC reductions from the offset lithographic printing and letterpress printing facilities.

Flexible Packaging Printing Press Facilities

Which Are Potentially Affected by Proposed Rulemaking

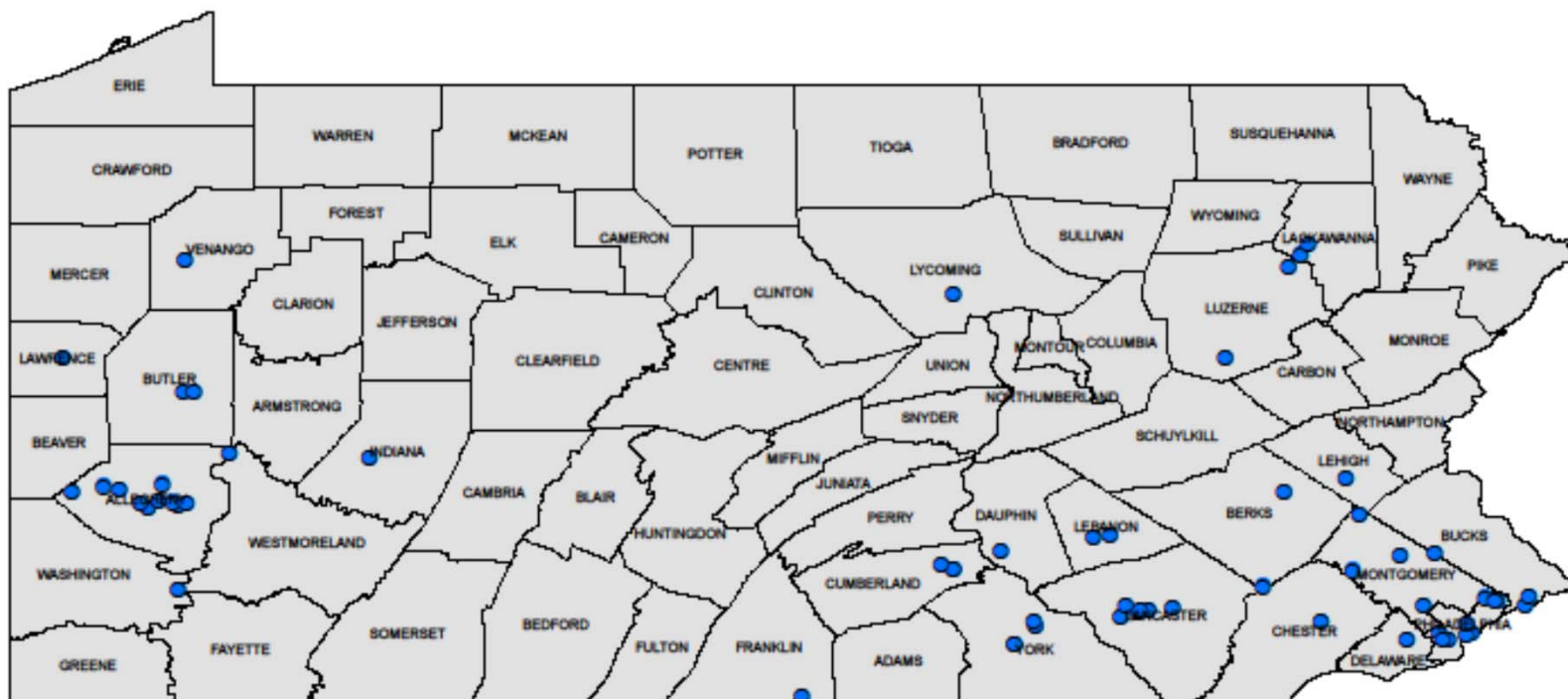


Flexible Packaging Printing Press Facilities

- Facilities Identified in the Air Information Management System (17)

Offset Lithographic Printing Press or Letterpress Printing Press Facilities

Which Are Potentially Affected by Proposed Rulemaking



Offset Lithographic Printing Press or Letterpress Printing Press Facilities


- Facilities Identified in the Air Information Management System (60)



Proposed Rulemaking Flexible Packaging Printing Presses, Offset Lithographic Printing Presses and Letterpress Printing Presses

Costs to the regulated community:

- Based on information provided by the EPA in the CTGs for add-on controls, the cost-effectiveness of reducing VOC emissions from:
 - FPP sources is estimated at \$5,700 per ton of VOC reduced by a catalytic oxidizer. The total maximum anticipated annual costs to the regulated industry could range from \$393,300 to \$478,800 (in 2005 dollars).
 - LLP sources is estimated at \$2,010 per ton of VOC reduced from heatset inks and cleaning materials. The total maximum anticipated annual costs to the regulated industry could range from \$615,060 to \$649,230.
- EPA assumes that 80% the heat-set dryers are already controlled and approximately 60% of the affected facilities are meeting the CTG work practice recommendations for the cleaning materials.
- Use of low VOC-emitting adhesives, coating, inks and cleaning materials will reduce compliance costs.



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Advisory Committee Review:

- The Air Quality Technical Advisory Committee (AQTAC) was consulted on December 16, 2010, and voted 9-0-2 to concur with the Department's recommendation to present the proposed rulemaking to the Board.
- The AQTAC requested that the Department consider flexibility and compliance assistance for the daily recordkeeping and reporting requirements for small businesses.
- The DEP intends to consult with industry, trade associations, Small Business Development Centers and the Office of the Small Business Ombudsman regarding flexible compliance monitoring, recordkeeping and reporting requirements.



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Advisory Committee Review:

- The Citizens Advisory Council (CAC) Air Committee was consulted on January 24, 2011. On February 15, 2011, the full committee concurred with presenting the proposed rulemaking to the Board. The CAC recommended that the Department:
 - Reach out to the Graphic Arts trade association to better identify the number of potentially affected facilities.
 - Conduct outreach through the trade association and other small business groups to potentially affected facilities regarding compliance and recordkeeping requirements.
- The DEP will conduct additional outreach activities during the public participation process.



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Advisory Committee Review:

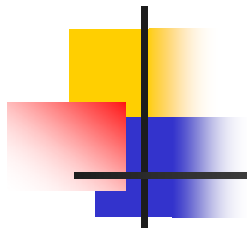
- The Small Business Compliance Advisory Committee (SBCAC) was consulted on January 26, 2011, and concurred with presenting the proposed rulemaking to the Board.
- The SBCAC encouraged the Department to conduct outreach to assure the regulated community is aware of the proposed rulemaking and the opportunity for public comment on the proposal during the public comment period.



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Recommended Public Participation:

- The Department recommends a 60-day public comment period and three public hearings on the proposed rulemaking.
- If published in the *Pennsylvania Bulletin* as a final-form regulation, a revision to the State Implementation Plan will be submitted to the EPA.



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION



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