



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Air Quality

Draft Final Rulemaking 25 Pa. Code Chapter 129

**Control of VOC Emissions from Industrial Cleaning Solvents;
General Provisions; Aerospace Manufacturing and Rework;
Additional RACT Requirements for Major Sources of NO_x and VOCs**

**Air Quality Technical Advisory Committee
(AQTAC)**

**February 8, 2018
Harrisburg, PA**

Tom Wolf, Governor

Patrick McDonnell, Secretary

Overview

- The draft final-form Annex A is based on the 2006 U.S. Environmental Protection Agency (EPA) Control Techniques Guidelines (CTG) for Industrial Cleaning Solvents.
- EPA's CTG is a recommendation for what constitutes reasonably available control technology (RACT) to control volatile organic compound (VOC) emissions from the use of industrial cleaning solvents in ozone nonattainment areas and the Ozone Transport Region.
- This rulemaking is under an 18-month EPA sanction clock.
 - Statewide 'Emission Offsets' would begin on September 6, 2018.
 - Statewide 'Highway Fund' sanctions would begin in March of 2019.

Rulemaking Schedule

- **June 17, 2017** – Proposed rulemaking published in the *Pennsylvania Bulletin*.
- **July 18, 19, & 20, 2017** – Public Hearings in Norristown, Pittsburgh, and Harrisburg, respectively.
- Public comment period closed on **August 21, 2017**.
- **May 2018** – Anticipate Environmental Quality Board (EQB) consideration of final rulemaking.
- Upon final-form publication, the final rulemaking will be submitted to the EPA as a State Implementation Plan (SIP) revision.

Commentators

Eight commentators, including the Independent Regulatory Review Commission (IRRC), provided comments.

- **C.U.E., Inc.:**
 - ✓ Supported the 2.7-ton 12-month rolling period limit over a daily limit.
- **Specialty Graphics Imaging Assoc. (SGIA):**
 - ✓ Supported the screen printing exemption with a solvent standard of 4.2 lbs. of VOC per gallon as RACT for the industry.
- **American Coatings Association**
 - ✓ For consistency with EPA's CTG 'Aerospace Manufacturing Rework Operations' the Sealant (Extrudable/Rollable/Brushable) limit of 240 g/l should be raised to 280 g/l and the 'Self-Priming Topcoat' limit of 420 g/l should be removed.

Commentators (Continued)

- **East Penn Mfg.**

- ✓ Regulation should include exemption for sources for which RACT has been proposed or established under §§ 129.96-129.100 (RACT II).
- ✓ Regulation should include alternative compliance option to allow alternative RACT to be proposed under §§ 129.96-129.100.

- **Lockheed Martin Corporation**

- **Boeing Enterprises**

- ✓ These two commentators expressed concern over exemption category 'Aerospace coatings' and requested it be changed.

Commentators (Continued)

- **Environmental Protection Agency**

- ✓ Definition of 'industrial cleaning solvent' is poorly worded.
- ✓ DEP must further justify the exceptions in § 129.63a(c)(2) regarding screen printing and solvents that are subject to a specification or standard required by a federal government entity.
- ✓ DEP must clarify the term 'noncompliant industrial cleaning solvent.'
- ✓ The Department modified its RACT II rule's applicability in § 129.96 in such a way as to retroactively relieve affected sources of the requirements of the RACT II rule (§§ 129.96 -129.100).

Commentators (Continued)

- **Environmental Protection Agency**

- ✓ For ease of implementation, the 2.7-ton limit for a 12-month rolling period should be moved into the applicability subsection § 129.63a(a).
- ✓ In order to have all compliance requirements together, move the vapor pressure calculation method provisions of § 129.63a(h) to the compliance demonstration requirements in § 129.63a(g).
- ✓ DEP should provide specific monitoring requirements for the operation of a capture system and add-on air pollution control device to ensure compliance with § 129.63a(e)(2).

Commentators (Continued)

- **IRRC Comments.**

- ✓ “The U.S. Environmental Protection Agency, Region III (EPA) cites several concerns in its comments related to the new rule in § 129.63a and proposed amendments to the RACT II rule in § 129.96. Because EPA’s comments relate to our criteria regarding implementation, ambiguity, reasonableness and clarity, we share EPA’s concerns and incorporate them into the Commission’s comments on this proposed regulation. The EQB should carefully review EPA’s comments and work closely with it to make the necessary amendments to bring this regulation into compliance with federal requirements. We will consider EQB’s response to EPA in making a final determination as to whether the regulation is in the public interest.”

Commentators (Continued)

- **IRRC comments.**

- ✓ IRRC asks EQB to clarify and explain the reasonableness of exemptions and compliance options referred to by members of the regulated community.
 - Lockheed Martin asks EQB to modify the regulation to include an exemption for other non-coating application/activities that are critical to aerospace manufacturing and rework facilities. Likewise, Boeing Company states that the term “aerospace coatings” could be interpreted to limit the exemption to aerospace solvent cleaning activities associated with “coatings” only.
 - East Penn Manufacturing states that it is “technically infeasible to use an alternate solvent wiping solution for battery cleaning operations” and that the use of an emissions capture system and add-on air pollution control device to abate volatile organic compound emissions from a battery cleaning operation is not cost-effective.

Changes from Proposed to Final Rulemaking

Comments resulting in Changes to ANNEX A

- DEP agrees with the EPA and IRRC that the cleaning activities listed under ‘cleaning unit operation’ should have descriptions. DEP added a description of each cleaning activity from the CTG into the definition section of the rule.
- DEP agrees with the EPA and IRRC that the definition for ‘industrial cleaning solvent’ should be revised. DEP considered other states definitions and revised this definition.

Changes from Proposed to Final Rulemaking

Comments resulting in changes to ANNEX A

- DEP agrees with the Lockheed Martin, Boeing and IRRC comments that the exemption category name “aerospace coatings” in § 129.63a(c)(1)(ii) should be revised. DEP modified the category to “aerospace manufacturing and rework operations.”
- DEP addressed EPA and IRRC concerns about the term “noncompliant industrial cleaning solvent” and removed the term “noncompliant” from the rule.
- DEP agreed with EPA and IRRC concerns on retroactively changing the applicability in § 129.96(a) and (b) in the proposed rule and has modified the language in the final rule.

DEP Responses to other Comments

Comments and DEP Responses

- East Penn Manufacturing recommended that DEP should provide for a categorical exemption for units that previously proposed or established case specific RACT or provide an alternative compliance option to propose alternative RACT requirements. IRRC also sought clarification from DEP regarding categorical exemptions, alternative compliance options, costs effectiveness of controls and technical feasibility regarding battery cleaning operations.
 - ✓ The alternate methodologies recommended by the commentator are not recommended in the 2006 ICS CTG and were not adopted.
 - ✓ The commentator's assertion regarding costs effectiveness and technical infeasibility of using alternative solvent wiping for battery cleaning operations (NAICS Code 335) is addressed in exemptions. "Electrical and electronic components" are already exempt under the rulemaking.

DEP Responses to other Comments

Comments and DEP Responses

- EPA commented, in order to have all compliance requirements together, that the vapor pressure calculation method provisions of § 129.63a(h) be moved to the compliance demonstration requirements in § 129.63a(g).

The Department did not make this revision:

- ✓ The method to estimate composite vapor pressure in § 129.63a(i) is its own section and is not part of the recordkeeping requirements in § 129.63a(h).
- ✓ The method to estimate composite vapor pressure is not a compliance demonstration requirement and does not belong in § 129.63a(g).

DEP Responses to other Comments

Comments and DEP Responses

- For consistency with EPA’s CTG “Aerospace Manufacturing Rework Operations” the Sealant (Extrudable/Rollable/Brushable) limit of 240 g/l in § 129.73 should be raised to 280 g/l and the “Self-Priming Topcoat” limit of 420 g/l should be removed.
 - ✓ The comment is beyond the scope of this rulemaking which only corrects a numbering error in § 129.73 for the Aerospace manufacturing and rework Table II (relating to allowable content of VOCs in aerospace coatings).

DEP Responses to other Comments

Comments and DEP Responses

- EPA recommended that DEP should provide specific monitoring requirements for operation of a capture system and add on air pollution control device to ensure adequate compliance with the control requirements in § 129.63a(e)(2).
 - ✓ Specific monitoring requirements for the installation of air capture and add on pollution control devices are evaluated under the Department's federally approved permitting and plan approval programs. DEP did not amend the final-form rulemaking.

DEP Responses to other Comments

Comments and DEP Responses

- EPA recommended including the 2.7 ton threshold in the applicability section (§ 129.63a(a)).
 - ✓ *DEP declined this recommendation.*
 - ✓ *The rule also applies to cleaning operations emitting less than 2.7 tons per year specifically for recordkeeping purposes.*
- EPA commented that DEP must further justify the exceptions in § 129.63a(c)(2) regarding screen printing and solvents that are subject to a specification or standard required by a federal government entity.

Justifying Exceptions

The exceptions in § 129.63a(c)(2).

- Screen printing and establishing 4.2 lbs./gallon standard.
 - ✓ Exempt from compliant solvent options of 8 mm of Hg vapor pressure limit and the 50 grams/liter standard limit.
 - ✓ Instead must meet 4.2 lbs./gallon (500 grams/liter).
- Exemption of a federal agency required solvent.
 - ✓ Exempt from ICS but not exempted from major source VOC RACT.

Justifying Exception /Screen Printing

- **Screen printing and alternate 4.2 lbs./gallon standard.**
 - ✓ DEP adopted an industry-wide RACT alternative standard in the exemption. There are existing EPA recommendations and multiple state EPA SIP approvals which support Pennsylvania's exception and alternative standard in § 129.63a(c)(2)(i).
 - ✓ Screen printing operations utilize the same technology across the nation and based upon SGIA comments, RACT for this industry does not change from state to state.

Justifying Exemption /Federal Agency Required Solvent

- **Exception for solvent required by federal agency.**
 - ✓ Just like with aerospace operations, when the Department of Defense, the Federal Aviation Administration, the Food and Drug Administration, and other federal agencies provide public health and safety related specifications for cleaning critical parts and operations to provide a necessary level of cleanliness, alternative solvents may not be available or may need to go through a lengthy demonstration and approval process. This category of cleaning operation is best addressed by DEP's major source RACT program in §§ 129.96 –129.100.
 - ✓ EPA has approved a similar exemption in Connecticut's industrial solvents rule in a SIP revision for similar reasons.
 - ✓ See *78 FR 31459 (May 24, 2013)* and the Connecticut hearing report at: http://www.ct.gov/deep/lib/deep/air/regulations/proposed_and_reports/ctg_hearing_report_final_oct_09.pdf.

Anticipated Rulemaking Schedule

- SBCAC - January 24, 2018
- Air Quality Technical Advisory Committee (AQTAC) - February 8, 2018
- Citizens Advisory Council (CAC) Policy and Regulatory Oversight Committee – February 2018
- CAC – February 20, 2018 (Vote)
- EQB – Final Rulemaking – May 16, 2018
- Final Rulemaking Promulgated – August 2018
- Compliance Date – September 1, 2018

ACTAC Action

The Department is requesting AQTAC's concurrence with the Department's recommendation to move the industrial cleaning solvent final rulemaking forward to the EQB for consideration.



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Bureau of Air Quality

Contact

Randy Bordner, Environmental Group Manager
Department of Environmental Protection, Bureau of Air Quality
Rachel Carson State Office Building
400 Market Street, Harrisburg, PA 17105
Phone: 717.772.3921 | Fax: 717.772.2303
ranbordner@pa.gov