

PROPOSED RULEMAKING

ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CHS. 121 AND 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

The Environmental Quality Board (Board) proposes to amend Chapters 121 and 129 (relating to general provisions; and standards for sources) to read as set forth in Annex A.

This proposed rulemaking would add § 129.63a (relating to control of VOC emissions from industrial cleaning solvents) to adopt reasonably available control technology (RACT) requirements and RACT emission limitations for stationary sources of volatile organic compound (VOC) emissions from industrial cleaning solvents that are not regulated elsewhere in Chapter 129 or Chapter 130 (relating to standards for products). This proposed rulemaking would amend §§ 121.1 and 129.51 (relating to definitions; and general) to support the addition of § 129.63a. This proposed rulemaking would amend § 129.73 (relating to aerospace manufacturing and rework) to correct a numbering error in the table of VOC content limits. This proposed rulemaking would amend §§ 129.96, 129.97, 129.99 and 129.100 under the recently promulgated regulations for additional RACT requirements for major sources of nitrogen oxides (NO_x) and VOCs (RACT 2) to update the list of presumptive VOC RACT regulations for which RACT 2 does not apply and to clarify certain requirements.

This proposed rulemaking will be submitted to the United States Environmental Protection Agency (EPA) for approval as a revision to the Commonwealth's State Implementation Plan (SIP) following promulgation of the final-form rulemaking.

This proposed rulemaking is given under Board order at its meeting of March 21, 2017.

A. Effective Date

This proposed rulemaking will be effective upon final-form publication in the *Pennsylvania Bulletin*.

B. Contact Persons

For further information, contact Kirit Dalal, Chief, Division of Air Resource Management, Bureau of Air Quality, Rachel Carson State Office Building, P.O. Box 8468, Harrisburg, PA 17105-8468, (717) 772-3436; or Jesse C. Walker, Assistant Counsel, Bureau of Regulatory Counsel, Rachel Carson State Office Building, P.O. Box 8464, Harrisburg, PA 17105-8464, (717) 787-7060. Information regarding submitting comments on this proposed rulemaking appears in Section J of this preamble. Persons with a disability may use the Pennsylvania AT&T Relay Service, (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposed rulemaking is available on the Department of Environmental Protection's (Department) web site at www.dep.pa.gov (select "Public Participation," then "Environmental Quality Board (EQB)").

C. Statutory Authority

This proposed rulemaking is authorized under section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth. Section 5(a)(8) of the APCA also grants the Board the authority to adopt rules and regulations designed to implement the Clean Air Act (CAA) (42 U.S.C.A. §§ 7401—7671q).

D. Background and Purpose

Proposed § 129.63a would implement control measures to reduce VOC emissions from industrial cleaning solvents used and applied during cleaning unit operations at facilities which are not regulated elsewhere in Chapter 129 or Chapter 130. Industrial cleaning solvents are used or applied in a cleaning activity to remove a contaminant, including an adhesive, ink, paint, dirt, soil, oil or grease, from a cleaning unit operation or work production-related work area or from a part, product, tool, machinery, equipment, vessel, floor or wall.

VOCs are precursors for ground-level ozone formation. Ground-level ozone, a public health and welfare hazard, is not emitted directly to the atmosphere by industrial cleaning solvents, but forms from the photochemical reaction between emissions of VOCs and NO_x in the presence of sunlight. In accordance with sections 172(c)(1), 182(b)(2)(A) and 184(b)(1)(B) of the CAA (42 U.S.C.A. §§ 7502(c)(1), 7511a(b)(2)(A) and 7511c(b)(1)(B)), proposed § 129.63a establishes VOC emission limitations and other requirements consistent with the recommendations of the EPA 2006 Industrial Cleaning Solvents Control Techniques Guidelines (CTG) (2006 ICS CTG) for these sources in this Commonwealth. See 71 FR 58745 (October 5, 2006); and Control Techniques Guidelines: Industrial Cleaning Solvents, EPA 453/R-06-001, Office of Air Quality Planning and Standards, EPA, September 2006.

The EPA is responsible for establishing National Ambient Air Quality Standards (NAAQS) for six criteria pollutants considered harmful to public health and the environment: ground-level ozone; particulate matter; NO_x; carbon monoxide; sulfur dioxide; and lead. Section 109 of the CAA (42 U.S.C.A. § 7409) established two types of NAAQS: primary standards, which are limits set to protect public health; and secondary standards, which are limits set to protect public welfare and the environment, including protection against visibility impairment and from damage to animals, crops, vegetation and buildings. The EPA established primary and secondary ground-level ozone NAAQS to protect public health and welfare.

Ground-level ozone is a highly reactive gas, which at sufficiently high concentrations can produce a wide variety of harmful effects. At elevated concentrations, ground-level ozone can adversely affect human health, animal health, vegetation, materials, economic values, and personal comfort and well-being. It can cause damage to important food crops, forests, livestock and wildlife. Repeated exposure to ground-level ozone pollution may cause a variety of adverse health effects for both healthy people and those with existing conditions, including difficulty in breathing, chest pains, coughing, nausea, throat irritation and congestion. It can worsen bronchitis, heart disease, emphysema and asthma, and reduce lung capacity. Asthma is a significant and growing threat to children

and adults. High levels of ground-level ozone affect animals in ways similar to humans. High concentrations of ground-level ozone can also cause damage to buildings and synthetic fibers, including nylon, and reduced visibility on roadways and in natural areas. The implementation of additional measures to address ozone air quality nonattainment in this Commonwealth is necessary to protect the public health and welfare, animal and plant health and welfare, and the environment.

In July 1997, the EPA promulgated primary and secondary ozone standards at a level of 0.08 part per million (ppm) averaged over 8 hours. See 62 FR 38856 (July 18, 1997). Because ozone data is measured out to three decimal places, the standard effectively became 0.084 ppm because of rounding; areas with ozone levels as high as 0.084 ppm (84 parts per billion (ppb)) were considered as meeting the 0.08 ppm standard. In 2004, the EPA designated 37 counties in this Commonwealth as 8-hour ozone nonattainment areas for the 1997 8-hour ozone NAAQS. See 69 FR 23858, 23931 (April 30, 2004). Based on the certified ambient air monitoring data for the 2015 ozone season as well as the preliminary 2016 ozone season data, all monitored areas of this Commonwealth are attaining the 1997 8-hour ozone NAAQS. Maintenance plans have been submitted to the EPA and approved for the 1997 ozone standard. In accordance with section 175A(a) of the CAA (42 U.S.C.A. § 7505a(a)), the maintenance plans include permanent and enforceable control measures that will provide for the maintenance of the ozone NAAQS for at least 10 years following the EPA's redesignation of the areas to attainment. Eight years after the EPA redesignates an area to attainment, additional maintenance plans approved by the EPA must also provide for the maintenance of the ozone standard for another 10 years following the expiration of the initial 10-year period. See section 175A(b) of the CAA.

In March 2008, the EPA lowered the primary and secondary ozone NAAQS to 0.075 ppm (75 ppb) averaged over 8 hours to provide greater protection for children, other at-risk populations and the environment against the array of ozone-induced adverse health and welfare effects. See 73 FR 16436 (March 27, 2008). In April 2012, the EPA designated five areas in this Commonwealth as nonattainment for the 2008 ozone NAAQS. See 77 FR 30088, 30143 (May 21, 2012). These areas include all or a portion of Allegheny, Armstrong, Beaver, Berks, Bucks, Butler, Carbon, Chester, Delaware, Fayette, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia, Washington and Westmoreland Counties. With regard to the 2008 ozone NAAQS, the certified 2015 ambient air ozone season monitoring data indicate that all areas of this Commonwealth are monitoring attainment of the 2008 ozone NAAQS. The Department's analysis of the preliminary 2016 ambient air ozone season monitoring data shows that ozone samplers in this Commonwealth, except the Bristol sampler in Philadelphia County, are monitoring attainment of the 2008 ozone NAAQS. As with the 1997 ozone NAAQS, the Department must ensure that the 2008 ozone NAAQS is attained and maintained by implementing permanent and enforceable control measures. At the Department's request, the EPA granted 1-year attainment date extensions for the 2008 ozone NAAQS in the Philadelphia and Pittsburgh-Beaver Valley Areas due to violating monitors in New Jersey and Maryland. Adoption of the VOC emission control measures in proposed § 129.63a would allow the Commonwealth to continue its progress in attaining and maintaining the 2008 8-hour ozone NAAQS.

On October 1, 2015, the EPA again lowered the primary and secondary ozone NAAQS, this time to 70 ppb averaged over 8 hours. See 80 FR 65292 (October 26, 2015). Based on certified ambient air monitoring data for the 2013–2015 ozone seasons, eight monitors in this Commonwealth have design values that violate the 2015 ozone NAAQS. The monitors are located in Allegheny, Armstrong, Bucks, Delaware, Indiana, Lebanon, Montgomery and Philadelphia Counties. Preliminary ambient air ozone monitoring data for the 2014–2016 ozone seasons, however, indicate that six counties have design values that violate the 2015 ozone NAAQS. These six monitors are located in Allegheny, Berks, Bucks, Delaware, Montgomery and Philadelphia Counties. As required under section 107(d) of the CAA (42 U.S.C.A. § 7407(d)), the Commonwealth submitted designation recommendations for the 2015 ozone NAAQS to the EPA on October 3, 2016. The designation recommendations were based on the ambient ozone concentrations from the 2013–2015 ozone seasons. The EPA is expected to issue final designations for attainment, nonattainment and unclassifiable areas for the 2015 ozone NAAQS in December 2017.

Reductions in VOC emissions that are achieved following the adoption and implementation of VOC RACT emission control measures for source categories covered by CTGs, including the use and application of industrial cleaning solvents during cleaning unit operations at facilities, will assist the Commonwealth in making substantial progress in achieving and maintaining the 1997 and 2008 8-hour ozone NAAQS. These emission reductions will also be necessary for progress in attaining and maintaining the new ozone NAAQS promulgated by the EPA at 80 FR 65292.

Proposed § 129.63a is designed to adopt VOC emission limitations and other requirements consistent with the RACT recommendations in the EPA's 2006 ICS CTG to meet the requirements of sections 172(c)(1), 182(b)(2) and 184(b)(1)(B) of the CAA. These VOC emission limitations and other requirements would apply across this Commonwealth as required under section 184(b)(1)(B) of the CAA. The control measures in proposed § 129.63a would reduce VOC emissions from the industrial cleaning solvents source category throughout this Commonwealth at those affected sources that do not already comply with the applicable control measures. The VOC emission reduction measures in proposed § 129.63a are reasonably necessary to attain and maintain the health-based and welfare-based 8-hour ozone NAAQS in this Commonwealth and to satisfy related CAA requirements.

There are no Federal statutory or regulatory RACT limits for VOC emissions from industrial cleaning solvents used or applied during cleaning unit operations at facilities. When developing the recommendations for the VOC emission reduction RACT measures included in its 2006 ICS CTG, the EPA took into account the data collected during the development of the 1994 Alternative Control Techniques Document-Industrial Cleaning Solvents. See 2006 ICS CTG, Appendix A (Alternative Control Techniques Document-Industrial Cleaning Solvents, EPA-453/R-94-015 February 1994).

State regulations to control VOC emissions from existing stationary sources of industrial cleaning solvents used or applied during cleaning unit operations at facilities are required under Federal law. The Commonwealth regulation will be reviewed and approved by the EPA as a revision to the Commonwealth's SIP if the provisions meet the RACT requirements of the CAA and its imple-

menting regulations. See 71 FR 58745. The EPA defines RACT as “[t]he lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.” See 44 FR 53761 (September 17, 1979).

Section 110(a) of the CAA (42 U.S.C.A. § 7410(a)) provides that each state shall adopt and submit to the EPA a plan to implement measures (a SIP) to enforce the NAAQS or revision to the NAAQS promulgated under section 109(b) of the CAA. Section 172(c)(1) of the CAA provides that SIPs for nonattainment areas must include “reasonably available control measures,” including RACT, for sources of emissions of VOC and NO_x. Section 182(b)(2) of the CAA provides that for moderate ozone nonattainment areas, states must revise their SIPs to include RACT for sources of VOC emissions covered by a CTG document issued by the EPA prior to the area’s date of attainment of the applicable ozone NAAQS. More importantly, section 184(b)(1)(B) of the CAA requires that states in the Ozone Transport Region (OTR), including the Commonwealth, submit a SIP revision requiring implementation of RACT for all sources of VOC emissions in the state covered by a specific CTG and not just for those sources that are located in designated nonattainment areas of the state. Consequently, the Commonwealth’s SIP must include regulations applicable State-wide to control VOC emissions from existing stationary sources of industrial cleaning solvents used or applied during cleaning unit operations at facilities that are not regulated elsewhere in Chapter 129 or Chapter 130. The ground-level ozone reduction measures included in proposed § 129.63a would achieve VOC emission reductions and lowered concentrations of ground-level ozone locally and would also reduce the amounts of VOC emissions and ground-level ozone transported to downwind states. Adoption of VOC emission reduction requirements for these sources is part of the Commonwealth’s strategy, in concert with other OTR jurisdictions, to further reduce the transport of VOC ozone precursors and ground-level ozone throughout the OTR to attain and maintain the 8-hour ozone NAAQS.

Section 183(e) of the CAA (42 U.S.C.A. § 7511b(e)) directs the EPA to list for regulation those categories of products that account for at least 80% of the aggregate VOC emissions from consumer and commercial products in ozone nonattainment areas. Section 183(e)(3)(C) of the CAA further provides that the EPA may issue a CTG document in place of a National regulation for a product category on the section 183(e) list when the EPA determines that the recommendations of the CTG, when implemented by the affected states, will be “substantially as effective as regulations” in reducing emissions of VOC in ozone nonattainment areas. In 1995, the EPA listed industrial cleaning solvents on its section 183(e) list and, in 2006, issued a CTG for this product category. See 60 FR 15264, 15267 (March 23, 1995); 71 FR 58745; and Control Techniques Guidelines: Industrial Cleaning Solvents, EPA 453/R-06-001. The 2006 ICS CTG is available on the EPA web site at <https://www.epa.gov/stationary-sources-air-pollution/clean-air-act-guidelines-and-standards-solvent-use-and-surface>.

In the 2006 notice of final determination and availability of final CTGs, the EPA determined that the recommendations of the 2006 ICS CTG would be substantially as effective as National regulations in reducing VOC emissions from the industrial cleaning solvents product category in ozone nonattainment areas. See 71 FR 58745. The CTG provides states with the EPA’s recommendation

of what constitutes RACT for the covered category. State air pollution control agencies may use the Federal recommendations provided in the CTG to inform their own determination as to what constitutes RACT for VOC emissions from the covered category. State air pollution control agencies may implement other technically-sound approaches that are consistent with the CAA requirements and the EPA’s implementing regulations or guidelines.

The Department’s Bureau of Air Quality reviewed the RACT recommendations regarding VOC emission reduction measures included in the 2006 ICS CTG for their applicability to the ground-level ozone reduction measures necessary for this Commonwealth. The Bureau of Air Quality determined that VOC emission reduction measures and other requirements generally consistent with the recommendations provided in the 2006 ICS CTG are appropriate to be implemented in this Commonwealth as RACT for this source category.

The types of persons, businesses, small businesses and organizations that would be affected by proposed § 129.63a vary. The 2006 ICS CTG states that the recommendations apply to industries that have to use organic solvent to conduct cleaning activities in cleaning unit operations such as mixing vessels (tanks), spray booths and parts cleaners. The cleaning activities for the removal of foreign material from the substrate being cleaned include actions (activities) such as wiping, flushing or spraying. Proposed § 129.63a would apply to the owner and the operator of a facility at which an industrial cleaning solvent is used or applied in a cleaning activity to remove a contaminant, including an adhesive, ink, paint, dirt, soil, oil or grease, from a cleaning unit operation production-related work area or from a part, product, tool, machinery, equipment, vessel, floor or wall, except as specified in proposed § 129.63a(c), which lists exceptions and exemptions. A cleaning unit operation is an operation at a facility that is a source of VOC emissions from a cleaning activity. A cleaning activity is the use or application of an industrial cleaning solvent formulated with one or more regulated VOCs to remove a contaminant from a substrate or from equipment used to apply a material. Cleaning unit operations covered by proposed § 129.63a would include cleaning activities such as spray gun cleaning, spray booth cleaning, large manufactured components cleaning, parts cleaning, equipment cleaning, line cleaning, floor cleaning, tank cleaning and small manufactured components cleaning. Cleaning unit operations under proposed § 129.63a would not include VOC emissions from the use or application of consumer products subject to §§ 130.201–130.471 (relating to consumer products), including an institutional product or industrial and institutional product as defined in § 130.202 (relating to definitions) for cleaning offices, bathrooms or other areas that are not part of a cleaning unit operation or work production-related work area.

Proposed § 129.63a would not apply to the owner and operator of a cleaning unit operation associated with certain categories specified under exceptions and exemptions in proposed subsection (c). Subsection (c)(1) specifies industry sectors and product categories that would be exempt from proposed § 129.63a. Subsection (c)(2) specifies that the proposed VOC emission limitations of subsection (e) would not apply to the use or application of a noncomplying industrial cleaning solvent by the owner or operator of a cleaning unit operation at a facility subject to subsection (a) under certain circumstances—if the use or application of the noncomplying industrial cleaning solvent is subject to a standard or specification required

by the United States Department of Defense, Federal Aviation Administration or other Federal government entity, or if the use or application of the noncomplying industrial cleaning solvent is associated with the cleaning of screen printing equipment and the industrial cleaning solvent used or applied has an as applied VOC content that does not exceed 4.2 pounds of VOC per gallon (lb VOC/gal) (500 grams of VOC per liter (g VOC/l)). An owner or operator claiming one of these exemptions would be subject to specified recordkeeping and reporting requirements.

Proposed § 129.63a(c)(3) specifies that the VOC emission limitations of subsection (e) and the work practice requirements of subsection (f) would not apply to the owner or operator of a facility subject to subsection (a) if the total combined actual VOC emissions from all subject cleaning unit operations at the facility are less than 2.7 tons (2,455 kilograms) per 12-month rolling period, before consideration of controls. An owner or operator claiming this exemption would be subject to specified recordkeeping and reporting requirements.

The EPA estimated that there were 166 facilities in this Commonwealth that would be affected by the recommended 2006 ICS CTG control measures. The Department expects that the universe of potentially affected facility owners and operators could be larger than the group of 166 facility owners and operators identified by the EPA due to the proposed threshold of 2.7 tons (2,455 kilograms) of VOC emissions per 12-month rolling period, before consideration of controls, for implementing the VOC emission control measures. This threshold is equivalent to an average daily emission rate of 15 pounds (6.8 kilograms) of VOC emissions per day, which is equivalent to the evaporation of approximately 2 gallons of VOC-containing industrial cleaning solvent per day. The Department therefore requested the assistance of the Commonwealth's Small Business Development Center's Environmental Management Assistance Program (EMAP) in generating a list of potentially affected businesses in this Commonwealth. The Department's assessment of the number of owners and operators of facilities potentially subject to proposed § 129.63a resulted from reviewing information obtained from the EMAP as well as information from databases maintained by the Department. The Department also reviewed the methodology of an analysis prepared in 2010 by E.H. Pechan & Associates, Inc. (Pechan) for the State of Texas. The Pechan analysis was used by Texas Department of Environmental Quality staff to assess the impact of their industrial cleaning solvents proposed rulemaking. The Department applied a process similar to the one used by Pechan in Texas to delineate the number of businesses in this Commonwealth that may be impacted by proposed § 129.63a.

The EPA listed 469 North American Industry Classification System (NAICS) codes for identifying businesses potentially covered by the 2006 ICS CTG recommendations. The complete list is found in the 2006 ICS CTG in Appendix C, "Summary of NAICS Codes for nonattainment facilities estimated to meet the applicability criteria recommended in this CTG." As noted by Pechan for the Texas Department of Environmental Quality, the list of NAICS codes provided by the EPA includes cleaning unit operations at source categories for which VOC emission control regulations already exist in Chapters 129 and 130. Further, it is important to note that a business owner or operator is allowed to select and report the NAICS code of its own choosing. Prior experience by Department staff has shown that this self-reporting of NAICS codes is

problematic when trying to accurately identify potentially affected facility owners and operators in this Commonwealth.

The EMAP provided the Department with a list of potentially affected businesses in this Commonwealth using the 469 NAICS codes included in the 2006 ICS CTG. The initial list identified 144,222 facilities of all sizes. It is likely that many of the facility owners and operators identified by the EMAP solely through the use of the EPA list of NAICS codes may be subject to other regulations in Chapter 129 or Chapter 130 and therefore are not subject to proposed § 129.63a. The Department cross-referenced the NAICS codes from the EMAP list of 144,222 facilities with the list of NAICS codes generated by Pechan as likely being subject to the Texas industrial cleaning solvents rulemaking. Ten NAICS codes from the Pechan report list were identified in the EMAP list. This cross-referencing reduced the number of potentially affected facility owners and operators in this Commonwealth to 45,718. From Pechan's analysis, it was further determined that only about 1.26% of identified facilities in Texas would be subject to the Texas industrial cleaning solvents rulemaking. Applying the same percentage to this Commonwealth's "universe" of 45,718, it is estimated that as many as 576 ($45,718 \times 1.26\%$) facility owners and operators in this Commonwealth may potentially be subject to proposed § 129.63a. Also from the Pechan analysis, it was determined that 44% of the potentially subject facilities in Texas were likely small businesses. Applying this percentage to the potentially subject group of 576 facility owners and operators identified by the EMAP, the Department estimated that 253 ($576 \times 44\%$) facility owners and operators may be small businesses.

The Department also gathered information about potentially affected facility owners and operators from the Environmental Facility Application Compliance Tracking System (eFACTS) database and the Air Information Management System (AIMS) database. These are Department permitting and air emissions databases that share data and interface with each other. The eFACTS database contains facility-specific information, including the NAICS code, for permitted facilities and for some previously inspected facilities for which permits are not required. The AIMS database contains site-specific source and air pollutant emissions data, as well as NAICS codes, to maintain the air pollutant emissions inventory. The eFACTS and AIMS database systems do not provide an exhaustive list of all facility owners and operators that conduct industrial cleaning solvent activities in this Commonwealth. The databases include only those facility owners and operators with which the Department has had contact and for which the Department has a reason to input data; these are usually the largest emitters of air pollutants, which may or may not meet the definition of "small business" in accordance with section 3 of the Regulatory Review Act (71 P.S. § 745.3). This database analysis revealed that the owners or operators of approximately 3,154 facilities in this Commonwealth have a permit issued by the Department that includes provisions for the control of VOC emissions from industrial cleaning solvent processes. Using the factor of 1.26% developed by Pechan for the Texas analysis, the Department estimates that approximately 40 ($1.26\% \times 3,154$) of these permitted facility owners and operators would be subject to proposed § 129.63a. The remaining 3,114 permitted facility owners and operators are likely subject to cleaning solvent requirements elsewhere in Chapter 129 or Chapter 130 and therefore are reflected in the exceptions listed in proposed subsection (c). Of the potentially affected 40

permitted facility owners and operators, the Department applied the 44% factor developed by Pechan to calculate that as many as 18 (40 × 44%) facility owners and operators identified from the Department's databases may be small businesses.

The draft proposed Annex A was initially discussed with the advisory committees in 2014. The Air Quality Technical Advisory Committee (AQTAC) was briefed on the draft proposed Annex A on February 20, 2014. AQTAC voted six-four-one to concur with the Department's recommendation to move the proposed rulemaking forward to the Board with consideration of the comments and concerns, including exemptions and exceptions for feasibility and technical concerns for specialty industries, discussed at the meeting. The draft proposed Annex A was discussed with the Small Business Compliance Advisory Committee (SBCAC) on April 23, 2014. The SBCAC voted unanimously to concur with the Department's recommendation to forward the proposed rulemaking to the Board, with consideration of flexibility for small businesses. In addition, the draft proposed Annex A was discussed with the Citizens Advisory Council's (CAC) Policy and Regulatory Oversight Committee on May 6, 2014. On the recommendation of the Policy and Regulatory Oversight Committee, the CAC voted on June 17, 2014, to concur with the Department's recommendation to forward the proposed rulemaking to the Board for consideration.

After consideration of the comments and concerns discussed at the February 20, 2014, AQTAC meeting and the April 23, 2014, SBCAC meeting, and further research on the requirements of other states' regulations, the Department made revisions to the draft proposed Annex A and presented it to the advisory committees for a second time in 2016. Changes to the draft Annex A language for proposed § 129.63a were made to address AQTAC concerns about the emission reduction implementation threshold, exceptions and exemptions, daily recordkeeping and clarity of language, as well as provide greater flexibility for small businesses as requested by the SBCAC. These changes included revising the threshold for implementation of the VOC emission reduction measures from the EPA's recommended 15 pounds (6.8 kilograms) of VOC emissions per day, before consideration of controls, to 2.7 tons (2,455 kilograms) of VOC emissions over a 12-month rolling period, before consideration of controls. The emission of 2.7 tons (2,455 kilograms) of VOCs per 12-month rolling period is equivalent to an average daily emission rate of 15 pounds (6.8 kilograms) of VOC emissions per day, which is equivalent to the evaporation of approximately 2 gallons of VOC-containing industrial cleaning solvent per day. The threshold of 2.7 tons (2,455 kilograms) per 12-month rolling period will provide greater flexibility for small businesses by providing the opportunity to average subject emissions over 12 months by adding the most recent month of data to the 12-month rolling period and dropping the oldest month of data. An exemption provision was added for the use or application of a noncomplying industrial cleaning solvent that is subject to a standard or specification required by the United States Department of Defense, Federal Aviation Administration or other Federal government entity. Technical feasibility concerns for screen printers were also addressed under exceptions and exemptions by specifying that an industrial cleaning solvent used or applied for the cleaning of screen printing equipment has an as applied VOC content that does not exceed 4.2 lb VOC/gal (500 g VOC/l) of industrial cleaning solvent. Digital printing was also added to the list of exceptions and exemptions, as well as the cleaning of resin, coating, ink

or adhesive mixing, and molding and application equipment. The revised draft proposed Annex A also included minor clarifying changes to § 129.73 to correct a numbering error. Amendments are not proposed to emission limits or other substantive requirements in § 129.73.

The revised draft proposed Annex A was discussed with the AQTAC on February 11, 2016. AQTAC voted 15-2-0 to concur with the Department's recommendation to present the proposed rulemaking to the Board for consideration for adoption and publication as a proposed rulemaking for public comment. The revised draft proposed Annex A was discussed with the CAC's Policy and Regulatory Oversight Committee on March 2, 2016. On the recommendation of the Policy and Regulatory Oversight Committee, the CAC voted on March 15, 2016, to concur with the Department's recommendation to forward the proposed rulemaking to the Board for consideration. The revised draft proposed Annex A was discussed with the SBCAC on April 27, 2016. The SBCAC again voted unanimously to concur with the Department's recommendation to forward the proposed rulemaking to the Board for consideration.

Advisory committee meetings are advertised and open to the public.

The proposed amendments to §§ 129.96, 129.97, 129.99 and 129.100 were added after the revised draft proposed Annex A was discussed with the advisory committees. The minor clarifying amendments are made in response to the adoption of the RACT 2 regulations. Amendments are not proposed to the emission limits or other substantive requirements in these sections.

Additionally, after the revised draft proposed Annex A was discussed with the advisory committees, a revision was made to proposed § 129.63a(h)(1)(i)(C) and (D) to clarify that the composite vapor pressure of the complying industrial cleaning solvent as supplied and as applied shall be determined in accordance with subsections (i) and (j). A revision was made to subsection (h)(2)(ii) to clarify that the composite vapor pressure as applied for the exempt industrial cleaning solvent shall be determined in accordance with subsections (i) and (j). A revision was made to subsection (h)(3)(ii) to clarify that the composite vapor pressure as applied for the screen printing equipment industrial cleaning solvent shall be determined in accordance with subsections (i) and (j). A revision was made to add subsection (i)(3) to specify that the composite vapor pressure of organic compounds in cleaning unit operation industrial cleaning solvents may be determined through documentation provided by the manufacturer of the industrial cleaning solvent, including a Material Safety Data Sheet (MSDS), Certified Product Data Sheet (CPDS) or other data certified by the manufacturer. A revision was also made to add subsection (j)(3) to specify that the vapor pressure of each single component compound in a cleaning unit operation industrial cleaning solvent may be determined through documentation provided by the manufacturer of the single component compound, including an MSDS, CPDS or other data certified by the manufacturer. These revisions were made in response to a question asked by an AQTAC member at the February 11, 2016, meeting.

E. Summary of Regulatory Requirements

§ 121.1. Definitions

An error in the definition of "cleaning solvent" is proposed to be corrected by adding a comma.

§ 129.51. *General*

Subsection (a) is proposed to be amended to establish that compliance with proposed § 129.63a may be achieved by alternative methods.

Subsection (a)(3) is proposed to be amended to establish that compliance with the applicable emission limitation in proposed § 129.63a by a method other than the use of compliant materials shall be determined on the basis of equal volumes of solids.

Subsection (a)(6) is proposed to be amended to establish that the alternative compliance method must be incorporated into a plan approval or operating permit, or both, reviewed by the EPA, including the use of an air cleaning device to comply with proposed § 129.63a.

§ 129.63a. *Control of VOC emissions from industrial cleaning solvents*

Under subsection (a), this proposed section would apply to the owner and the operator of a facility at which an industrial cleaning solvent is used or applied in a cleaning activity at a cleaning unit operation, a work production-related work area or a part, product, tool, machinery, equipment, vessel, floor or wall.

Subsection (b) would establish definitions of "cleaning activity," "cleaning unit operation," "industrial cleaning solvent" and "regulated VOC" to be used in this section.

Subsection (c) would establish exceptions and exemptions for specific circumstances. The list of exceptions under subsection (c)(1) includes cleaning unit operations subject to § 129.63 (relating to degreasing operations) or 40 CFR Part 63, Subpart T (relating to National emission standards for halogenated solvent cleaning), cleaning unit operations associated with a source category covered by an existing regulation elsewhere in Chapter 129 or Chapter 130 and cleaning unit operations associated with certain other specified source categories. Subsection (c)(2) would establish that the VOC emission limitations of subsection (e) do not apply to the use or application of a noncomplying industrial cleaning solvent by the owner or operator of a cleaning unit operation at a facility subject to subsection (a) that uses or applies a noncomplying industrial cleaning solvent subject to a standard or specification required by a Federal government entity or that uses or applies a noncomplying industrial cleaning solvent associated with the cleaning of screen printing equipment when the as applied industrial cleaning solvent VOC content is 4.2 lb VOC/gal (500 g VOC/l) of industrial cleaning solvent or less. Subsection (c)(3) would establish that the VOC emission limitations of subsection (e) and the work practice requirements of subsection (f) do not apply to the owner or operator of a facility subject to subsection (a) if the total combined actual VOC emissions from all subject cleaning unit operations at the facility are less than 2.7 tons (2,455 kilograms) per 12-month rolling period, before consideration of controls. These owners and operators would still be subject to the recordkeeping and reporting requirements of subsection (h).

The Board is requesting comment on the need to establish an exemption for the use and application of an industrial cleaning solvent subject to a standard or specification required by a plastic recycling operation.

Subsection (d) would establish that the requirements of this section supersede the requirements of a RACT permit issued to the owner or operator of a cleaning unit operation subject to this section prior to the effective date of adoption of this proposed rulemaking under

§§ 129.91–129.95 (relating to stationary sources of NO_x and VOCs) to control, reduce or minimize VOCs from cleaning unit operation cleaning activities at the facility, except to the extent the RACT permit contains more stringent requirements.

Subsection (e) would establish that, beginning with the effective date of adoption of this proposed rulemaking, the owner or operator of a facility at which the total combined actual VOC emissions from all subject cleaning unit operations at the facility are equal to or greater than 2.7 tons (2,455 kilograms) per 12-month rolling period, before consideration of controls, may not cause or permit the emission into the outdoor atmosphere of VOCs from an industrial cleaning solvent used or applied in a cleaning unit operation subject to this section at the facility, unless the industrial cleaning solvent meets one of the two specified emissions limitation options. The first emissions limitation option is to use an industrial cleaning solvent with either a VOC content less than or equal to 0.42 lb VOC/gal (50 g VOC/l) as applied or a VOC composite vapor pressure less than or equal to 8 mm mercury at 68°F (20°C) as applied. The second emissions limitation option is to use a VOC emissions capture system and an add-on air pollution control device that is acceptable under § 129.51(a) to reduce the weight of VOCs emitted to the atmosphere from cleaning unit operation cleaning activities. The overall emission reduction of a control system, as determined by the test methods and procedures specified in Chapter 139 (relating to sampling and testing), may not be less than 85% or may not be less than the equivalent efficiency as calculated by the specified equation, whichever is less stringent. As with all RACT regulations, an owner or operator with VOC emissions at or above the threshold to implement the VOC emission control measures would remain subject to the VOC emission control requirements of proposed § 129.63a even if the VOC emissions from the affected sources fall below the emissions threshold for implementation of the VOC emission control measures.

Proposed § 129.63a would establish an emissions threshold of 2.7 tons (2,455 kilograms) of VOC per 12-month rolling period, before consideration of controls, for consistency with other regulations in Chapter 129 and with SIP-approved requirements in other states. Emission levels at, above and below this threshold would determine with which other specified requirements a subject facility owner or operator would need to comply, including VOC emission limitations, work practice requirements, and recordkeeping and reporting requirements. The emission of 2.7 tons (2,455 kilograms) of VOCs per 12-month rolling period is equivalent to an average daily emission rate of 15 pounds (6.8 kilograms) per day, which is equivalent to the evaporation of approximately 2 gallons of industrial cleaning solvent per day. The Board is requesting comment on whether the emissions threshold should be established at 15 pounds (6.8 kilograms) of VOC per day as recommended by the 2006 ICS CTG. The proposed emissions threshold of 2.7 tons (2,455 kilograms) per 12-month rolling period would provide greater flexibility for small businesses by providing the opportunity to average subject emissions over 12 months by adding the most recent month of data to the 12-month rolling period and dropping the oldest month of data. An affected owner or operator with 1 day or more of VOC emissions higher than 15 pounds (6.8 kilograms) could average those emissions over the month and the 12-month rolling period to maintain an emission rate that would be below the 2.7 tons (2,455 kilograms) per 12-month rolling period and thereby not be required to

implement the VOC emission control measures. If the threshold for implementing the VOC emission controls is 15 pounds (6.8 kilograms) per day, an affected owner or operator with just 1 day of 15 pounds (6.8 kilograms) or more of emissions would be required to implement the VOC emission control measures, regardless of whether the level of emissions on the other days of operation is consistently below the 15 pounds (6.8 kilograms) per day.

Subsection (f) would establish work practice requirements for industrial cleaning solvents, used shop towels and waste materials.

Subsection (g) would establish requirements for affected owners and operators to demonstrate compliance.

Subsection (h) would establish recordkeeping and reporting requirements.

Subsection (i) would establish procedures for determining the composite vapor pressure of organic compounds in cleaning unit operation industrial cleaning solvents.

Subsection (j) would establish procedures for determining the vapor pressure of each single component compound in a cleaning unit operation industrial cleaning solvent.

Subsection (k) would establish ASTM method references.

§ 129.73. Aerospace manufacturing and rework

Table II (relating to allowable content of VOCs in aerospace coatings) is proposed to be amended to correct a numbering error. The coating type "high-temperature coating" was numbered incorrectly as (20)(a) and is proposed to be renumbered as (21). The succeeding coating types would be renumbered accordingly. The title of Table II is proposed to be amended to delete the redundant phrase "allowable VOC content." No other amendments are proposed to this section.

§ 129.96. Applicability

§ 129.97. Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule

§ 129.99. Alternative RACT proposal and petition for alternative compliance schedule

§ 129.100. Compliance demonstration and recordkeeping requirements

Minor clarifying amendments are proposed for §§ 129.96, 129.97, 129.99 and 129.100 under the recently promulgated regulations for additional RACT requirements for major sources of NO_x and VOCs to update the list of presumptive VOC RACT regulations for which RACT 2 does not apply and to clarify certain requirements.

Section 129.96(a) and (b) (relating to applicability) is proposed to be amended to revise the list of regulations under which a presumptive RACT requirement or presumptive RACT emission limitation, or both, has been established from "§§ 129.51—129.52c" to "§§ 129.51—129.52e" and from "§§ 129.71—129.73, 129.75" to "§§ 129.71—129.75" to add recently promulgated §§ 129.52d, 129.52e and 129.74 (relating to control of VOC emissions from miscellaneous metal parts surface coating processes, miscellaneous plastic parts surface coating processes and pleasure craft surface coatings; control of VOC emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations; and control of VOC emissions from fiberglass boat manufacturing materials).

Sections 129.97(k)(1)(ii) and 129.99(i)(1)(ii) (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule; and alternative RACT proposal and petition for alternative compliance schedule are proposed to be amended to add "or major VOC emitting facility" for clarity.

Section 129.100(a) (relating to compliance demonstration and recordkeeping requirements) is proposed to be amended to add "RACT" in two places for clarity.

Amendments to the emission limits or other substantive requirements in these four sections are not proposed.

F. Benefits, Costs and Compliance

Benefits

The Department estimates that the owners and operators of as many as 576 facilities across this Commonwealth may potentially be subject to proposed § 129.63a, of which as many as 253 may meet the definition of "small business" in section 3 of the Regulatory Review Act. It is possible that far fewer than 576 facility owners and operators would be subject to this proposed section, depending on if the VOC emissions are from a cleaning unit operation subject to an existing regulation in Chapter 129 or Chapter 130, or qualify for an exemption under proposed subsection (c).

Using data from the 2002 National Emissions Inventory database, the EPA provides in the 2006 ICS CTG that of the total VOC emissions from solvent cleaning operations Nationally (64,000 megagrams per year (Mg/yr); 71,000 tons per year (tpy)), approximately 4,000 Mg/yr (4,400 tpy) were from degreasing operations that use industrial cleaning solvents. The Department regulates the VOC emissions from degreasing operations under § 129.63. The remaining 60,000 Mg/yr (66,600 tpy) were from the other solvent cleaning activities that are the subject of proposed § 129.63a. Therefore, of the total VOC emissions from solvent cleaning operations of 71,000 tpy, approximately 6% of those emissions were from degreasing operations and approximately 94% were from other industrial cleaning solvent cleaning activities.

The EPA estimated that 166 facilities in this Commonwealth would be affected by the recommended 2006 ICS CTG control measures, with baseline total emissions of VOC of 3,660 Mg/yr. The 3,660 Mg/yr converts to 4,034 tpy. Prorating this amount of emissions to the Department's estimated group of 576 potentially affected facility owners and operators projects total VOC emissions of as much as 13,997 tpy (576 facilities/X tpy = 166 facilities/4,034 tpy) if the VOC emissions from subject cleaning activities are not already controlled. Of the total projected VOC emissions of 13,997 tpy from the potentially affected group of 576 facility owners and operators, as much as 13,157 tpy (13,997 tpy × 94%) may be from the other solvent cleaning activities addressed by proposed § 129.63a.

The EPA assumed that the average VOC concentration of high VOC-content solvents is 900 g VOC/l of solvent. The EPA-recommended VOC emission control limit for an industrial cleaning solvent is a VOC concentration of 50 g VOC/l. The use of an industrial cleaning solvent with a VOC content of 50 g VOC/l would be a reduction of approximately 95% or 95% control efficiency ((900 g/l—50 g/l) / 900 g/l) × 100 = 95%).

The Department estimated the maximum amount of potential VOC emission reductions that may be generated through implementation of the control measures in proposed § 129.63a by using the EPA's control efficiency of

95% times the estimated projected amount of total VOC emissions of 13,157 tpy. The estimated amount of VOC emission reductions from the potentially affected 576 facility owners and operators, including small businesses, could be as much as 12,499 tpy (13,157 tpy × 95%). The estimated average amount of potential VOC emission reductions per affected owner and operator could be approximately 22 tpy per affected facility (12,499 tpy/576 facilities). The amount of VOC emission reductions achieved by implementing these control measures could be less depending on the level of compliance already demonstrated by the affected facility owners and operators.

The Statewide implementation of the VOC emission control measures in proposed § 129.63a would benefit the health and welfare of the approximately 12.77 million residents and the numerous animals, crops, ecosystems and natural areas of this Commonwealth by reducing emissions of VOCs, which are precursors to the formation of ground-level ozone air pollution. Exposure to high concentrations of ground-level ozone is a serious human and animal health and welfare threat, causing respiratory illnesses and decreased lung function as well as other adverse health effects leading to a lower quality of life. Reduced ambient concentrations of ground-level ozone would reduce the incidences of hospital admissions for respiratory ailments including asthma and improve the quality of life for citizens overall. While children, the elderly and those with respiratory problems are most at risk, even healthy individuals may experience increased respiratory ailments and other symptoms when they are exposed to high levels of ambient ground-level ozone while engaged in activities that involve physical exertion. High levels of ground-level ozone affect animals, including pets, livestock and wildlife, in ways similar to humans.

In addition to causing adverse human and animal health effects, the EPA has concluded that high levels of ground-level ozone affect vegetation and ecosystems leading to: reductions in agricultural crop and commercial forest yields by destroying chlorophyll; reduced growth and survivability of tree seedlings; and increased plant susceptibility to disease, pests and other environmental stresses, including harsh weather. In long-lived species, these effects may become evident only after several years or even decades and have the potential for long-term adverse impacts on forest ecosystems. Ozone damage to the foliage of trees and other plants can decrease the aesthetic value of ornamental species used in residential landscaping, as well as the natural beauty of parks and recreation areas.

The Statewide implementation of the control measures in proposed § 129.63a would assist the Department in reducing VOC emissions from the specified industrial cleaning solvents activities locally and reducing the resultant local formation of ground-level ozone and transport of VOC emissions and ground-level ozone to downwind states. Statewide implementation would also facilitate enforcement of proposed § 129.63a within this Commonwealth. The measures in proposed § 129.63a are reasonably necessary to attain and maintain the health-based and welfare-based 8-hour ozone NAAQS and to satisfy related CAA requirements in this Commonwealth.

Proposed § 129.63a may create economic opportunities for VOC emission control technology innovators, manufacturers and distributors through an increased demand for new or improved equipment. In addition, the owners and operators of regulated facilities may be required to install and operate an emissions monitoring system or equip-

ment necessary for an emissions monitoring method to comply with proposed § 129.63a, thereby creating an economic opportunity for the emissions monitoring industry.

On February 3, 2017, the EPA published a finding that the District of Columbia and 15 states, including the Commonwealth, failed to submit SIP revisions in a timely manner to satisfy certain requirements for the 2008 ozone NAAQS that apply to the OTR. See 82 FR 9158 (February 3, 2017). The finding related to the Commonwealth is based on its failure to submit certain required RACT SIP elements, including RACT for industrial cleaning solvents, by July 20, 2014. See 82 FR 9158, 9160. The effective date of the finding of failure to submit is March 6, 2017. The Commonwealth must submit the missing SIP elements to the EPA by 18 months from the effective date, or September 6, 2018. The timely submission of a SIP revision based on this proposed rulemaking, when promulgated, is necessary to avoid costs to the Commonwealth from potential sanctions imposed by the EPA under section 179 of the CAA (42 U.S.C.A. § 7509), including the costs of additional offsets for new or modified sources of emissions and costs related to the loss of Federal highway funding.

The proposed amendments to §§ 121.1, 129.51, 129.73, 129.96, 129.97, 129.99 and 129.100 are clarifying amendments only. These proposed amendments would not change the social or environmental impact of these sections on the health and welfare of the residents and the ecosystems and natural areas of this Commonwealth or the regulated community. The benefits of these proposed revisions would be improved clarity.

Compliance costs

Using the EPA cost number of \$1,453 as the baseline for annual operating costs and the cost range of \$1,171 to \$1,480 to implement the recommended control measures in proposed § 129.63a, the estimated combined total economic impact for the owners and operators of the estimated 576 potentially affected facilities, including small businesses, ranges from annual costs of as low as \$15,552 to total annual savings of \$162,432. The annual financial impact on potentially affected facility owners and operators could range from an average savings of \$282 per affected facility owner and operator to an average cost of \$27 per affected facility owner and operator. The cost effectiveness could range from a savings of approximately \$12.99 per ton of VOC emissions reduced per year (\$162,432 total savings/12,499 tons of total VOC emissions reduced per year) to a cost of approximately \$1.24 per ton of VOC emissions reduced per year (\$15,552 costs/12,499).

The monetized health benefits to residents in this Commonwealth and the economic benefits to agricultural, hardwoods and tourism industries in this Commonwealth as a result of attaining and maintaining the ground-level 8-hour ozone NAAQS, achieved in part through reduced emissions of ozone precursors from the use of compliant industrial cleaning solvents in this Commonwealth, are considerable in comparison to the costs that would be incurred by the owners and operators of potentially subject facilities to comply with proposed § 129.63a. The EPA has estimated the monetized health benefits of attaining the 2008 and 2015 ozone NAAQS. The EPA estimated that the monetized health benefits of attaining the 2008 8-hour ozone NAAQS of 0.075 ppm range from \$8.3 billion to \$18 billion on a National basis by 2020. See "Regulatory Impact Analysis—Final National Ambient Air Quality Standard for Ozone," July 2011. Prorating that

benefit to this Commonwealth, based on population, results in a public health benefit of \$337 million to \$732 million. Similarly, the EPA estimated that the monetized health benefits of attaining the 2015 8-hour ozone NAAQS of 0.070 ppm range from \$1.5 billion to \$4.5 billion on a National basis by 2025. See "Regulatory Impact Analysis of the Final Revisions to the National Ambient Air Quality Standards for Ground-Level Ozone," September 2015. Prorating that benefit to this Commonwealth, based on population, results in a public health benefit of \$63 million to \$189 million. These estimated monetized health benefits would not all be the result of implementing the RACT measures in proposed § 129.63a, but the EPA estimates are indicative of the benefits to residents in this Commonwealth of attaining and maintaining the 2008 and 2015 8-hour ozone NAAQS through the implementation of a suite of measures to control VOC emissions in the aggregate from different source categories.

The estimated combined total economic impact for the owners and operators of the 576 potentially affected facilities ranges from annual costs of \$15,552 to total annual savings of \$162,432. The worst-case scenario of annual costs of \$15,552 for the affected owners and operators is very small in comparison to the potential economic gains in public health and welfare to residents in this Commonwealth of attaining and maintaining the 8-hour ozone NAAQS. The estimated annual financial impact on potentially affected facility owners and operators, including small businesses, could range from an average annual savings of \$282 per affected facility owner and operator to an average annual cost of \$27 per affected facility owner and operator, again a very small financial impact on the regulated community in comparison to the potential economic gains in public health and welfare.

The negative impacts on individuals, small businesses, labor communities and the regulated community are expected to be minimal to none. The owner and operator of an affected facility would likely incur savings or, in the worst case scenario, little-to-no cost to implement the requirements of proposed § 129.63a. Common industrial cleaning solvents, such as Stoddard solvent, mineral spirits and other common solvents provided by suppliers, have vapor pressures well below the 8 mm mercury limit in proposed § 129.63a. The owners and operators of potentially affected facilities such as automobile repair garages and metal parts manufacturing facilities, as well as other common manufacturing facilities already using these materials, would not likely need to make any changes to their industrial cleaning solvent materials.

Because of the wide availability and lower cost (compared to the installation and operation of a VOC emissions capture system and an add-on air pollution control device) of compliant VOC content industrial cleaning solvent materials, these are generally used to reduce VOC emissions from industrial cleaning solvent activities. The regulated industry in this Commonwealth is expected to realize cost savings because low-VOC content industrial cleaning solvent materials are readily available at a cost that is lower than the high-VOC content industrial cleaning solvent materials they replace as a result of similar requirements already in effect in neighboring states.

The VOC emission limitations established by proposed § 129.63a would not require the submission of applications for amendments to existing operating permits. These requirements would be incorporated as applicable

requirements at the time of permit renewal, if less than 3 years remain in the permit term, as specified under § 127.463(c) (relating to operating permit revisions to incorporate applicable standards). If 3 years or more remain in the permit term, the requirements would be incorporated as applicable requirements in the permit within 18 months of the promulgation of the final-form rulemaking, as required under § 127.463(b). Most importantly, § 127.463(e) specifies that "[r]egardless of whether a revision is required under this section, the permittee shall meet the applicable standards or regulations promulgated under the Clean Air Act within the time frame required by standards or regulations." Consequently, upon adoption, proposed § 129.63a would apply to affected owners and operators irrespective of a modification to the operating permit.

The proposed amendments to §§ 121.1, 129.51, 129.73, 129.96, 129.97, 129.99 and 129.100 are clarifying amendments only. These proposed amendments would not change the financial impact of these sections on affected persons or the regulated community. The benefits of these proposed amendments would be improved clarity.

New legal, accounting or consulting procedures would not be required to comply with this proposed rulemaking.

Compliance assistance plan

The Department plans to educate and assist the public and regulated community in understanding the proposed requirements and how to comply with them. This would be accomplished through the Department's ongoing compliance assistance program. The Department would also work with the Small Business Assistance Program to aid the owners and operators of facilities less able to handle permitting matters with in-house staff.

Paperwork requirements

The owner and operator of a cleaning unit operation subject to proposed § 129.63a would be required to keep records of specified information for industrial cleaning solvent materials, as applicable, sufficient to demonstrate compliance with the applicable requirements of this section for the emission levels at, above and below the threshold of 2.7 tons (2,455 kilograms) of VOC emissions per 12-month rolling period, before consideration of controls. Demonstration of VOC emission levels at, above and below this threshold would determine with which other specified requirements a subject facility owner or operator would need to comply, including work practice requirements, compliance demonstration requirements and recordkeeping and reporting requirements. Proposed § 129.63a would establish monthly recordkeeping requirements of specified parameters of industrial cleaning solvents, including VOC content and composite vapor pressure, for the owner and operator of an affected facility, regardless of the total amount of combined actual VOC emissions from subject industrial cleaning solvent unit operations at the facility. Records of operating parameters would be required of the owner and operator of an affected facility if a VOC emissions capture system and an add-on air pollution control device are used to ensure compliance. Recordkeeping requirements are expected to be minimal for the affected facility owners and operators; the recordkeeping requirements for many affected facility owners and operators would likely be met by using the monthly purchase records and material safety data sheets that most facility owners and operators already keep for other purposes. Records shall be maintained onsite for 2 years, unless a longer period is required under Chapter 127 (relating to construction,

modification, reactivation and operation of sources) or a plan approval, operating permit, consent decree or order issued by the Department. Records shall be submitted to the Department in an acceptable format upon receipt of a written request from the Department.

The proposed amendments to §§ 121.1, 129.51, 129.73, 129.96, 129.97, 129.99, and 129.100 are clarifying amendments only. These proposed amendments would likely not change the legal, accounting, consulting or recordkeeping and reporting impact of these sections on the regulated entities.

G. Pollution Prevention

The Pollution Prevention Act of 1990 (42 U.S.C.A. §§ 13101—13109) established a National policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally friendly materials, more efficient use of raw materials and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to facility owners and operators that permanently achieve or move beyond compliance.

Statewide implementation of the VOC emission control measures in proposed § 129.63a could generate reductions of as much as 12,499 tons of VOC emissions per 12-month rolling period from the potentially affected 576 facilities, depending on the level of compliance already demonstrated by the owners and operators of these facilities. These projected estimated reductions in VOC emissions and the subsequent reduced formation of ozone would help ensure that the owners and operators of regulated facilities, farms and agricultural enterprises, hardwoods and timber industries, and tourism-related businesses, and residents of labor communities and citizens and the environment of this Commonwealth experience the benefits of improved ground-level ozone air quality. Commonwealth residents would also potentially benefit from improved groundwater quality through reduced quantities of VOCs and hazardous air pollutants (HAP) from low-VOC content and low-HAP content industrial cleaning solvent materials. Although proposed § 129.63a is designed primarily to address ozone air quality, the reformulation of high-VOC content cleaning solvent materials to low-VOC content cleaning solvent materials or substitution of low-VOC content cleaning solvent materials to meet the VOC content limits applicable to users may also result in reduction of HAP emissions, which are also a serious health threat. The reduced levels of high-VOC content and high-HAP content cleaning solvents would benefit groundwater quality through reduced loading on water treatment plants and in reduced quantities of high-VOC content and high-HAP content cleaning solvents leaching into the ground, streams and rivers.

Proposed § 129.63a(e)(1) provides as one compliance option the use of compliant industrial cleaning solvent materials. Industrial cleaning solvent materials that are compliant with the proposed VOC content limit and composite vapor pressure limit are readily available to the owners and operators of all sizes of subject facilities. Proposed § 129.63a(e)(2) would provide flexibility in compliance through the second option of installing and operating a VOC emissions capture system and an add-on air pollution control device with an overall control efficiency

of at least 85% or no less than the equivalent efficiency calculated using the specified equation.

This proposed rulemaking also provides flexibility to the owners and operators potentially affected by proposed § 129.63a by amending § 129.51(a) to extend its applicability to the owner and operator of a coating operation subject to proposed § 129.63a. Section 129.51(a) authorizes the owner or operator to achieve compliance through an alternative method, which would achieve VOC emission reductions equal to or greater than those achieved by compliance with the proposed control measures, by submitting the alternative method to the Department for review and approval in an applicable plan approval or operating permit, or both.

However, because of the wide availability and lower cost (compared to installation and operation of VOC emissions capture systems and add-on air pollution control devices) of compliant VOC content and composite vapor pressure cleaning solvent materials, compliant cleaning solvent materials are generally expected to be used by affected owners and operators to reduce VOC emissions from industrial cleaning solvent activities subject to proposed § 129.63a.

The implementation of the work practices for the use and application of industrial cleaning solvent materials is expected to result in a net cost savings. The recommended work practices for industrial cleaning solvent activities should reduce the amounts of industrial cleaning solvent materials used by reducing the amounts that are lost to evaporation, spillage and waste.

The proposed amendments to §§ 121.1, 129.51, 129.73, 129.96, 129.97, 129.99 and 129.100 are clarifying amendments only. These proposed amendments would not change the pollution prevention impact of these sections.

H. Sunset Review

The Board is not establishing a sunset date for this proposed rulemaking, since it is needed for the Department to carry out its statutory authority. The Department will continue to closely monitor these regulations for effectiveness and recommend updates to the Board as necessary.

I. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on May 31, 2017, the Department submitted a copy of this proposed rulemaking and a copy of a Regulatory Analysis Form to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the House and Senate Environmental Resources and Energy Committees. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRC may convey comments, recommendations or objections to the proposed rulemaking within 30 days of the close of the public comment period. The comments, recommendations or objections must specify the regulatory review criteria in section 5.2 of the Regulatory Review Act (71 P.S. § 745.5b) which have not been met. The Regulatory Review Act specifies detailed procedures for review prior to final publication of the rulemaking by the Department, the General Assembly and the Governor.

J. Public Comments

Interested persons are invited to submit written comments, suggestions, support or objections regarding the proposed rulemaking to the Board. In particular, comments are requested on specific questions discussed in

Section E, including the need for an exemption in proposed § 129.63a(c) regarding plastic recycling operations and the use of a VOC applicability threshold based on daily emissions rather than emissions per a 12-month rolling period. Comments, suggestions, support or objections must be received by the Board by August 21, 2017.

Comments may be submitted to the Board online, by e-mail, by mail or express mail as follows.

Comments may be submitted to the Board by accessing eComment at <http://www.ahs.dep.pa.gov/eComment>.

Comments may be submitted to the Board by e-mail at RegComments@pa.gov. A subject heading of the proposed rulemaking and a return name and address must be included in each transmission.

If an acknowledgement of comments submitted online or by e-mail is not received by the sender within 2 working days, the comments should be retransmitted to the Board to ensure receipt. Comments submitted by facsimile will not be accepted.

Written comments should be mailed to the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477. Express mail should be sent to the Environmental Quality Board, Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301.

K. Public Hearings

The Board will hold three public hearings for the purpose of accepting comments on this proposed rulemaking. The hearings will be held at 1 p.m. on the following dates:

- July 18, 2017 Department of Environmental Protection
Southeast Regional Office
4th Floor Hearing Room
2 East Main Street
Norristown, PA 19401
- July 19, 2017 Department of Environmental Protection
Southwest Regional Office
Waterfront Conference Rooms A and B
400 Waterfront Drive
Pittsburgh, PA 15222
- July 20, 2017 Department of Environmental Protection
Rachel Carson State Office Building
Conference Room 105
400 Market Street
Harrisburg, PA 17105

Persons wishing to present testimony at a hearing are requested to contact the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477, (717) 787-4526 at least 1 week in advance of a hearing to reserve a time to present testimony. Oral testimony is limited to 5 minutes for each witness. Witnesses are requested to submit three written copies of their oral testimony to the hearing chairperson at the hearing. Organizations are limited to designating one witness to present testimony on their behalf at each hearing.

Persons in need of accommodations as provided for in the Americans with Disabilities Act of 1990 should contact the Board at (717) 787-4526 or through the Pennsylvania AT&T Relay Service at (800) 654-5984 (TDD) or (800) 654-5988 (voice users) to discuss how the Board may accommodate their needs.

PATRICK McDONNELL,
Chairperson

Fiscal Note: 7-492. No fiscal impact; (8) recommends adoption.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION
PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart C. PROTECTION OF NATURAL RESOURCES

ARTICLE III. AIR RESOURCES

CHAPTER 121. GENERAL PROVISIONS

§ 121.1. Definitions.

The definitions in section 3 of the act (35 P.S. § 4003) apply to this article. In addition, the following words and terms, when used in this article, have the following meanings, unless the context clearly indicates otherwise:

* * * * *

Cleaning solvent—A liquid material used for hand-wipe, spray gun or flush cleaning. The term includes solutions that contain VOCs.

* * * * *

CHAPTER 129. STANDARDS FOR SOURCES

SOURCES OF VOCs

§ 129.51. General.

(a) *Equivalency.* Compliance with §§ 129.52, 129.52a, 129.52b, 129.52c, 129.52d, 129.52e, 129.54—**129.63**, **129.63a**, **129.64**—129.67, 129.67a, 129.67b, 129.68, 129.69, 129.71—129.73 and 129.77 may be achieved by alternative methods if **all of** the following exist:

(1) The alternative method is approved by the Department in an applicable plan approval or operating permit, or both.

(2) The resulting emissions are equal to or less than the emissions that would have been discharged by complying with the applicable emission limitation.

(3) Compliance by a method other than the use of a low VOC coating, adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent, cleanup solvent, cleaning solution, fountain solution or ink which meets the applicable emission limitation in §§ 129.52, 129.52a, 129.52b, 129.52c, 129.52d, 129.52e, **129.63a**, 129.67, 129.67a, 129.67b, 129.73 and 129.77 shall be determined on the basis of equal volumes of solids.

(4) Capture efficiency testing and emissions testing are conducted in accordance with methods approved by the EPA.

(5) Adequate records are maintained to ensure enforceability.

(6) The alternative compliance method is incorporated into a plan approval or operating permit, or both, reviewed by the EPA, including the use of an air cleaning device to comply with § 129.52, § 129.52a, § 129.52b, § 129.52c, § 129.52d, § 129.52e, **§ 129.63a**, § 129.67, § 129.67a, § 129.67b, § 129.68(b)(2) and (c)(2), § 129.73 or § 129.77.

* * * * *

(*Editor's Note:* The following section is proposed to be added and printed in regular type to enhance readability.)

§ 129.63a. Control of VOC emissions from industrial cleaning solvents.

(a) *Applicability.* This section applies to the owner and the operator of a facility at which an industrial cleaning solvent is used or applied in a cleaning activity at a cleaning unit operation, a work production-related work area or a part, product, tool, machinery, equipment, vessel, floor or wall.

(b) *Definitions.* The following words and terms, when used in this section, have the following meanings unless the context clearly indicates otherwise:

Cleaning activity—The use or application of an industrial cleaning solvent to remove a contaminant, such as an adhesive, ink, paint, dirt, soil, oil or grease, by wiping, flushing, brushing, soaking, spraying or a similar effort.

Cleaning unit operation—

(i) An operation at a facility that is a source of VOC emissions from a cleaning activity.

(ii) The term includes the following:

- (A) Spray gun cleaning.
- (B) Spray booth cleaning.
- (C) Large manufactured components cleaning.
- (D) Parts cleaning.
- (E) Equipment cleaning.
- (F) Line cleaning.
- (G) Floor cleaning.
- (H) Tank cleaning.
- (I) Small manufactured components cleaning.

(iii) The term does not include VOC emissions from the use or application of consumer products subject to Chapter 130, Subchapter B (relating to consumer products), including an institutional product or industrial and institutional product as defined in § 130.202 (relating to definitions) for cleaning offices, bathrooms or other areas that are not part of a cleaning unit operation or work production-related work area.

Industrial cleaning solvent—A product formulated with one or more regulated VOCs.

Regulated VOC—An organic compound which participates in atmospheric photochemical reactions, that is, an organic compound other than those which the Administrator of the EPA designates in 40 CFR 51.100 (relating to definitions) as having negligible photochemical reactivity.

(c) *Exceptions and exemptions.*

(1) This section does not apply to all of the following:

(i) An owner or operator of a cleaning unit operation subject to § 129.63 (relating to degreasing operations) or 40 CFR Part 63, Subpart T (relating to National emission standards for halogenated solvent cleaning).

(ii) An owner or operator of a cleaning unit operation associated with a following category:

- (A) Aerospace coatings.
- (B) Architectural coatings.
- (C) Automobile and light-duty truck assembly coatings.
- (D) Fabric coating.
- (E) Fiberglass boat manufacturing materials.
- (F) Flat wood paneling coatings.
- (G) Flexible packaging printing materials.

- (H) Graphic arts printing and coating operations.
- (I) Large appliance coatings.
- (J) Letterpress printing materials.
- (K) Lithographic printing materials.
- (L) Magnet wire coating operations.
- (M) Marine vessel coating.
- (N) Metal container, closure and coil coating.
- (O) Metal furniture coatings.
- (P) Miscellaneous metal parts coatings.
- (Q) Miscellaneous industrial adhesives.
- (R) Motor vehicle and mobile equipment coating operations.
- (S) Paper, film and foil coating.
- (T) Plastic parts coatings.
- (U) Polyester resin operations.
- (V) Semiconductor wafer fabrication operations.
- (W) Shipbuilding and repair coatings.
- (X) Wood furniture coatings.
- (Y) Wood products coating.
- (Z) Electrical and electronic components.
- (AA) Precision optics.
- (BB) Numismatic dies.
- (CC) Stripping of cured inks, coatings and adhesives.
- (DD) Cleaning of resin, coating, ink or adhesive mixing, molding and application equipment.
- (EE) Resin, coating, ink and adhesive manufacturing.
- (FF) Performance or quality assurance testing of coatings, inks or adhesives.
- (GG) Flexible and rigid disc manufacturing.
- (HH) Research and development laboratories.
- (II) Medical device manufacturing.
- (JJ) Pharmaceutical manufacturing.
- (KK) Janitorial cleaning.
- (LL) Digital printing.

(2) The VOC emission limitations in subsection (e) do not apply to the use or application of a noncomplying industrial cleaning solvent by the owner or operator of a cleaning unit operation at a facility subject to subsection (a) under either of the following circumstances:

(i) The use or application of the noncomplying industrial cleaning solvent is subject to a standard or specification required by the United States Department of Defense, Federal Aviation Administration or other Federal government entity. An owner or operator claiming this exemption shall maintain records in accordance with subsection (h)(2).

(ii) The use or application of the noncomplying industrial cleaning solvent is associated with the cleaning of screen printing equipment and the industrial cleaning solvent used or applied has an as applied VOC content that does not exceed 4.2 pounds of VOC per gallon (lb VOC/gal) (500 grams of VOC per liter (g VOC/l)) of industrial cleaning solvent. An owner or operator claiming this exemption shall maintain records in accordance with subsection (h)(3).

(3) The VOC emission limitations in subsection (e) and the work practice requirements in subsection (f) do not apply to the owner or operator of a facility subject to subsection (a) if the total combined actual VOC emissions from all subject cleaning unit operations at the facility are less than 2.7 tons (2,455 kilograms) per 12-month rolling period, before consideration of controls. An owner or operator claiming this exemption shall maintain records in accordance with subsection (h)(4).

(d) *Existing RACT permit.* The requirements of this section supersede the requirements of a RACT permit issued to the owner or operator of a cleaning unit operation subject to this section prior to _____ (*Editor's Note:* The blank refers to the effective date of adoption of this proposed rulemaking.), under §§ 129.91–129.95 (relating to stationary sources of NO_x and VOCs) to control, reduce or minimize VOCs from cleaning unit operation cleaning activities at the facility, except to the extent the RACT permit contains more stringent requirements.

(e) *Emissions limitations.* Beginning _____ (*Editor's Note:* The blank refers to the effective date of adoption of this proposed rulemaking.), the owner or operator of a facility at which the total combined actual VOC emissions from all subject cleaning unit operations at the facility are equal to or greater than 2.7 tons (2,455 kilograms) per 12-month rolling period, before consideration of controls, may not cause or permit the emission into the outdoor atmosphere of VOCs from an industrial cleaning solvent used or applied in a cleaning unit operation subject to this section at the facility, unless one of the following limitations is met:

(1) *Compliant solvents.* The industrial cleaning solvent meets one of the following VOC limits:

(i) A VOC content less than or equal to 0.42 lb VOC/gal (50 g VOC/l) as applied.

(ii) A VOC composite vapor pressure less than or equal to 8 mm mercury at 68°F (20°C) as applied.

(2) *VOC emissions capture system and add-on air pollution control device.* The weight of VOCs emitted to the atmosphere from cleaning unit operation cleaning activities is reduced through the use of vapor recovery or incineration or another method that is acceptable under § 129.51(a) (relating to general). The overall emission reduction of a control system, as determined by the test methods and procedures specified in Chapter 139 (relating to sampling and testing), may be no less than 85% or may be no less than the equivalent efficiency as calculated by the following equation, whichever is less stringent:

$$O = (1 - E/V) \times 100$$

Where:

O = The overall required control efficiency.

E = 0.42 lb VOC/gal or 50 g VOC/l.

V = The VOC content of the industrial cleaning solvent in lb VOC/gal or g VOC/l.

(f) *Work practice requirements for industrial cleaning solvents, used shop towels and waste materials.* The owner or operator of a facility subject to subsection (e) shall comply with all of the following work practices for industrial cleaning solvents and shop towels used in the cleaning unit operation cleaning activity:

(1) Store all VOC-containing industrial cleaning solvents, used shop towels and related waste materials in closed containers.

(2) Ensure that mixing and storage containers used for VOC-containing industrial cleaning solvents and related waste materials are kept closed at all times except when depositing or removing these materials.

(3) Minimize spills of VOC-containing industrial cleaning solvents and related waste materials and clean up spills immediately.

(4) Convey VOC-containing industrial cleaning solvents and related waste materials from one location to another in closed containers or pipes.

(5) Minimize VOC emissions from cleaning of storage, mixing and conveying equipment.

(6) Minimize air circulation around cleaning unit operations.

(g) *Compliance demonstration.* The owner or operator of a cleaning unit operation subject to this section shall demonstrate compliance as follows:

(1) The owner or operator of a facility at which the total combined actual VOC emissions from all subject cleaning unit operations at the facility are equal to or greater than 2.7 tons (2,455 kilograms) per 12-month rolling period, before consideration of controls, shall do either of the following:

(i) Ensure that industrial cleaning solvents used or applied in the subject cleaning unit operations at the facility meet the applicable emissions limitation in subsection (e)(1) and maintain records in accordance with subsection (h)(1)(i).

(ii) Use a VOC emissions capture system and an add-on air pollution control device that meets the VOC emission reduction requirement under subsection (e)(2), equip the add-on air pollution control device with the applicable monitoring equipment and maintain records in accordance with subsection (h)(1)(ii). All of the following apply:

(A) The monitoring equipment shall be installed, calibrated, operated and maintained according to manufacturer's specifications at all times when the add-on air pollution control device is operating.

(B) The add-on air pollution control device must be operating when the cleaning activity is occurring.

(2) The owner or operator of a cleaning unit operation subject to this section claiming exemption under:

(i) Subsection (c)(2)(i) shall maintain records in accordance with subsection (h)(2).

(ii) Subsection (c)(2)(ii) shall maintain records in accordance with subsection (h)(3).

(iii) Subsection (c)(3) shall maintain records in accordance with subsection (h)(4).

(3) The owner or operator of a cleaning unit operation subject to this section shall determine the VOC content of the industrial cleaning solvent as applied by conducting sampling and testing of the industrial cleaning solvent in accordance with the procedures and test methods specified in subsections (i) and (j) and Chapter 139.

(4) The owner or operator of a cleaning unit operation subject to paragraph (3) may use other test methods or documentation to demonstrate compliance with this section if approved in advance in writing by the Department and the EPA.

(h) *Recordkeeping and reporting requirements.* The owner or operator of a cleaning unit operation subject to

this section shall comply with all of the following applicable recordkeeping and reporting requirements:

(1) The owner or operator of a facility at which the total combined actual VOC emissions from all subject cleaning unit operations at the facility are equal to or greater than 2.7 tons (2,455 kilograms) per 12-month rolling period, before consideration of controls, shall maintain all of the applicable records:

(i) For an owner or operator that complies with this section by using a complying industrial cleaning solvent under subsection (e)(1), records of all of the following parameters for each cleaning unit operation industrial cleaning solvent:

- (A) The name and identification number.
- (B) The weight percent of total volatiles, water and exempt solvents, as supplied.
- (C) The VOC content or composite vapor pressure, as supplied. The composite vapor pressure as supplied shall be determined in accordance with subsections (i) and (j).
- (D) The VOC content or composite vapor pressure, as applied. The composite vapor pressure as applied shall be determined in accordance with subsections (i) and (j).

(E) The volume used or applied on a monthly basis.

(ii) For an owner or operator that complies with this section through the use of a VOC emissions capture system and an add-on air pollution control device under subsection (e)(2), records sufficient to demonstrate all of the following:

- (A) Sampling and testing conducted in accordance with Chapter 139 as required under subsection (e)(2).
- (B) Calibration, operation and maintenance of the monitoring equipment installed under subsection (g)(1)(ii) in accordance with manufacturer's specifications.

(2) The owner or operator of a cleaning unit operation claiming exemption under subsection (c)(2)(i) shall maintain records of all of the following information for the exempt industrial cleaning solvent:

- (i) A copy of the applicable standard or specification.
 - (ii) The VOC content or composite vapor pressure, as applied. The composite vapor pressure as applied shall be determined in accordance with subsections (i) and (j).
 - (iii) The volume used or applied monthly.
- (3) The owner or operator of a screen printing equipment cleaning unit operation claiming exemption under subsection (c)(2)(ii) shall maintain records of all of the following information for the screen printing equipment industrial cleaning solvent:

- (i) The name and identification number.
- (ii) The VOC content or composite vapor pressure, as applied. The composite vapor pressure as applied shall be determined in accordance with subsections (i) and (j).
- (iii) The volume used or applied monthly.

(4) The owner or operator of a facility claiming exemption under subsection (c)(3) shall maintain monthly records of the industrial cleaning solvents used or applied at the subject cleaning unit operations sufficient to demonstrate that the total combined actual VOC emissions from all subject cleaning unit operations at the facility are less than 2.7 tons (2,455 kilograms) per 12-month rolling period, before consideration of controls.

(5) Records shall be maintained onsite for 2 years, unless a longer period is required under Chapter 127

(relating to construction, modification, reactivation and operation of sources) or a plan approval, operating permit, consent decree or order issued by the Department.

(6) Records shall be submitted to the Department in an acceptable format upon receipt of a written request from the Department.

(i) *Composite vapor pressure.* The composite vapor pressure of organic compounds in cleaning unit operation industrial cleaning solvents shall be determined by one or more of the following procedures:

(1) Quantifying the amount of each compound in the blend using gas chromatographic analysis, using one or more of the following methods:

- (i) An appropriate and current ASTM test method with prior written approval from the Department and the EPA.
- (ii) Another test method demonstrated to provide results that are acceptable for purposes of determining compliance with this section if prior approval is obtained in writing from the Department and the EPA.

(2) Calculating the composite vapor pressure using the following equation:

$$P_{pc} = \frac{\sum_{i=1}^n (W_i) (VP_i) / Mw_i}{\frac{W_w}{Mw_w} + \sum_{e=1}^k W_e / Mw_e + \sum_{i=1}^n W_i / Mw_i}$$

Where:

P_{pc} = VOC composite partial pressure at 20°C, in mm mercury.

W_i = Weight of the "i"th VOC compound, in grams, as determined by ASTM E260.

W_w = Weight of water, in grams, as determined by ASTM D3792.

W_e = Weight of the "e"th exempt compound, in grams, as determined by ASTM E260.

Mw_i = Molecular weight of the "i"th VOC compound, in grams per g-mole, as given in chemical reference literature.

Mw_w = Molecular weight of water, 18 grams per g-mole.

Mw_e = Molecular weight of the "e"th exempt compound, in grams per g-mole, as given in chemical reference literature.

VP_i = Vapor pressure of the "i"th VOC compound at 20°C, in mm mercury, as determined by subsection (j).

(3) Providing documentation from the manufacturer of the industrial cleaning solvent that indicates the composite vapor pressure. The documentation may include an MSDS, CPDS or other data certified by the manufacturer.

(j) *Vapor pressure of single component compound.* The vapor pressure of each single component compound in a cleaning unit operation industrial cleaning solvent shall be determined from one or more of the following:

(1) An appropriate and current ASTM test method with prior written approval from the Department and the EPA.

(2) The most recent edition of one or more of the following sources:

(i) *Vapour Pressures of Pure Substances*, Boublik, Elsevier Scientific Publishing Company.

(ii) *Perry's Chemical Engineers' Handbook*, Green and Perry, McGraw-Hill Book Company.

(iii) *CRC Handbook of Chemistry and Physics*, CRC Press.

(iv) *Lange's Handbook of Chemistry*, McGraw-Hill Book Company.

(3) Documentation provided by the manufacturer of the single component compound that indicates the vapor pressure of the single component compound. The documentation may include an MSDS, CPDS or other data certified by the manufacturer.

(k) *ASTM method references*. References to ASTM methods in this section pertain to test methods developed by ASTM International, 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, Pennsylvania 19428-2959, www.astm.org.

§ 129.73. Aerospace manufacturing and rework.

Except as provided in paragraph (1), this section applies to the manufacture or rework of commercial, civil or military aerospace vehicles or components at any facility which has the potential to emit 25 tons per year of VOCs or more.

* * * * *

(3) Beginning April 10, 1999, a person may not apply to aerospace vehicles or components, aerospace specialty coatings, primers, topcoats and chemical milling maskants including VOC-containing materials added to the original coating supplied by the manufacturer, that contain VOCs in excess of the limits specified in Table II.

(i) Aerospace coatings that meet the definitions of the specific coatings in Table II shall meet those allowable coating VOC limits.

(ii) All other aerospace primers, aerospace topcoats and chemical milling maskants are subject to the general coating VOC limits for aerospace primers, aerospace topcoats and aerospace chemical milling maskants.

TABLE II
Allowable Content of VOCs in Aerospace Coatings
[Allowable VOC Content]

Weight of VOC Per Volume of Coating (Minus Water and Exempt Solvents)

COATING TYPE	LIMIT POUNDS PER GALLON	GRAMS PER LITER
Specialty Coatings		
* * * * *		
(20) Fuel-Tank Coating	6.0	720
[(a)] (21) High-Temperature Coating	7.1	850
[(21)] (22) Insulation Covering	6.2	740
[(22)] (23) Intermediate Release Coating	6.2	750
[(23)] (24) Lacquer	6.9	830
[(24)] (25) Maskants:		
(a) Bonding Maskant	10.2	1,230
(b) Critical Use and Line Sealer Maskant	8.6	1,020
(c) Seal Coat Maskant	10.2	1,230
[(25)] (26) Metallized Epoxy Coating	6.2	740
[(26)] (27) Mold Release	6.5	780
[(27)] (28) Optical Anti-Reflective Coating	6.2	750
[(28)] (29) Part Marking Coating	7.1	850
[(29)] (30) Pretreatment Coating	6.5	780
[(30)] (31) Rain Erosion-Resistant Coating	7.1	850
[(31)] (32) Rocket Motor Nozzle Coating	5.5	660
[(32)] (33) Scale Inhibitor	7.3	880
[(33)] (34) Screen Print Ink	7.0	840
[(34)] (35) Sealants:		
(a) Extrudable/Rollable/Brushable Sealant	2.0	240
(b) Sprayable Sealant	5.0	600
[(35)] (36) Self-Priming Topcoat	3.5	420
[(36)] (37) Silicone Insulation Material	7.1	850

<i>COATING TYPE</i>	<i>LIMIT POUNDS PER GALLON</i>	<i>GRAMS PER LITER</i>
[(37)] (38) Solid Film Lubricant	7.3	880
[(38)] (39) Specialized Function Coating	7.4	890
[(39)] (40) Temporary Protective Coating	2.7	320
[(40)] (41) Thermal Control Coating	6.7	800
[(41)] (42) Wet Fastener Installation Coating	5.6	675
[(42)] (43) Wing Coating	7.1	850
* * * * *		

ADDITIONAL RACT REQUIREMENTS FOR MAJOR SOURCES OF NO_x AND VOCs

§ 129.96. Applicability.

(a) The NO_x requirements of this section and §§ 129.97—129.100 apply Statewide to the owner and operator of a major NO_x emitting facility and the VOC requirements of this section and §§ 129.97—129.100 apply Statewide to the owner and operator of a major VOC emitting facility that were in existence on or before July 20, 2012, for which a requirement or emission limitation, or both, has not been established in §§ 129.51—[129.52c] 129.52e, 129.54—129.69, 129.71—[129.73,] 129.75, 129.77, 129.101—129.107 and 129.301—129.310.

(b) The NO_x requirements of this section and §§ 129.97—129.100 apply Statewide to the owner and operator of a NO_x emitting facility and the VOC requirements of this section and §§ 129.97—129.100 apply Statewide to the owner and operator of a VOC emitting facility when the installation of a new source or a modification or change in operation of an existing source after July 20, 2012, results in the source or facility meeting the definition of a major NO_x emitting facility or a major VOC emitting facility and for which a requirement or an emission limitation, or both, has not been established in §§ 129.51—[129.52c] 129.52e, 129.54—129.69, 129.71—[129.73,] 129.75, 129.77, 129.101—129.107 and 129.301—129.310.

* * * * *

§ 129.97. Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule.

* * * * *

(k) The owner or operator of a major NO_x emitting facility or a major VOC emitting facility subject to § 129.96 that includes an air contamination source subject to one or more of subsections (b)—(h) that cannot meet the applicable presumptive RACT requirement or RACT emission limitation without installation of an air cleaning device may submit a petition, in writing, requesting an alternative compliance schedule in accordance with the following:

(1) The written petition shall be submitted to the Department or appropriate approved local air pollution control agency as soon as possible but not later than:

(i) October 24, 2016, for a source subject to § 129.96(a).

(ii) October 24, 2016, or 6 months after the date that the source meets the definition of a major NO_x emitting facility **or major VOC emitting facility**, whichever is later, for a source subject to § 129.96(b).

* * * * *

§ 129.99. Alternative RACT proposal and petition for alternative compliance schedule.

* * * * *

(i) The owner and operator of a facility proposing to comply with the applicable RACT requirement or RACT emission limitation under subsection (a), (b) or (c) through the installation of an air cleaning device may submit a petition, in writing, requesting an alternative compliance schedule in accordance with the following:

(1) The written petition requesting an alternative compliance schedule shall be submitted to the Department or appropriate approved local air pollution control agency as soon as possible but not later than:

(i) October 24, 2016, for a source subject to § 129.96(a).

(ii) October 24, 2016, or 6 months after the date that the source meets the definition of a major NO_x emitting facility **or major VOC emitting facility**, whichever is later, for a source subject to § 129.96(b).

* * * * *

§ 129.100. Compliance demonstration and record-keeping requirements.

(a) Except as provided in subsection (c), the owner and operator of an air contamination source subject to a NO_x RACT requirement or RACT emission limitation or VOC RACT requirement or RACT emission limitation, or both, listed in § 129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) shall demonstrate compliance with the applicable RACT requirement or RACT emission limitation by performing the following monitoring or testing procedures:

* * * * *

[Pa.B. Doc. No. 17-993. Filed for public inspection June 16, 2017, 9:00 a.m.]