

<h1>Regulatory Analysis Form</h1> <p>(Completed by Promulgating Agency)</p> <p>(All Comments submitted on this regulation will appear on IRRC's website)</p>		<p>INDEPENDENT REGULATORY REVIEW COMMISSION</p> <p>2016 JAN 15 PM 2:00</p>	
<p>(1) Agency Environmental Protection</p>		<p>IRRC Number: 3110</p>	
<p>(2) Agency Number: Identification Number: 7-490</p>		<p>IRRC Number: 3110</p>	
<p>(3) PA Code Cite: 25 Pa. Code Chapter 129</p>			
<p>(4) Short Title: Control of VOC Emissions from Automobile and Light-duty Truck Assembly Coating Operations and Heavier Vehicle Coating Operations</p>			
<p>(5) Agency Contacts (List Telephone Number and Email Address): Primary Contact: Laura Edinger, 783-8727, ledinger@pa.gov Secondary Contact: Jessica Shirley, 783-8727, jessshirley@pa.gov</p>			
<p>(6) Type of Rulemaking (check applicable box):</p> <p><input type="checkbox"/> Proposed Regulation</p> <p><input checked="" type="checkbox"/> Final Regulation</p> <p><input type="checkbox"/> Final Omitted Regulation</p>		<p><input type="checkbox"/> Emergency Certification Regulation</p> <p><input type="checkbox"/> Certification by the Governor</p> <p><input type="checkbox"/> Certification by the Attorney General</p>	
<p>(7) Briefly explain the regulation in clear and nontechnical language. (100 words or less)</p> <p>The final rulemaking amends 25 Pa. Code Chapter 129 (relating to standards for sources) by adding § 129.52e (relating to control of VOC emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations) to adopt reasonably available control technology (RACT) requirements and RACT emission limitations for stationary sources of volatile organic compound (VOC) emissions from automobile and light-duty truck assembly coating operations and, when elected, certain other vehicle-related surface coating operations. The final rulemaking adds terms and definitions to § 129.52e to support the interpretation of the measures and amends § 129.51 (relating to general) to support the addition of § 129.52e.</p> <p>Emissions of VOCs are precursors to the formation of ground-level ozone, a criteria air pollutant. Ground-level ozone is formed from emissions of nitrogen oxides (NO_x) and VOCs in the presence of sunlight. High concentrations of ground-level ozone air pollution are a serious threat to public health and welfare and the environment. Consistent with section 4.2 of the Pennsylvania Air Pollution Control Act (act) (35 P.S. § 4004.2(a)), the ground-level ozone air pollution reduction measures in this final rulemaking are reasonably required to achieve and maintain the health-based and welfare-based ozone National Ambient Air Quality Standards (NAAQS) in this Commonwealth and to satisfy related Clean Air Act (CAA) (42 U.S.C.A. §§ 7401—7671q) requirements.</p> <p>This final 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) upon publication in the <i>Pennsylvania Bulletin</i> as final-form regulation.</p>			

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(8) State the statutory authority for the regulation. Include specific statutory citation.

The final rulemaking is authorized under section 5(a)(1) of the act (35 P.S. § 4005(a)(1)), which grants the Environmental Quality Board (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 act (35 P.S. § 4005(a)(8)) also grants the Board the authority to adopt rules and regulations designed to implement the provisions of the CAA.

(9) Is the regulation mandated by any federal or state law or court order, or federal regulation? Are there any relevant state or federal court decisions? If yes, cite the specific law, case or regulation as well as any deadlines for action.

Federal mandates

Yes. State regulations to control VOC emissions from the automobile and light-duty truck assembly coating operations and heavier vehicle coating operations, as well as the VOC emissions from related cleaning activities, are required under Federal law. 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)), the final rulemaking establishes VOC emission limitations and other requirements consistent with the recommendations of the EPA 2008 Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings (2008 ALDT CTG) as RACT for these sources in this Commonwealth. See *Consumer and Commercial Products, Group IV: Control Techniques Guidelines in Lieu of Regulations for Miscellaneous Metal Products Coatings, Plastic Parts Coatings, Auto and Light-Duty Truck Assembly Coatings, Fiberglass Boat Manufacturing Materials, and Miscellaneous Industrial Adhesives*, 73 FR 58481, 58483 (October 7, 2008). State regulations implementing the recommendations of the 2008 ALDT CTG were due to the EPA by October 7, 2009. See 73 FR 58481, 58484.

The Commonwealth's final-form regulation will be approved by the EPA as a revision to the Commonwealth's SIP if the provisions meet the RACT requirements of the CAA and its implementing regulations. See 73 FR 58481, 58483. The EPA defines RACT as "the 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 *State Implementation Plans; General Preamble for Proposed Rulemaking on Approval of Plan Revisions for Nonattainment Areas—Supplement (on Control Techniques Guidelines)*, 44 FR 53761, 53762 (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 [State Implementation Plan or "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 "reasonably available control technology" or "RACT," for sources of emissions of NO_x and VOC. Section 182(b)(2) of the CAA (42 U.S.C.A. § 7511a(b)(2)) 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. CTG documents provide states with information about a VOC emission source category and recommendations of what the EPA considers to be RACT for the source category. States can use the Federal recommendations provided in the CTG to inform their own determination as to what constitutes RACT for VOC emissions from the covered source 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.

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 (42 U.S.C.A. § 7511b(e)(3)(C)) 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 where the EPA determines that the CTG will be “substantially as effective as [National] regulations” in reducing emissions of VOC in ozone nonattainment areas. Under CAA section 183(e), a National regulation for consumer or commercial products is limited to the measures applicable to manufacturers, processors, distributors, or importers of the solvents, materials, or products supplied to the consumer or industry. CAA section 183(e) does not authorize the EPA to issue National regulations that would directly regulate end-users of these products. By contrast, CTGs are guidance documents that recommend RACT measures that States can adopt and apply to the end-users of products. This dichotomy (i.e., that the EPA cannot directly regulate end-users under CAA section 183(e), but can address end-users through a CTG) created by Congress is relevant to the EPA’s evaluation of the relative merits of promulgating a National regulation for a source category versus issuing a CTG. See 73 FR 58483.

In 1995, the EPA listed automobile and light-duty truck assembly coatings on its section 183(e) list and, in 2008, issued a CTG for this product category. See 60 FR 15264, 15267 (March 23, 1995) and 73 FR 58481; *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA 453/R-08-006, Office of Air Quality Planning and Standards, EPA, September 2008. The 2008 ALDT CTG document is available on the EPA website at: www.epa.gov/airquality/ozonepollution/SIPToolkit/ctgs.html.

Section 184(a) of the CAA (42 U.S.C.A. § 7511c(a)) provides that the entire Commonwealth is included in the Ozone Transport Region (OTR) (www.otc.air.org) established under section 184. Section 184(b) of the CAA (42 U.S.C.A. § 7511c(b)) addresses provisions for the SIP of a state included in the OTR. Section 184(b)(1)(B) of the CAA requires that states in the OTR, including this 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 statewide to control VOC emissions from automobile and light-duty truck assembly coatings, as well as VOC emissions from related cleaning activities, which are covered by the applicable CTG issued under the following notice: *Consumer and Commercial Products, Group IV: Control Techniques Guidelines in Lieu of Regulations for Miscellaneous Metal Products Coatings, Plastic Parts Coatings, Auto and Light-Duty Truck Assembly Coatings, Fiberglass Boat Manufacturing Materials, and Miscellaneous Industrial Adhesives*, 73 FR 58481, 58483. In the 2008 notice of final determination and availability of final Control Techniques Guidelines, the EPA determined that the recommendations of the 2008 ALDT CTG would be substantially as effective as National regulations in reducing VOC emissions from the automobile and light-duty truck assembly coatings product category in ozone nonattainment areas. See 73 FR 58481.

The Department’s Bureau of Air Quality reviewed the recommendations regarding VOC emission reduction measures included in the 2008 ALDT CTG for their applicability to the ground-level ozone reduction measures necessary for this Commonwealth. The Bureau of Air Quality has determined that VOC emission reduction measures consistent with the recommendations provided in the 2008 ALDT CTG are appropriate to be implemented in this Commonwealth as RACT for this source category. The ground-level ozone reduction measures included in this final rulemaking will achieve VOC emission reductions locally and will also reduce the transport of VOC emissions and ground-level ozone to downwind states. Adoption of VOC emission 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.

Deadline for action and possible consequences for missing the deadline

Section 182(b)(2) of the CAA (42 U.S.C.A. § 7511a(b)(2)) requires that a CTG issued by the EPA after November 15, 1990, include the date by which states subject to section 182(b) of the CAA must submit SIP revisions in response to the CTG. The EPA issued the Automobile and Light-Duty Truck Assembly Coatings CTG on October 7, 2008. See 73 FR 58481. The EPA provided a 1-year period for the required SIP submittal, making SIP revisions for implementation of the Automobile and Light-Duty Truck Assembly Coatings CTG recommendations due by October 7, 2009. See 73 FR 58481, 58484.

If the EPA Administrator finds that a state has failed to submit an acceptable implementation plan or has failed to implement the requirements of an approved plan (in other words, makes a "failure to submit" finding), sanctions will be imposed. Sanctions cannot be imposed until 18 months after the Administrator makes the "failure to submit finding," and sanctions cannot be imposed if a deficiency has been corrected within the 18-month period after the finding. The EPA has not yet made such a finding for this rulemaking.

Section 179 of the CAA (42 U.S.C.A. § 7509) authorizes the EPA to use two types of sanctions: 1) imposing what are called "2:1 offsets" on new or modified sources of emissions; and 2) withholding of certain Federal highway funds. Under section 179 of the CAA and its implementing regulations, the Administrator first imposes 2:1 emission offset sanctions for new or modified major stationary sources in the nonattainment area, and then, if the deficiency has not been corrected within 6 months, also applies Federal highway funding sanctions. See 40 CFR 52.31 (relating to selection of sequence of mandatory sanctions for findings made pursuant to section 179 of the Clean Air Act). The Commonwealth receives approximately \$1.6 billion in Federal transportation funding annually, which would be at risk if the Commonwealth does not implement RACT requirements for the control of VOC emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations.

(10) State why the regulation is needed. Explain the compelling public interest that justifies the regulation. Describe who will benefit from the regulation. Quantify the benefits as completely as possible and approximate the number of people who will benefit.

Purpose

The purpose of this final rulemaking is to implement control measures to reduce VOC emissions Statewide from automobile and light-duty truck assembly surface coating processes and, when elected, certain other vehicle-related surface coating processes, as well as VOC emissions from related cleaning activities. VOCs are precursors for ground-level ozone formation. Ground-level ozone, a public health and welfare hazard, is not emitted directly by automobile and light-duty truck assembly surface coating and heavier vehicle surface coating processes to the atmosphere, but forms from a photochemical reaction between VOCs and NO_x in the presence of sunlight.

Summary of impact of ozone, a criteria air pollutant

The EPA regulates ground-level ozone as a criteria air pollutant because of its widespread adverse public health and welfare effects, including adverse environmental effects. 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, agricultural crop loss, visible foliar injury to sensitive plant species, and damage to forests, ecosystems and infrastructure.

The final-form VOC emission control measures, which are consistent with the recommendations in the EPA's 2008 ALDT CTG, will reduce VOC emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations that do not already comply with the control measures, in ozone nonattainment and maintenance areas in this Commonwealth. Implementation of the final-form VOC control measures will benefit the public health and welfare of the approximately 12.7 million residents and the numerous animals, crops, vegetation and natural areas of this Commonwealth by reducing emissions of VOCs and, therefore, the subsequent formation of ground-level ozone air pollution. Promulgation of the final-form regulation will allow the Commonwealth to make progress in achieving or maintaining, or both, the 1997, 2008, and 2015 8-hour ozone NAAQS statewide. Ground-level ozone air pollution can also be transported downwind via regional air currents and meteorological events. Reductions of ground-level ozone in this Commonwealth will therefore also benefit the residents of downwind states and downwind environments. The VOC emission control measures in this final rulemaking are reasonably necessary to attain and maintain the health-based and welfare-based 8-hour ozone NAAQS in this Commonwealth, to satisfy related CAA requirements, and to protect the livelihoods of numerous citizens and residents.

Ozone NAAQS; Implementation of permanent and enforceable control measures for attainment and maintenance

The EPA promulgated the ground-level ozone NAAQS in July 1997 at 0.08 part per million (ppm) averaged over 8 hours. See 62 FR 38855 (July 18, 1997). Because ozone ambient air monitoring 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 ambient air monitoring data for the 2015 ozone season, all monitored areas of the Commonwealth are attaining the 1997 8-hour ozone NAAQS. Maintenance plans have been submitted to the EPA and approved for the 1997 ozone NAAQS. Section 175A(a) of the CAA (42 U.S.C.A. § 7505a(a)) prescribes that the maintenance plans include permanent and enforceable control measures that will provide for the maintenance of the 1997 ozone NAAQS for at least 10 years following the EPA's redesignation of the areas to attainment of the 1997 ozone NAAQS. Section 175A(b) of the CAA (42 U.S.C.A. § 7505a(b)) prescribes that 8 years after the EPA redesignates an area to attainment of the applicable ozone NAAQS, additional maintenance plans approved by the EPA must also provide for the maintenance of the ozone NAAQS for another 10 years following the expiration of the initial 10-year period.

In March 2008, the EPA lowered the ozone NAAQS to 0.075 ppm (75 ppb) averaged over 8 hours to provide even 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. The Department's analysis of 2014 ambient air ozone season monitoring data showed that all ozone samplers in this Commonwealth, except the Harrison sampler in Allegheny County, were monitoring attainment of the

2008 ozone NAAQS. The certified 2015 ozone season monitoring data indicates that all areas of this Commonwealth, including the Harrison sampler, are monitoring attainment of the 2008 ozone NAAQS. As with the 1997 ozone NAAQS, the Department must ensure that the 2008 ozone NAAQS are 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 air monitor violations in New Jersey and Maryland.

On October 1, 2015, the EPA again lowered the ozone NAAQS, this time to 0.070 ppm (70 ppb) averaged over 8 hours. See 80 FR 65292 (October 26, 2015). Based on ambient air monitoring data for the 2013-2015 ozone seasons, eight monitors in Pennsylvania have design values that violate the 2015 ozone NAAQS. The samplers are located in Allegheny, Armstrong, Bucks, Delaware, Indiana, Lebanon, Montgomery, and Philadelphia Counties. The Commonwealth must submit designation recommendations for the 2015 ozone NAAQS to the EPA by October 2016. The EPA's final designations for attainment and nonattainment areas for the 2015 ozone NAAQS are expected to take effect in December 2017.

Monetized public 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 2020.¹ Prorating that benefit to the 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 2025.² Prorating that benefit to the Commonwealth, based on population, results in a public health benefit of \$63 million to \$189 million. The Department is not stating that these estimated monetized health benefits would all be the result of implementing the final rulemaking RACT measures, but the EPA estimates are indicative of the benefits to Commonwealth residents of attaining the 2008 and 2015 8-hour ozone NAAQS.

Adverse health and welfare effects to humans, animals and the environment

Exposure to high levels of ground-level ozone air pollution correlates to increased respiratory disease and higher mortality rates. Ozone can inflame and damage the lining of the lungs. Within a few days, the damaged cells are shed and replaced. Over a long time period, lung tissue may become permanently scarred, resulting in permanent loss of lung function and a lower quality of life. When ambient ozone levels are high, more people with asthma have attacks that require a doctor's attention or use of medication. Ozone also makes people more sensitive to allergens including pet dander, pollen, and dust mites, all of which can trigger asthma attacks. The EPA has concluded that there is an association between high levels of ambient ozone and increased hospital admissions for respiratory ailments including asthma. 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 ozone while engaged in activities that involve physical exertion. High

¹ *Regulatory Impact Analysis, Final National Ambient Air Quality Standard for Ozone*, July 2011, http://www.eenews.net/assets/2011/10/04/document_gw_02.pdf.

² *Regulatory Impact Analysis of the Final Revisions to the National Ambient Air Quality Standards for Ground-Level Ozone*, September 2015, <https://www3.epa.gov/ttn/naaqs/standards/ozone/data/20151001ria.pdf>.

levels of ground-level ozone also 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 ground-level ozone affects vegetation and ecosystems, leading to reductions in agricultural crop and commercial forest yields by destroying chlorophyll; reducing the size and quality of seeds; reducing growth and survivability of tree seedlings; and increasing 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. Through deposition, ground-level ozone also contributes to pollution in the Chesapeake Bay. These effects can have adverse impacts including loss of species diversity and changes to habitat quality and water and nutrient cycles. High levels of ground-level ozone can also cause damage to buildings and synthetic fibers, including nylon, and reduced visibility on roadways and in natural areas.

Adverse effects on the Commonwealth's economy

Ground-level ozone also adversely impacts Pennsylvania's farm crops, forests, parks, and timber. The economic value of some welfare losses due to high concentrations of ground-level ozone can be calculated, such as crop yield loss from both reduced growth and smaller, lower-quality seeds and tubers with less oil or protein. If ozone episodes last a few days, visible injury to some leaf crops, including lettuce, spinach, and tobacco, as well as visible injury to the leaves of ornamental plants, including grass, flowers and shrubs, can appear. This injury can be seen as small pale yellow or brown blotches, below which the cells have died. Other types of welfare loss may not be quantifiable, such as the reduced aesthetic value of trees growing in heavily visited parks.

Information about the economic benefit of the Pennsylvania agricultural industry to the Commonwealth is provided by the Pennsylvania Department of Agriculture. Pennsylvania's 59,000 farm families are the stewards of more than 7.7 million acres of farmland. With \$7.5 billion in cash receipts annually from production agriculture, Pennsylvania farmers and agribusinesses are the leading economic driver in our state. In addition to production agriculture, the industry also raises revenue and supplies jobs through support services such as food processing, marketing, transportation, and farm equipment. In total, production agriculture and agribusiness contributes nearly \$75 billion to Pennsylvania's economy. (Source: Pennsylvania Department of Agriculture, 2016, About PDA.) These families, farms, and related businesses benefit directly from the reduction of ground-level ozone air pollution concentrations to attain and maintain the ozone NAAQS.

The Pennsylvania Department of Conservation and Natural Resources (DCNR) is the steward of the state-owned forests and parks. DCNR awards millions of dollars in construction contracts each year to build and maintain the facilities in its parks and forests. Hundreds of concessions throughout the park system help complete the park experience for both state and out-of-state visitors. Pennsylvania's 2.1 million-acre state forest system, found in 48 of Pennsylvania's 67 counties, comprises 12% of the forested area in the Commonwealth. The state forest represents one of the largest expanses of public forestland in the eastern United States, making it a truly priceless public asset. The state forest provides an abundance of high quality forest products, which help to support a forest products industry with sales

in excess of \$16 billion annually, a total economic impact of \$27 billion annually, and that employs in excess of 80,000 people.³

Information about Pennsylvania's hardwoods industry is provided by the Pennsylvania Department of Agriculture in its 2009-2010 biennial Hardwoods Development Council report, cited below. The following information and references are found in that report. Pennsylvania leads the nation in growing volume of hardwood species, with 17 million acres in forest land. As the leading producer of hardwood lumber in the United States, Pennsylvania also leads in the export of hardwood lumber, exporting nearly \$800 million annually in lumber, logs, furniture, and paper products to more than 70 countries around the world. Recent U.S. Forest Service data shows that the state's forest growth-to-harvest rate is better than 2 to 1. This vast renewable resource puts the hardwoods industry at the forefront of manufacturing in the Commonwealth. Through 2006, the total annual direct economic impact generated by Pennsylvania's wood industry was \$18.4 billion. The industry employed 128,000 people, with \$4.7 billion in wages and salaries earned. Production was 1.1 billion board feet of lumber annually. (Strauss, Lord, Powell; PSU, June 2007).⁴

(11) Are there any provisions that are more stringent than federal standards? If yes, identify the specific provisions and the compelling Pennsylvania interest that demands stronger regulations.

The VOC emission limitations and requirements included in the final rulemaking are not more stringent than the recommendations of the EPA 2008 ALDT CTG upon which the final rulemaking is based. The recommended VOC emission limits for the electrodeposition primer, primer-surfacer, and topcoat operations in the EPA's 2008 ALDT CTG are more stringent than the 1980 Federal New Source Performance Standard (NSPS) limits for VOC emissions from automobile and light-duty truck surface coating operations.

When developing the VOC emission limitations and other recommendations for RACT included in the 2008 ALDT CTG, the EPA took into account the 1980 Federal NSPS regulatory limits and requirements for VOC emissions from automobile and light-duty truck assembly coatings for several of the coating categories, as well as earlier RACT recommendations for controlling VOC emissions from these sources. The EPA also considered the 2004 Federal regulatory limits and requirements for hazardous air pollutant (HAP) emissions from surface coating of automobiles and light-duty trucks and information provided in 2008 by the Alliance of Automobile Manufacturers.

In 1977, the EPA issued a CTG document entitled "Control of Volatile Organic Emissions from Existing Stationary Sources Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks (EPA-450/2-77-008) (1977 CTG). The 1977 CTG provided RACT recommendations for controlling VOC emissions from automobile and light-duty truck assembly surface coating operations. The recommendations were for VOC emission limits calculated on a daily basis for each electrodeposition primer operation, primer-surfacer operation, topcoat operation, and final repair operation. The limits of § 129.52 (relating to surface coating processes), Table I, category 6, for the automobile and light duty truck coating subcategories of prime coat, top coat, and repair were

³ Pennsylvania Department of Conservation and Natural Resources, Bureau of Forestry, State Forest Resource Management Plan, 2007 Update. http://www.apps.dcnr.state.pa.us/forestry/sfrmp/sfrmp_update_2007.pdf

⁴ Pennsylvania Hardwoods Development Council Biennial Report, 2009-2010.) A copy of this document is available from the Bureau of Air Quality upon request.

Source: Pennsylvania Hardwoods Development Council Photo, *Pennsylvania Hardwood Leading the Nation*. A copy of this document is available from the Bureau of Air Quality upon request.

promulgated at 9 Pa.B. 1447 (April 28, 1979), to implement RACT measures consistent with the recommendations in the 1977 CTG for the automobile and light duty truck coating categories.⁵

In 1980, the EPA promulgated New Source Performance Standards (1980 NSPS) for surface coating of automobiles and light-duty trucks at 40 CFR Part 60 Subpart MM (relating to standards of performance for automobile and light duty truck surface coating operations), set forth at 40 CFR 60.390—60.398. The 1980 NSPS established VOC emission limits calculated on a monthly basis for each electrodeposition primecoat operation, guidecoat (primer-surfacer) operation, and topcoat operation located in an automobile or light-duty truck assembly plant constructed, reconstructed, or modified after October 5, 1979. See 45 FR 85415 (December 24, 1980) and 59 FR 51383 (October 11, 1994).⁶ The NSPS limits and the 1977 CTG recommendations for primer-surfacer and topcoat cannot be directly compared because of differences in the compliance period (monthly for the NSPS limits and daily for the 1977 CTG recommendations) and how transfer efficiency is considered (table values for the NSPS limits and actual transfer efficiency testing for the 1977 CTG recommendations).⁷

In addition to establishing the 1980 NSPS VOC content limits, in 2004 the EPA promulgated 40 CFR Part 63, Subpart IIII (relating to National emission standards for hazardous air pollutants: surface coating of automobiles and light-duty trucks) (2004 NESHAP), set forth at 40 CFR 63.3080—63.3176. See 69 FR 22602, 22623 (April 26, 2004). The 2004 NESHAP established organic HAP emissions limitations calculated on a monthly basis for existing sources. More stringent limits apply to new sources that commenced construction after December 24, 2002. The 2004 NESHAP also specified work practices to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials, and from handling waste materials generated by the coating operation. Many HAPs are VOCs, but not all VOCs are HAPs. The requirements of the 2004 NESHAP apply to "major sources" of HAP from surface coatings applied to bodies or body parts for new automobiles or new light-duty trucks. For the purpose of regulating HAP emissions, a "major source" is considered to be a stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year (tpy) or more of any single listed HAP or 25 tpy or more of any combination of HAPs. See section 112(a)(1) of the CAA (42 U.S.C.A. § 7412(a)(1)); see also 69 FR 22602, 22603.

Additionally, in 2008, the Alliance of Automobile Manufacturers, an industry trade association representing the majority of these facilities, provided the EPA with information from its member companies. Non-member companies also submitted information to the EPA. The EPA reviewed and evaluated this information in conjunction with developing the 2008 ALDT CTG. In total, the EPA received information for 52 facilities. The information included VOC emission rates for electrodeposition primer operations, primer-surfacer operations, and topcoat operations on a daily and monthly average for the calendar years 2006 and 2007. The VOC emission limits recommended for these operations in the 2008 ALDT CTG are based on the 2006 and 2007 data from then-operating automobile and light-duty truck assembly coating operations.⁸

The recommended VOC emission limits in EPA's 2008 ALDT CTG for electrodeposition primer operations, primer-surfacer operations, and topcoat operations are more stringent than the 1980 NSPS limits. The recommended VOC emission limit for final repair operation in the 2008 ALDT CTG is the

⁵ *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006, page 15.

⁶ *Ibid.*, page 16.

⁷ *Ibid.*

⁸ *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006, page 18.

same as the 1977 CTG recommended limit for this category.⁹ The work practices recommendations in the 2008 ALDT CTG mirror those found in the 2004 NESHAP.¹⁰

This final rulemaking is designed to adopt VOC emission limitations and requirements consistent with the standards and recommendations in the 2008 ALDT CTG to meet the requirements of sections 172(c)(1), 182(b)(2), and 184(b)(1)(B) of the CAA. The final rulemaking applies these VOC emission limitations and requirements across this Commonwealth, as required under section 184(b)(1)(B) of the CAA. The VOC content and emission rate limitations and other requirements of the final rulemaking are not more stringent than the recommendations included in the EPA 2008 ALDT CTG upon which the final rulemaking is based. Consistent with section 4.2 of the act, the measures in this final-form rulemaking are reasonably required to achieve and maintain the health-based and welfare-based 8-hour ozone NAAQS in this Commonwealth and to satisfy related CAA requirements.

(12) How does this regulation compare with those of the other states? How will this affect Pennsylvania's ability to compete with other states?

This final rulemaking is similar to the regulations already adopted by New York, Delaware, and Ohio. New York and Delaware are members of the OTR, along with the Commonwealth. The final rulemaking will have no effect on Pennsylvania's ability to compete with other states that have automobile and light-duty truck assembly coating operations and certain other vehicle-related coating operations.

(13) Will the regulation affect any other regulations of the promulgating agency or other state agencies? If yes, explain and provide specific citations.

Yes, other Department regulations are affected by this final rulemaking.

Title 25 *Pa. Code*, Chapter 129, is amended as follows:

Section 129.51(a) (relating to general) is amended to establish that compliance with § 129.52e may be achieved by alternative methods.

Section 129.51(a)(3) is amended to establish that compliance by a method other than the use of a low-VOC content coating, adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent or ink which meets the applicable emission limitation in § 129.52e shall be determined on the basis of equal volumes of solids.

Section 129.51(a)(6) is amended to establish that 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 § 129.52e.

The requirements of § 129.52e supersede the requirements of a RACT permit issued under §§ 129.91—129.95 (relating to stationary sources of NO_x and VOCs) to the owner or operator of a source subject to § 129.52e prior to January 1, 2017, except to the extent the RACT permit contains more stringent requirements.

⁹ Ibid., page 19.

¹⁰ Ibid., page 18.

The Department is separately finalizing a rulemaking in § 129.52d to implement VOC emission limitations and requirements consistent with the recommendations of the *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings*, EPA-453/R-08-003 (2008 MMPP CTG), Office of Air Quality Planning and Standards, EPA, September 2008. The owners and operators of certain types of surface coating processes that will be subject to that final rulemaking could, upon election, become subject to this final rulemaking instead. Specifically, the RACT requirements and RACT emission limitations of this final rulemaking will apply, if so elected, to the owner or operator of an operation that performs surface coating of a body or a body part for a new heavier vehicle or surface coating on a separate coating line at an automobile and light-duty truck assembly coating facility on which coatings are applied to other parts intended for use in new automobiles or new light-duty trucks or to aftermarket repair or replacement parts for automobiles or light-duty trucks. These types of operations are covered by the 2008 MMPP CTG and are subject to the requirements included in the final rulemaking for § 129.52d.

However, the EPA recommended in the 2008 ALDT CTG that a state consider giving an owner or operator of a separate coating line at an automobile and light-duty truck assembly coating facility the option of complying with the state's regulation adopted under the 2008 ALDT CTG instead of the 2008 MMPP CTG (final rulemaking for § 129.52d); and that a state similarly give an owner or operator of a facility that coats bodies or body parts for new heavier vehicles the option to comply with either of the state's regulation adopted under the 2008 MMPP CTG or the 2008 ALDT CTG.¹¹ Accordingly, in the two final rulemakings, the owner or operator of a separate coating line at an automobile and light-duty truck assembly coating facility, and the owner or operator of a facility that coats a body or body part for a new heavier vehicle, has the option to elect to be regulated under this final rulemaking instead of final § 129.52d. This option is provided to allow these owners and operators flexibility in complying with their permit conditions and to optimize their operations. The final rulemaking for § 129.52d will be adopted as a final rulemaking on the same date of final adoption as this final rulemaking.

No other regulations promulgated by this agency or other state agencies are affected.

(14) Describe the communications with and solicitation of input from the public, any advisory council/group, small businesses and groups representing small businesses in the development and drafting of the regulation. List the specific persons and/or groups who were involved. ("Small business" is defined in Section 3 of the Regulatory Review Act, Act 76 of 2012.)

The Board approved publication of the proposed rulemaking at its meeting of April 21, 2015. The proposed rulemaking was published at 45 Pa.B. 4351 (August 8, 2015). Three public hearings were held on September 8, 9, and 10, 2015, in Norristown, Harrisburg, and Pittsburgh, respectively. The public comment period closed on October 13, 2015, for a 67-day public comment period. No public comments were received. The Independent Regulatory Review Commission (IRRC) provided comments on the proposed rulemaking.

IRRC expressed concern with the proposed compliance date of January 1, 2016. This concern was resolved by revising the final-form regulation to require compliance by January 1, 2017. The January 1, 2017, date is the mandated deadline for implementation of RACT measures for the 2008 ozone NAAQS under the March 6, 2015, EPA final rule for *Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements* (80 FR 12279). The EPA stated that the

¹¹ *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006, page 4, and *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts*, EPA-453/R-08-003, page 4.

RACT measures for the 2008 ozone NAAQS must be implemented “as expeditiously as practicable, but no later than January 1 of the 5th year after the effective date of a nonattainment designation.” The nonattainment designations across the country were effective for the 2008 ozone NAAQS on July 20, 2012. Consequently, RACT measures for the 2008 8-hour ozone standard must be implemented by January 1, 2017.

IRRC noted that the owner or operator of a separate coating line at an automobile and light-duty truck assembly coating facility, and the owner or operator of a facility that coats a body or body part for a new heavier vehicle, would have the option to elect to be regulated under this proposed rulemaking instead of the concurrently proposed rulemaking for the control of VOC emissions from miscellaneous metal parts surface coating processes, miscellaneous plastic parts surface coating processes and pleasure craft surface coatings (see EQB #7-491 or IRRC #3109). IRRC asked the Board to ensure that the two rulemakings are adopted on the same date. The Board agrees and notes that it intends to consider the two final rulemakings concurrently.

All comments received on the proposed rulemaking and related issues have been addressed in the final rulemaking. There are no unresolved issues.

The draft final-form Annex A was discussed with the Air Quality Technical Advisory Committee (AQTAC) on February 11, 2016. The AQTAC voted 16-0-1 (yes; no; abstain) to concur with the Department’s recommendation to forward the final rulemaking to the Board for consideration. The draft final-form Annex A was discussed with the Citizens Advisory Council (CAC) Policy and Regulatory Oversight (PRO) Committee on March 2, 2016. On the recommendation of the PRO Committee of the CAC, on March 15, 2016, the CAC concurred with the Department’s recommendation to forward the final rulemaking to the Board for consideration. The draft final-form Annex A was discussed with the Small Business Compliance Advisory Committee (SBCAC) on April 27, 2016. The SBCAC voted unanimously to concur with the Department’s recommendation to forward the final rulemaking to the Board for consideration, with a recommendation to consider flexibility for small businesses. The AQTAC, SBCAC and CAC meetings are advertised and open to the public.

(15) Identify the types and number of persons, businesses, small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012) and organizations which will be affected by the regulation. How are they affected?

This final rulemaking applies to the types and numbers of persons, businesses, small businesses and organizations described below in this response. By way of summary, the Department anticipates that approximately 61 businesses, all of which are likely small businesses, will be affected by the final rulemaking. The owners and operators of approximately 47 of the affected businesses will be subject to the compliance monitoring and VOC content limit requirements. The owners and operators of these affected businesses will also be subject to work practice requirements, daily recordkeeping requirements and, if requested by the Department, reporting requirements. The owners and operators of the remaining 14 facilities will only be subject to compliance monitoring and daily recordkeeping requirements and, if requested by the Department, reporting requirements.

This final rulemaking applies to the owner and operator of an automobile and light-duty truck assembly coating operation that applies an automobile assembly coating or a light-duty truck assembly coating, or both, to one or more of the following:

- (1) a new automobile body or a new light-duty truck body;
- (2) a body part for a new automobile or for a new light-duty truck; or
- (3) another part that is coated along with the new automobile body or body part or new light-duty truck body or body part.

This final rulemaking also applies to the owner and operator of a facility that performs a coating operation subject to this final rulemaking on a contractual basis.

This final rulemaking also applies to the owners and operators of two other categories of operations who elect, for operational flexibility and streamlined permitting, to demonstrate compliance with this rulemaking instead of final-form § 129.52d (relating to control of VOC emissions from miscellaneous metal parts surface coating processes, miscellaneous plastic parts surface coating processes and pleasure craft surface coatings):

- (1) The owner and operator of an automobile and light-duty truck assembly coating operation that operates a separate coating line at the facility on which a coating is applied to another part intended for use in a new automobile or new light-duty truck or to an aftermarket repair or replacement part for an automobile or light-duty truck.
- (2) The owner and operator of a facility that coats a body or body part for a new heavier vehicle. A heavier vehicle is defined as a self-propelled vehicle designed for transporting persons or property on a street or highway that has a gross vehicle weight rating over 8,500 pounds.¹²

The final rulemaking for § 129.52d will be adopted on the same date as this final rulemaking.

This election effectuates the recommendations of the EPA in the 2008 ALDT CTG.¹³

This final rulemaking does not apply to the use or application of an automobile and light-duty truck assembly coating by an owner or operator at a plastic or composites molding facility. The VOC content limits in the final rulemaking also do not apply to an assembly coating supplied in a container with a net volume of 16 ounces or less or a net weight of 1 pound or less.

The EPA VOC emission control recommendations included in the 2008 ALDT CTG, and reflected in the final rulemaking, include VOC content limits for the following listed coatings: primary coatings (electrodeposition primer, primer-surfacer, topcoat, and final repair) and additional coatings (glass bonding primer, adhesives, cavity wax, sealer, deadener, gasket/gasket sealing material, underbody coating, trunk interior coating, bedliner, weatherstrip adhesive, and lubricating waxes/compounds).

An owner or operator of an affected surface coating process that applies a regulated surface coating and emits 15 pounds (6.8 kilograms) or more of total actual VOC emissions per day, including VOC emissions from related cleaning activities, before consideration of controls, shall meet the VOC content limit applicable to the coating, beginning January 1, 2017. These owners and operators are also required to implement work practice standards for coatings and for cleaning materials, including developing and

¹² *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006, page 4, footnote.

¹³ *Ibid.*, page 4, and *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts*, EPA-453/R-08-003, page 4.

implementing a written work practice plan to minimize VOC emissions from cleaning and purging of equipment associated with all coating operations for which emission limits are required. The written work practice plan must be maintained onsite and made available to the Department upon request. These owners and operators are required to maintain records sufficient to demonstrate compliance with the final-form requirements, including daily records of specified parameters for each coating, thinner, component or cleaning material as supplied, and a daily record of the VOC content of each coating and cleaning material as applied. These records must 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 or order issued by the Department, and submitted to the Department in an acceptable format upon receipt of a written request from the Department.

An owner and operator of an affected surface coating process with actual VOC emissions below the 15 pounds (6.8 kilograms) per day threshold, including VOC emissions from related cleaning activities, before consideration of controls, is only subject to the compliance monitoring and daily recordkeeping requirements and, if requested by the Department, reporting requirements of the final rulemaking.

The Department's assessment of how many owners and operators of covered facilities are potentially subject to the final rulemaking resulted from reviewing information provided in the 2008 ALDT CTG for this category as well as the Department's air quality permits database and the United States Small Business Administration (SBA) Small Business Size Regulations under 13 CFR Chapter 1, Part 121 (relating to small business size regulations), and information obtained from the Pennsylvania Small Business Development Center's (SBDC) Environmental Management Assistance Program (EMAP). The North American Industry Classification System (NAICS) codes provided by the EPA in the final rule issuing the 2008 ALDT CTG were used to identify potentially subject facilities. The NAICS is an industry classification system developed by Canada, Mexico, and the United States that groups establishments into industry groups based on the economic activities, producing and nonproducing, in which the establishment is primarily engaged. NAICS is a two- through six-digit hierarchical classification code system, offering five levels of detail. Each digit in the code is part of a series of progressively narrower categories, and the more digits in the code signify greater classification detail. The first two digits designate the economic sector, the third digit designates the subsector, the fourth digit designates the industry group, the fifth digit designates the NAICS industry, and the sixth digit designates the National industry. A complete and valid NAICS code contains six digits. See <http://www.naics.com/frequently-asked-questions/>, question number 18. More information about the United States portion of the NAICS is available at <http://www.census.gov/eos/www/naics/>.

The EPA provided three six-digit NAICS codes for this category in the Federal Register final rule notice issuing the 2008 ALDT CTG. See *Consumer and Commercial Products, Group IV: Control Techniques Guidelines in Lieu of Regulations for Miscellaneous Metal Products Coatings, Plastic Parts Coatings, Auto and Light-Duty Truck Assembly Coatings, Fiberglass Boat Manufacturing Materials, and Miscellaneous Industrial Adhesives*, 73 FR 58481, 58482. The three NAICS codes provided were 336111, 336112, and 336211 for "automobile manufacturing," "light truck and utility vehicle manufacturing," and "motor vehicle body manufacturing," respectively.

The Department gathered information from the "Environmental Facility Application Compliance Tracking System" (eFACTS) database and the Air Information Management System (AIMS) database about potentially affected facilities. These are Department databases that share data and interface with each other. Facility specific information, including the NAICS identifying code, is inputted into eFACTS; the database contains records of permitted and some previously inspected facilities for which permits are not required. Site-specific sources and air pollutant emissions, as well as site NAICS codes,

are inputted into AIMS to maintain the air pollutant emission inventory. However, eFACTS and AIMS do not provide an exhaustive list of all facilities in this Commonwealth, but only those with which the Department has had contact and a reason to input their data; these are usually the largest emitters of air pollutants.

A search of the eFACTS database and the AIMS database, using as the search codes the NAICS codes provided in the EPA's final rule notice issuing the CTG, generated a list of 17 facilities in this Commonwealth reporting VOC emissions or having a permit issued by the Department, or both. Most of these facilities manufacture or surface coat, or both, heavier vehicles or parts for heavier vehicles, such as fire trucks, ambulances, and tow trucks. The owners and operators at none of the identified facilities manufacture or surface coat automobiles or automobile parts, which is the primary focus of the 2008 ALDT CTG. A search of the Internet revealed that the owners and operators of 4 of the 17 facilities will not be affected by the final rulemaking due to the type of manufacturing or surface coating done at the facility and their current operating status. The owners and operators of the 13 remaining facilities will only be subject to this final rulemaking if they elect to comply with this final rulemaking instead of the final rulemaking for miscellaneous metal and plastic parts (§ 129.52d). For purposes of discussing the potential impacts of this final rulemaking, however, the Department assumed that the owners and operators of these 13 facilities will elect to be subject to this final rulemaking.

The owners and operators of these 13 facilities reported actual VOC emissions totaling approximately 320 tons for emissions reported in 2013. The owners and operators of 10 of the 13 facilities, or 77% (10/13 x 100), reported actual VOC emissions equal to or greater than 2.7 tons per year, totaling approximately 319 tons. Accordingly, the owners and operators of these 10 facilities are assumed to emit 15 pounds (6.8 kilograms) or more of total actual VOC emissions per day, including VOC emissions from related cleaning activities, before consideration of controls, and will be required to implement VOC emission reduction measures, implement work practice standards for coatings, develop and implement a written work practice plan for cleaning materials, and meet daily recordkeeping requirements. The records must be submitted to the Department in an acceptable format upon receipt of a written request from the Department. The owners and operators of the remaining 3 facilities, or 23% (3/13 x 100), reported VOC emissions below 2.7 tons; their combined reported VOC emissions totaled approximately 1 ton in 2013. Accordingly, the owners and operators of these 3 facilities are assumed to emit less than 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls. As long as their VOC emissions remain below 2.7 tons per year, the owners and operators of these 3 facilities will be subject only to the compliance monitoring and daily recordkeeping requirements and, if requested by the Department, reporting requirements of this final rulemaking. If the VOC emissions at any of these facilities equal or exceed 2.7 tons per year at any time, the owner and operator of the facility become subject to all of the applicable requirements and remain subject to all of the applicable requirements even if the VOC emissions subsequently fall below 2.7 tons per year.

A review of the U.S. SBA Small Business Size Regulations under 13 CFR Chapter 1, Part 121 provided the standard used by the Department for determining what constitutes a small business for these NAICS categories. The Small Business Size Regulations specify that a company with the NAICS codes 336111, 336112, or 336211 for "automobile manufacturing," "light truck and utility vehicle manufacturing" or "motor vehicle body manufacturing," respectively, is considered to be a "small business" if it has 1,000 or fewer employees.

The Pennsylvania SBDC EMAP reviewed the list of 13 potentially subject facilities reporting VOC emissions in 2013 identified by the Department from its databases and determined that all 13 of the

facilities were considered a small business under the SBA Small Business Size Regulations. The 320 tons of actual VOC emissions, or 100%, emitted in 2013 by these sources, therefore, were from small business-sized facilities.

As these data demonstrate, the owner and operator of a facility may be classified as a small business under the Federal Small Business Size Regulations under 13 CFR Chapter 1, Part 121, while still emitting sufficient emissions of VOC to be subject to regulations designed to implement RACT measures consistent with the recommendations of the 2008 ALDT CTG for the control of those VOC emissions. A RACT regulation is a Federal CAA requirement, applicable to the owners and operators of all affected sources that meet the applicable VOC emission thresholds, regardless of business size.

In addition to the facilities identified by the Department, the Pennsylvania SBDC EMAP provided the Department with a list of 95 small businesses generated in May of 2013 from the Hoover's database searching on the specified NAICS codes. The owners or operators of these 95 businesses identified themselves as being connected with motor vehicle and car bodies or truck and bus bodies. The owners and operators of 7 of the 13 potentially subject facilities identified by the Department from its databases also appeared on the list of 95 small businesses generated by SBDC EMAP. The owners and operators of the remaining 88 facilities on the SBDC EMAP list do not appear in the Department's databases and do not have permits or report VOC emissions.

An Internet search of the 88 remaining businesses on the SBDC EMAP list indicated that the owners and operators of 40 of these facilities are likely not subject to the final rulemaking because they are not coating new automobile bodies, new light-duty truck bodies, or new automobile or light-duty truck body parts. This group of 40 includes some automobile racing-related businesses. The final-form definition of "automobile" begins with the words, "A motor vehicle...." The definition of "motor vehicle" codified in 25 Pa. Code § 121.1 specifies that the vehicle is operated "on a street or highway." The Department therefore included the automobile racing-related businesses in the group of 40 facility owners and operators that are likely not affected by the final rulemaking because racing cars are not operated on a street or highway.

The Department assumed that the owners and operators of the remaining 48 (88 – 40) small business-sized facilities on the SBDC EMAP list are potentially subject to the final rulemaking. Combining the two lists, the Department estimates that the owners and operators of as many as 61 (48 + 13) small business-sized facilities may potentially be subject to the final rulemaking.

Using the percentages developed from analysis of the VOC emissions reported by the group of 13 owners and operators of potentially subject permitted surface coating facilities, the Department assumed that the owners and operators of 37 (77% x 48) of the 48 potentially subject non-permitted small business-sized facilities on the list provided by the SBDC EMAP have actual VOC emissions at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls. The owners and operators of these 37 facilities will be required to implement VOC emission reduction measures, implement work practice standards for coatings, develop and implement a written work practice plan for cleaning materials, and meet compliance monitoring and daily recordkeeping requirements. The records must be submitted to the Department in an acceptable format upon receipt of a written request from the Department. The owners and operators of the remaining 11 (23% x 48) potentially subject non-permitted small business-sized facilities are assumed to emit less than 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls. The owners and operators of these 11 facilities are subject only to the compliance monitoring

and daily recordkeeping requirements and, if requested by the Department, reporting requirements of the final rulemaking.

The estimated projected total number of potentially subject facility owners and operators that have actual VOC emissions at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls, is 47 (10 DEP + 37 SBDC EMAP). The estimated projected total number of potentially subject facility owners and operators that have actual VOC emissions below the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls, is 14 (3 DEP + 11 SBDC EMAP).

The difference in estimated projected number of potentially subject facility owners and operators with VOC emissions equal to or greater than 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls, between the Department's list of 10 potentially subject permitted facility owners and operators and the SBDC EMAP's list of 37 potentially subject non-permitted small business-sized facility owners and operators is likely due to the Department's database being for the owners and operators of previously and currently permitted facilities based on regulatory criteria for acquiring a permit, while the SBDC EMAP list is based on a self-reported business classification about their small-business-sized facility without considering the level of VOC emissions. Most of the owners and operators of permitted facilities in the Department's database have actual emissions, or the potential to have emissions, at or above 8 tons per year of VOCs, or installed a new source emitting over 2.7 tons VOC emissions per year, thus requiring a permit.

The recommended RACT VOC emission reduction measures included in the 2008 ALDT CTG are largely based on 2006 and 2007 data supplied by the Alliance of Automobile Manufacturers member companies and non-member companies and the 2004 NESHAP HAP emission reduction measures. While the owner or operator of an automobile and light-duty truck assembly coating or heavier vehicle surface coating facility area source of HAP may not meet the threshold for implementing the HAP emission reduction measures of the 2004 NESHAP (10 tpy of any single listed HAP or 25 tpy of any combination of HAPs), the owner or operator may meet the applicability threshold limit for implementing the final rulemaking measures to control VOC emissions. If the final rulemaking applies to the owners and operators of facilities that have not yet been identified, they will likely be small businesses, as shown above in the discussion of the 13 potentially subject facilities identified by the Department from its databases. The small business size standard for these NAICS categories is based on number of employees, which is 1,000 or fewer employees. While a business employing as many as 1,000 employees could be considered a small business under the Federal Small Business Size regulations, a facility or surface coating operation employing 1,000 employees could be creating a lot of product and generating large amounts of VOC emissions. A RACT regulation is a Federal CAA requirement, applicable to the owners and operators of all affected sources that meet the applicable VOC emission thresholds, regardless of business size.

The costs estimated by the EPA to implement the recommended RACT measures are largely based on the 1980 NSPS VOC emission limitations and 2004 NESHAP HAP emission reduction measures and costs. The owner and operator of an automobile and light-duty truck assembly coating facility that is already implementing the requirements of the 1980 NSPS or 2004 NESHAP and is subject to the final rulemaking measures will likely not have additional costs to comply with the final rulemaking measures. The EPA therefore projected an estimated cost of \$0 to the owners and operators of automobile and light-

duty truck assembly coating facilities potentially subject to regulations implementing requirements consistent with the recommended RACT measures of the 2008 ALDT CTG.

However, the owners and operators of none of the permitted facilities identified by the Department as potentially subject to the final rulemaking have permits implementing the 1980 NSPS or 2004 NESHAP requirements. The Department also determined that the permitted facility owners and operators, as well as the facility owners and operators identified by the SBDC EMAP, are likely performing surface coating of bodies and body parts for heavier vehicles and not coating and assembling the automobiles and light-duty trucks that are the primary focus of the 2008 ALDT CTG.

Consistent with the 2008 ALDT CTG and the 2008 MMPP CTG, the final rulemaking provides the owner or operator of these heavier vehicle coating facilities the option to elect to be regulated under this final rulemaking instead of final-form § 129.52d. The EPA did not provide cost estimates in the 2008 ALDT CTG for these types of surface coating operations. The Department developed its estimate of costs for the potentially subject owners and operators to implement the final rulemaking measures by using the cost estimates for implementing the recommended RACT measures of the 2008 MMPP CTG.

The EPA estimated that the annual cost to owners and operators to comply with regulations based on the 2008 MMPP CTG would be \$10,500 per facility and estimated the cost effectiveness for controlling the VOC emissions would be \$1,758 per ton of VOC emissions reduced.¹⁴ The EPA believes that the work practice recommendations in the 2008 MMPP CTG will result in a net cost savings for coating-related and cleaning activities. The recommended work practices for coating-related and cleaning activities would reduce the amounts of VOC emissions overall from coating operations by reducing the amounts of VOC-containing coating and cleaning materials that are lost to evaporation, spillage, and waste, and reducing or eliminating associated VOC emissions.

The final rulemaking provides for compliance through the use of complying coating materials and through work practice standards for coating-related activities and cleaning materials. Flexibility in compliance is provided for an owner or operator of a separate coating line at an automobile and light-duty truck assembly coating facility and an owner or operator of a facility that coats bodies or body parts for new heavier vehicles by the option to remain subject to the requirements of final-form § 129.52d or to elect to be subject to final-form § 129.52e. The final rulemaking provides flexibility to all of the potentially affected owners and operators by amending § 129.51(a) to extend its applicability to the owner and operator of a coating operation subject to this final rulemaking. 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 of the final rulemaking, by submitting the alternative method to the Department for review and approval in an applicable plan approval or operating permit, or both.

The VOC emission limitations established by this final rulemaking do not require the submission of applications for amendments to existing operating permits. These requirements will 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 will be incorporated as applicable requirements in the permit within 18 months of the promulgation of the final 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

¹⁴ *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts*, EPA-453/R-08-003, page 40.

under the Clean Air Act within the time frame required by standards or regulations." Consequently, upon promulgation as a final-form regulation, the requirements will apply to affected owners and operators irrespective of a modification to the Operating Permit.

New legal, accounting or consulting procedures will not be required.

(16) List the persons, groups or entities, including small businesses, which will be required to comply with the regulation. Approximate the number that will be required to comply.

The final rulemaking applies to the owners and operators of automobile and light-duty truck assembly coating operations described in detail above in the response to Question 15. The Department estimates that approximately 61 businesses, all of which are likely to be small businesses, may potentially be required to comply with the final rulemaking. Please also see the response to Question 15 for information on how the numbers of potentially subject owners and operators were developed.

(17) Identify the financial, economic and social impact of the regulation on individuals, small businesses, businesses and labor communities and other public and private organizations. Evaluate the benefits expected as a result of the regulation.

The adverse impacts will be the financial and administrative costs of compliance and compliance monitoring, as well as the recordkeeping and reporting burden, if any, incurred by owners and operators of affected sources. The main benefit of the final rulemaking will be reduced VOC emissions into the atmosphere and reduced formation of ground-level ozone as a result. Reduced formation of ground-level ozone will support improved public health and welfare for the citizens and environment of this Commonwealth. There are additional benefits, as described below.

As discussed in the responses to Questions 15 and 19, the Department determined that the owners and operators in this Commonwealth likely to be affected by the final rulemaking measures are the owners and operators of facilities that surface coat bodies and body parts for new heavier vehicles. The EPA did not provide compliance cost estimates in the 2008 ALDT CTG for these types of surface coating operations. The Department developed its estimate of the financial impact for the potentially subject owners and operators implementing the final rulemaking measures by using the cost estimates for implementing the recommended RACT measures of the 2008 MMPP CTG. The cost to the potentially affected population will be about the same whether the owners and operators choose to comply with the state's regulation adopted under the 2008 MMPP CTG (final rulemaking for § 129.52d) or the 2008 ALDT CTG (final rulemaking for § 129.52e). The Department expects that the annual financial impact to these owners and operators will be less than the estimated maximum costs due to flexibility in choosing compliance options.

Please see the response to Question 15 for the detailed explanation of how the numbers of potentially subject owners and operators were developed. Please see the response to Question 19 for the detailed explanation of how the emission reduction amounts and cost numbers were developed.

The Department estimates that the owners and operators of approximately 61 surface coating operations, all of which are likely to be small businesses, may potentially be affected by the final rulemaking.

The Department identified 10 potentially subject permitted facility owners and operators from its databases that will likely be required to implement the VOC control measures of the final rulemaking. The Department estimates that the maximum potential amount of actual annual VOC emission reductions

– a key benefit of the final rulemaking – that could be achieved by this group through implementing the final rulemaking VOC control measures is approximately 111 tons, based on the 2013 reported emissions of these 10 facilities, and depending on the level of compliance already being achieved at these facilities. The estimated annual maximum combined cost for the owners and operators of these 10 potentially subject permitted facilities is \$195,138. The estimated annual maximum cost per facility owner and operator is approximately \$19,514.

Similarly, the Department estimates that implementation of the final-form VOC control measures and work practice requirements could generate potential VOC emission reductions of as much as 413 tons per year from the 37 potentially subject small business-sized facilities identified by the SBDC EMAP, depending on the level of compliance already being achieved at these facilities. The estimated annual cost to the owners and operators of these 37 potentially subject non-permitted facilities is \$726,054. The estimated maximum annual cost per facility owner and operator is approximately \$19,623.

The owners and operators of the remaining 14 facilities ($61 - 10 - 37 = 14$) will only be subject to compliance monitoring and daily recordkeeping requirements and, if requested by the Department, reporting requirements. The owner or operator of a facility that is subject to the final rulemaking below the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls, will be required to maintain daily records sufficient to demonstrate that their emissions are below the VOC emissions threshold that triggers implementation of control measures and work practice standards.

The financial and operational impact of implementing the recordkeeping and reporting requirements for owners and operators subject to the final rulemaking should be minimal. All owners and operators of surface coating processes in this Commonwealth, regardless of the facility's annual emission rate, are currently required to develop daily records of certain parameters under § 129.52(c) for coatings, thinners, and other components as supplied and the VOC content of as applied coatings. The daily records required under final-form § 129.52e(f) are equivalent to the daily records required under existing § 129.52(c). The Department expects that the owners and operators of facilities that are potentially subject to the final rulemaking are already keeping the required records; therefore, there should be little additional financial or administrative burden for these owners and operators to comply with the final rulemaking recordkeeping provisions.

The final rulemaking provides for compliance through the use of complying coating materials and through work practice standards for coating-related activities and cleaning materials, as well as the use of an alternative compliance method, such as add-on controls, under § 129.51. The cost of substituting complying coating materials for non-complying coating materials should be minimal. Low-VOC content coating materials are readily available at a cost that is not significantly greater than the high-VOC content coating materials they replace as a result of the development of NSPS-compliant low-VOC content coating materials as well as NESHAP-compliant low-HAP content coating materials, since lower HAP content usually means lower VOC content.

The implementation of the work practices for coating-related activities and cleaning materials is expected to result in a net cost savings for affected owners and operators for coating and cleaning materials. The recommended work practices for coating-related activities and cleaning materials would reduce the amounts of VOC emissions overall from coating operations by reducing the amounts of VOC-containing coating and cleaning materials that are lost to evaporation, spillage, and waste, and reducing or eliminating associated VOC emissions, thereby reducing the costs of purchasing coating and cleaning

materials for use in the operation as well as decreasing the amount of emissions fees that must be paid for VOC emissions, if applicable.

Flexibility in compliance is provided for an owner or operator of a separate coating line at an automobile and light-duty truck assembly coating facility and an owner or operator of a facility that coats bodies or body parts for new heavier vehicles by the option to remain subject to the requirements of final-form § 129.52d or to elect to be subject to final-form § 129.52e. The final rulemaking provides flexibility to all of the potentially affected owners and operators by amending § 129.51(a) to extend its applicability to the owner and operator of a coating operation subject to this final rulemaking. Section 129.51(a) authorizes the owner or operator to achieve compliance through an alternative method, which will achieve VOC emission reductions equal to or greater than those of the final rulemaking, by submitting the alternative method to the Department for review and approval in an applicable plan approval or operating permit, or both.

The projected estimated reductions in VOC emissions from automobile and light-duty truck assembly coatings and coatings for heavier vehicles and the subsequent reduced formation of ground-level ozone will help ensure that the owners and operators of regulated facilities, farms and agricultural enterprises, hardwoods and timber industries and tourism-related businesses, and employees, residents of labor communities, citizens and the environment of this Commonwealth experience the benefits of improved health and welfare resulting from the implementation of the final-form VOC emission reduction measures to attain and maintain the ozone NAAQS in this Commonwealth. Although the final rulemaking is designed primarily to address ground-level ozone air quality, the reformulation or substitution of low-VOC content coatings and cleaning 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 usage of high-VOC content and high-HAP content solvents will benefit groundwater quality through reduced loading on water treatment plants and in reduced quantities of high-VOC content and high-HAP content solvents leaching into the ground and streams and rivers. The improvements in ground-level ozone air quality and groundwater quality will provide economic and social benefits through reduced need for medical treatment for asthma and lung-related illnesses and reduced costs for repairing damage to infrastructure, as well as through improved crop yields, healthier forests and wildlife, and increased tourism to see the beautiful natural areas of the Commonwealth.

Please see the response to Question 10 for detailed information about the anticipated health and welfare benefits from the final rulemaking.

Costs and cost-effectiveness of the anticipated benefits of the final rulemaking are discussed in the response to Question 18.

(18) Explain how the benefits of the regulation outweigh any cost and adverse effects.

The benefits of the final rulemaking to the public health and welfare are expected to outweigh the costs that may be incurred by affected owners and operators as a result of implementing the final rulemaking control measures. As explained in the response to Question 19, the range of cost effectiveness of implementing the final-form VOC emission control measures is estimated to be \$941 to \$1,758 per ton of VOC emissions reduced on an annual basis from affected facilities. Also as explained in the response to Question 19, the maximum anticipated total annual costs to the owners and operators of the potentially subject facilities range from \$105,000 to \$195,138 collectively for the 10 facilities identified by the Department in its databases and from \$388,500 to \$726,054 collectively for the 37 potentially subject small business-sized facilities identified by the SBDC EMAP. The Department expects that the costs to

the potentially regulated industry in this Commonwealth will be at the lower end of these ranges because low-VOC content coating materials are readily available at a cost that is not significantly greater than the high-VOC content coating materials they replace as a result of the development of NSPS-compliant low-VOC content coating materials, as well as NESHAP-compliant low-HAP content coating materials, since lower HAP content usually means lower VOC content.

As discussed in the response to Question 10, the monetized health benefits to Commonwealth residents and the economic benefits to the Commonwealth's agricultural, hardwoods and tourism industries as a result of attaining and maintaining the ground-level ozone NAAQS, achieved in part through reduced emissions of ozone precursors from Commonwealth automobile and light-duty truck assembly coating operations and heavier vehicle coating operations, are considerable in comparison to the costs that may be incurred by the owners and operators of potentially subject facilities to comply with the final rulemaking measures. The EPA has estimated the monetized health benefits of attaining the 2008 8-hour ozone NAAQS of 0.075 ppm to range from \$8.3 billion to \$18 billion on a National basis by 2020. Prorating that benefit to the Commonwealth, based on population, results in a public health benefit of \$337 million to \$732 million. 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 2025.¹⁵ Prorating that benefit to the Commonwealth, based on population, results in a public health benefit of \$63 million to \$189 million. The Department is not stating that these estimated monetized health benefits would all be the result of implementing the final rulemaking RACT measures, but the EPA estimates are indicative of the benefits to Commonwealth residents and the owners and operators of businesses and industries of attaining the 2008 and 2015 8-hour ozone NAAQS.

The estimated annual costs of \$105,000 to \$195,138, collectively, that may be incurred by the owners and operators of the 10 potentially affected facilities identified by the Department and the estimated annual costs of \$388,500 to \$726,054, collectively, that may be incurred by the owners and operators of the 37 potentially affected small business-sized facilities identified by the SBDC EMAP for implementing the final-form VOC emission control measures are low in comparison to the potential economic gains in public health and welfare to Commonwealth residents of attaining and maintaining the 2008 and 2015 8-hour ozone NAAQS. Further, as discussed in the response to Question 10, the economic benefits to the Commonwealth's agricultural and hardwoods industries, which have total annual economic impacts of \$75 billion and \$18.4 billion respectively, of attaining and maintaining the ozone NAAQS through reduced emissions of ozone precursors from surface coating processes subject to this final rulemaking, outweigh the estimated maximum annual costs of \$105,000 to \$195,138 that may be incurred collectively by the owners and operators of the 10 potentially affected facilities identified by the Department and the estimated annual costs of \$388,500 to \$726,054 that may be incurred collectively by the owners and operators of the 37 potentially affected small business-sized facilities identified by the SBDC EMAP.

(19) Provide a specific estimate of the costs and/or savings to the regulated community associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

The recommended RACT VOC emission reduction measures included in the 2008 ALDT CTG are based on VOC emissions data from information gathered by the EPA during the development of the 2004 NESHAP and from VOC emissions data submitted to the EPA in 2008 by the Alliance of Automobile

¹⁵ *Regulatory Impact Analysis of the Final Revisions to the National Ambient Air Quality Standards for Ground-Level Ozone*, September 2015, <https://www3.epa.gov/ttn/naaqs/standards/ozone/data/20151001ria.pdf>.

Manufacturers member companies and non-member companies.¹⁶ The owner or operator of an automobile and light-duty truck assembly coating facility that is already implementing the requirements of the 2004 NESHAP and the control measures reported in 2008 by the Alliance of Automobile Manufacturers and that would potentially be subject to the final rulemaking measures will likely not have additional costs to comply with the final rulemaking measures. The EPA therefore projected an estimated cost of \$0 to the owners and operators of automobile and light-duty truck assembly coating facilities potentially subject to regulations implementing the recommended RACT measures of the 2008 ALDT CTG.¹⁷

However, the owners and operators of none of the permitted facilities identified by the Department as potentially subject to the final rulemaking have permits implementing the 2004 NESHAP requirements. The Department also determined that most of the permitted facility owners and operators, as well as the facility owners and operators identified by the SBDC EMAP, are likely surface coating bodies and body parts for heavier vehicles. As discussed in the response to Question 13, the EPA recommended in both the 2008 ALDT CTG and the 2008 MMPP CTG that a state consider giving an owner or operator of a facility that coats bodies or body parts for new heavier vehicles the option to comply with either of the state's regulation adopted under the 2008 MMPP CTG (final rulemaking for § 129.52d) or the 2008 ALDT CTG (final rulemaking for § 129.52e).¹⁸ The EPA further stated in the 2008 ALDT CTG and the 2008 MMPP CTG that due to the stringency of the RACT measures recommended in the 2008 ALDT CTG, owners and operators of heavier vehicle coating operations electing to comply with regulations implementing the recommended VOC control measures of the 2008 ALDT CTG instead of regulations implementing the recommended RACT measures of the 2008 MMPP CTG will achieve at least equivalent, if not greater, control of VOC emissions.¹⁹

Consistent with the 2008 ALDT CTG and the 2008 MMPP CTG, the final rulemaking provides the owner or operator of a facility that coats a body or body part for a new heavier vehicle the option to elect to be regulated under this final rulemaking instead of final § 129.52d. The Department developed its estimate of costs for the potentially subject owners and operators implementing the final rulemaking measures by using the cost estimates for implementing the recommended RACT measures of the 2008 MMPP CTG since no cost estimates were provided by the EPA in the 2008 ALDT CTG for these types of surface coating operations. The Department likewise used the EPA's estimate from the 2008 MMPP CTG for the amount of VOC emission reductions that will be achieved by implementing the recommended control measures.

The EPA estimated that the annual cost to owners and operators to comply with regulations based on the 2008 MMPP CTG will be \$10,500 per facility and estimated the cost effectiveness for controlling the VOC emissions will be \$1,758 per ton of VOC emissions reduced.²⁰ The EPA also estimated that implementing the RACT measures of the 2008 MMPP CTG will achieve VOC emission reductions of 35%.²¹

¹⁶ *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006, pages 5- 6.

¹⁷ *Ibid.*, page 23.

¹⁸ *Ibid.*, page 4, and *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts*, EPA-453/R-08-003, page 4.

¹⁹ *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006, page 5, and *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts*, EPA-453/R-08-003, pages 4-5.

²⁰ *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts*, EPA-453/R-08-003, page 40.

²¹ *Ibid.*

The Department therefore estimates that the maximum potential amount of actual annual VOC emission reductions that may be achieved by implementing the final rulemaking is approximately 111 tons, based on the 2013 reported emissions by the 10 potentially subject permitted facility owners and operators identified from the Department's databases that will likely be required to implement the VOC control measures of the final rulemaking (35% reduction x 319 tons VOC emissions = 111 tons reduced). As noted above in the response to Question 15, these facilities are considered small businesses under the SBA Small Business Size Regulations. The estimated annual cost to the owners and operators of these 10 potentially subject permitted facilities will be a total of \$195,138 (111 tons reduced x \$1,758 per ton reduced = \$195,138). The cost per facility owner and operator will be approximately \$19,514, which is higher than the EPA's estimated cost per facility of \$10,500 for implementing the recommended RACT measures of the 2008 MMPP CTG. This may be due in part to the Commonwealth-specific emission data used in the calculation.

Alternatively, the Department estimated that the cost effectiveness to these 10 facility owners and operators, based on the EPA's facility cost of \$10,500, could be as little as \$946 per ton of VOC emissions reduced (10 facilities x \$10,500 = \$105,000; \$105,000 / 111 tons reduced = \$946 per ton reduced). This is less than the cost effectiveness of \$1,758 per ton reduced estimated by the EPA for implementing the recommended RACT measures of the 2008 MMPP CTG.

The Department therefore estimates that the range of cost effectiveness to these 10 facility owners and operators for implementing the final rulemaking is \$946/ton VOC emissions reduced to \$1,758/ton reduced on an annual basis. The range of cost to this group for implementing the final VOC emission control measures is estimated to be \$10,500 to \$19,514 per year per facility. The estimated total annual cost of implementing the final rulemaking for this group of potentially subject owners and operators ranges from \$105,000 to \$195,138. The Department expects that the annual costs to the regulated industry in this Commonwealth will be at the lower end of these ranges because low-VOC content coating materials are readily available at a cost that is not significantly greater than the high-VOC content coatings they replace as a result of the development of NSPS-compliant low-VOC content coating materials, as well as NESHAP-compliant low-HAP content coating materials, since lower HAP content usually means lower VOC content. Therefore, the research and development of low-VOC content coating materials should already be complete and these expenses should not be a factor in the cost of complying with the final rulemaking VOC emission control measures.

The Department estimates a similar cost-effectiveness for the potentially subject businesses identified by the SBDC EMAP in its review of small businesses. Extrapolating the amount of total VOC emissions reported for the 2013 calendar year, 319 tons, from the 10 facilities identified in the Department's databases as emitting at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls, to the potentially subject 37 facilities identified by the SBDC EMAP that could have actual VOC emissions at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls, projects total VOC emissions of approximately 1,180 tons per year from these sources (10/319 tons = 37/X tons). Implementation of the recommended control measures could generate potential VOC emission reductions of as much as 413 tons per year (1,180 tons x 35% = 413 tons per year) from the 37 potentially subject facilities identified by the SBDC EMAP.

The estimated annual cost to the owners and operators of these 37 facilities will be \$726,054 (413 tons reduced x \$1,758 per ton reduced = \$726,054). The annual cost per facility owner and operator will be approximately \$19,623 (\$726,054 / 37 facilities = \$19,623), which is higher than the EPA's estimated

cost per facility of \$10,500 for implementing the recommended RACT measures of the 2008 MMPP CTG.

Alternatively, the Department estimated that the cost effectiveness to these 37 potentially subject facility owners and operators, based on the EPA's facility cost of \$10,500, may be as little as \$941 per ton of VOC emissions reduced (37 facilities x \$10,500 = \$388,500; \$388,500 / 413 tons reduced = \$941 per ton reduced). This is less than the cost effectiveness of \$1,758 per ton reduced estimated by the EPA for implementing the recommended RACT measures of the 2008 MMPP CTG.

The Department, therefore, estimates that the range of cost effectiveness to these 37 potentially subject facility owners and operators for implementing the final rulemaking is \$941/ton VOC emissions reduced to \$1,758/ton reduced on an annual basis. The range of cost to this group for implementing the final-form VOC emission control measures is estimated to be \$10,500 to \$19,623 per year per facility. The estimated total annual cost of implementing the final rulemaking for this group of potentially subject owners and operators ranges from \$388,500 to \$726,054.

The implementation of the work practices for coating-related activities and the use and application of cleaning materials is expected to result in a net cost savings for affected owners and operators for coating and cleaning materials. The recommended work practices for coating-related and cleaning activities will reduce the amounts of VOC emissions overall from coating operations by reducing the amounts of VOC-containing coating and cleaning materials that are lost to evaporation, spillage, and waste, and reducing or eliminating associated VOC emissions, thereby reducing the costs of purchasing coating and cleaning materials for use in the operation as well as decreasing the amount of emissions fees that must be paid for VOC emissions, if applicable.

The owner or operator of a facility that is subject to the final rulemaking will be required to maintain daily records sufficient to demonstrate compliance with the applicable requirements. All owners and operators of surface coating processes in the Commonwealth are currently required to keep daily records of certain parameters under § 129.52(c) for coatings, thinners, and other components as supplied and the VOC content of as applied coatings, regardless of the facility's annual emission rate. The daily records required under final-form § 129.52e(f) are equivalent to the daily records required under § 129.52(c). The Department expects that the owners and operators of facilities that are potentially subject to the final rulemaking are already keeping the required records; therefore, there should be little additional financial or administrative burden for these owners and operators to comply with the final rulemaking recordkeeping provisions. The daily records must be maintained onsite for 2 years, unless a longer period is required under Chapter 127 or a plan approval, operating permit or order issued by the Department.

New legal, accounting or consulting procedures would not be required.

(20) Provide a specific estimate of the costs and/or savings to local governments associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

No automobile and light-duty truck assembly coating operations or heavier vehicle coating operations have been identified as being owned by local governments. Consequently, the Department estimates that there are no costs and/or savings to local governments associated with compliance with the final-form regulation.

(21) Provide a specific estimate of the costs and/or savings to state government associated with the implementation of the regulation, including any legal, accounting, or consulting procedures which may be required. Explain how the dollar estimates were derived.

No automobile and light-duty truck assembly coating operations or heavier vehicle coating operations have been identified as being owned by state government. Consequently, the Department estimates that there are no costs and/or savings to local governments associated with compliance with the final-form regulation.

(22) For each of the groups and entities identified in items (19)-(21) above, submit a statement of legal, accounting or consulting procedures and additional reporting, recordkeeping or other paperwork, including copies of forms or reports, which will be required for implementation of the regulation and an explanation of measures which have been taken to minimize these requirements.

No additional legal, accounting, or consulting procedures are expected for the groups identified in items (19)-(21) above. As for reporting, recordkeeping or other paperwork, an owner or operator subject to this final rulemaking will be required to keep daily records of certain parameters for coatings and cleaning materials used and, if requested by the Department, will be required to submit the records to the Department. An owner or operator of a facility at or above the emissions threshold for implementing control measures will also be required to develop a written work practice plan to minimize VOC emissions from cleaning and purging of equipment associated with all coating operations for which emission limits are required, and to submit it to the Department if requested. The Department does not anticipate developing new forms or reports.

(23) In the table below, provide an estimate of the fiscal savings and costs associated with implementation and compliance for the regulated community, local government, and state government for the current year and five subsequent years.

	Current FY Year 15/16	FY+1 Year 16/17	FY+2 Year 17/18	FY+3 Year 18/19	FY+4 Year 19/20	FY+5 Year 20/21
SAVINGS:	\$	\$	\$	\$	\$	\$
Regulated Community		0.00	0.00	0.00	0.00	0.00
Local Government	0.00	0.00	0.00	0.00	0.00	0.00
State Government		0.00	0.00	0.00	0.00	0.00
Total Savings	0.00	0.00	0.00	0.00	0.00	0.00
COSTS:	\$	\$	\$	\$	\$	\$
Regulated Community	0.00	52,500 to 97,569	105,000 to 195,138	105,000 to 195,138	105,000 to 195,138	105,000 to 195,138
Local Government	0.00	0.00	0.00	0.00	0.00	0.00
State Government	0.00	0.00	0.00	0.00	0.00	0.00
Total Costs	0.00	52,500 to 97,569	105,000 to 195,138	105,000 to 195,138	105,000 to 195,138	105,000 to 195,138

REVENUE LOSSES:	\$	\$	\$	\$	\$	\$
Regulated Community	0.00	0.00	0.00	0.00	0.00	0.00
Local Government	0.00	0.00	0.00	0.00	0.00	0.00
State Government	0.00	0.00	0.00	0.00	0.00	0.00
Total Revenue Losses	0.00	0.00	0.00	0.00	0.00	0.00

(23a) Provide the past three-year expenditure history for programs affected by the regulation.

Program	FY-3 (12/13)	FY-2 (13/14)	FY-1 (14/15)	Current FY (15/16)
Environmental Program Management (161-10382)	\$24,965,000	\$25,733,000	\$28,517,000	\$28,277,000
Clean Air Fund Major Emission Facilities (215-20077)	\$18,464,000	\$18,413,000	\$16,870,000	\$22,039,000
Clean Air Fund Mobile and Area Facilities (233-20084)	\$10,198,000	\$8,036,000	\$9,811,000	\$10,250,000

(24) For any regulation that may have an adverse impact on small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012), provide an economic impact statement that includes the following:

(a) An identification and estimate of the number of small businesses subject to the regulation.

The Department estimates that approximately 61 small business-sized facility owners and operators may be subject to the final rulemaking. It is possible that the final rulemaking will also apply to owners and operators of other facilities that have not yet been identified. If the final rulemaking does apply to other facilities, they will likely also be small businesses

By way of explanation, the final rulemaking applies to the owner and operator of an automobile and light-duty truck assembly coating operation. This final rulemaking also applies to the owner and operator of an automobile and light-duty truck assembly coating operation that operates a separate coating line at the facility on which a coating is applied to another part intended for use in a new automobile or new light-duty truck or to an aftermarket repair or replacement part for an automobile or light-duty truck as well as to the owner and operator of a facility that coats a body or body part for a new heavier vehicle, if the owner or operator elects to comply with this final rulemaking (final-form § 129.52e) instead of the final rulemaking for § 129.52d. This final rulemaking also applies to the owner and operator of a facility that performs a coating operation subject to this final rulemaking on a contractual basis.

The Department reviewed its databases and identified 13 facilities whose owners and operators may be subject to the final rulemaking. The owners and operators of 12 of these 13 facilities manufacture or surface coat, or both, bodies or body parts for new heavier vehicles such as fire trucks, ambulances and

tow trucks and will only be subject to this final-form rulemaking if they elect to comply with this final-form rulemaking instead of complying with the final-form rulemaking for § 129.52d. The owner and operator of the remaining facility may potentially be subject based on previous surface coating operations. For purposes of discussing the potential impacts of this final rulemaking, however, the Department assumed that the owners and operators of these 13 facilities will be subject to this final rulemaking. The owners and operators of the 13 potentially subject facilities identified by the Department were determined to be small businesses under the SBA Small Business Size Regulations. The Pennsylvania SBDC EMAP provided the Department with a list of 48 small business-sized facilities that may potentially be subject to the final rulemaking. The combined lists provide a total of 61 small business-sized facility owners and operators that may be subject to the final rulemaking.

(b) The projected reporting, recordkeeping, and other administrative costs required for compliance with the proposed regulation, including the type of professional skills necessary for preparation of the report or record.

The financial and administrative costs for complying with the recordkeeping and reporting requirements for owners and operators at, above, and below the emissions threshold for implementing control measures should be minimal. All owners and operators of surface coating processes in this Commonwealth, regardless of the facility's annual emission rate, are currently required to develop daily records of certain parameters under § 129.52(c) for coatings, thinners, and other components as supplied and the VOC content of as applied coatings, and to maintain the records for 2 years under § 129.52(g). The daily records required under final-form § 129.52e(f) for owners and operators of surface coating processes subject to the final rulemaking are equivalent to the daily records required under existing § 129.52(c) for all surface coating process owners and operators. The Department expects that the owners and operators of facilities that are potentially subject to the final rulemaking are already developing and keeping the required records; therefore, there should be minimal additional financial or administrative burden for subject owners and operators to comply with the final rulemaking recordkeeping provisions.

The daily records required by this final rulemaking must be maintained onsite for 2 years by all subject owners and operators, unless a longer period is required under Chapter 127 or a plan approval, operating permit or order issued by the Department. Records must be submitted to the Department upon receipt of a written request from the Department.

The owner or operator of a facility that has total actual VOC emissions equal to or greater than 15 pounds (6.8 kilograms) per day, before consideration of controls, from all operations at the facility that apply an assembly coating or heavier vehicle coating subject to this final rulemaking, including VOC emissions from related cleaning activities, will be required to also develop and implement a written work practice plan to minimize VOC emissions from cleaning and purging of equipment associated with all coating operations for which emission limits are required. The work practice plan must be submitted to the Department upon receipt of a written request. Implementation of work practices is expected to provide a net cost savings to affected owners and operators by reducing the amounts of VOC-containing coating and cleaning materials that are lost to evaporation, spillage, and waste, and reducing or eliminating associated VOC emissions, thereby reducing the costs of purchasing coating and cleaning materials for use in the operation as well as decreasing the amount of emissions fees that must be paid for VOC emissions.

There are no further reporting, legal, accounting or consulting procedures established in the final rulemaking beyond what is currently required under § 129.52.

(c) A statement of probable effect on impacted small businesses.

Many potentially subject small business owners or operators may already be using complying coatings or may be complying through the use of an existing VOC emission capture system and add-on air pollution control device and will not need to make operational changes or incur additional costs to implement the requirements of the final rulemaking. The final rulemaking provides for compliance through the use of complying coating materials and through work practice standards for coating-related activities and cleaning materials. In this instance, most of the owners and operators identified by the Department as potentially subject to the final rulemaking have operations that surface coat bodies and body parts for new heavier vehicles, which are covered by the requirements of the final rulemaking for § 129.52d.

Flexibility in compliance for these owners and operators is provided by the option to remain subject to the requirements of final-form § 129.52d or to elect to be subject to final-form § 129.52e. The final rulemaking provides additional flexibility to all of the potentially subject owners and operators by amending § 129.51(a) to extend its applicability to the owner and operator of a coating operation subject to this final rulemaking. Section 129.51(a) authorizes the owner or operator to achieve compliance through an alternative method, which will achieve VOC emission reductions equal to or greater than those of the final rulemaking, by submitting the alternative method to the Department for review and approval in an applicable plan approval or operating permit, or both.

(d) A description of any less intrusive or less costly alternative methods of achieving the purpose of the proposed regulation.

There are no less intrusive or less costly alternative regulatory provisions available. The Department included flexibilities within the final rulemaking, but the final rulemaking must satisfy the Federal CAA RACT requirements. Implementing a RACT regulation is a Federal CAA requirement. The regulation must apply to the owners and operators of all subject sources that meet the applicable VOC emission thresholds regardless of business size. In accordance with sections 172(c)(1), 182(b)(2)(A) and 184(b)(1)(B) of the CAA, the final rulemaking establishes VOC content limits and other requirements consistent with the recommendations of the EPA 2008 ALDT CTG as RACT for these sources in this Commonwealth. See *Consumer and Commercial Products, Group IV: Control Techniques Guidelines in Lieu of Regulations for Miscellaneous Metal Products Coatings, Plastic Parts Coatings, Auto and Light-Duty Truck Assembly Coatings, Fiberglass Boat Manufacturing Materials, and Miscellaneous Industrial Adhesives*, 73 FR 58481, 58483.

(25) List any special provisions which have been developed to meet the particular needs of affected groups or persons including, but not limited to, minorities, the elderly, small businesses, and farmers.

Minorities, the elderly, small businesses, and farmers who are not owners or operators of a coating operation or facility subject to the final rulemaking will not be affected by the final rulemaking. For those that might be owners or operators of a subject coating operation or facility, no special provisions are necessary.

As discussed in the response to Question 24(b), the financial and administrative costs for complying with the recordkeeping and reporting requirements for owners and operators at, above, and below the emissions threshold for implementing control measures should be minimal. All owners and operators of surface coating processes in this Commonwealth, regardless of the facility's annual emission rate, are

currently required to develop daily records of certain parameters under § 129.52(c). The daily records required under final-form § 129.52e(f) for owners and operators of surface coating processes subject to the final rulemaking are equivalent to the daily records required under existing § 129.52(c) for all surface coating process owners and operators. The Department expects that the owners and operators of facilities that are potentially subject to the final rulemaking already develop and keep the required records; therefore, there should be minimal additional financial or administrative burden for subject owners and operators to comply with the final rulemaking recordkeeping provisions.

As discussed in the response to Question 19, low-VOC content coating materials are readily available at a cost that is not significantly greater than the high-VOC content coatings they replace as a result of the development of NSPS-compliant low-VOC content coating materials, as well as NESHAP-compliant low-HAP content coating materials, since lower HAP content usually means lower VOC content. Implementation of work practices is expected to provide a net cost savings to affected owners and operators by reducing the amounts of VOC-containing coating and cleaning materials that are lost to evaporation, spillage, and waste, and reducing or eliminating associated VOC emissions, thereby reducing the costs of purchasing coating and cleaning materials for use in the operation as well as decreasing the amount of emissions fees that must be paid for VOC emissions, if applicable.

(26) Include a description of any alternative regulatory provisions which have been considered and rejected and a statement that the least burdensome acceptable alternative has been selected.

The final rulemaking is considered the least burdensome acceptable method of ensuring compliance with the Federal CAA RACT mandate. In accordance with sections 172(c)(1), 182(b)(2)(A) and 184(b)(1)(B) of the CAA, the final rulemaking establishes VOC content limits and other requirements consistent with the recommendations of the EPA 2008 ALDT CTG as RACT for these sources in this Commonwealth. See *Consumer and Commercial Products, Group IV: Control Techniques Guidelines in Lieu of Regulations for Miscellaneous Metal Products Coatings, Plastic Parts Coatings, Auto and Light-Duty Truck Assembly Coatings, Fiberglass Boat Manufacturing Materials, and Miscellaneous Industrial Adhesives*, 73 FR 58481, 58483. No other regulatory provisions were considered.

The final rulemaking provides flexibility. The rulemaking provides for compliance through the use of complying coating materials and through work practice standards for coating-related activities and cleaning materials. The owners and operators identified of operations that coat bodies and body parts for new heavier vehicles have flexibility through the option to remain subject to the requirements of the final rulemaking for § 129.52d instead of electing to be subject to this rulemaking. The final rulemaking provides additional flexibility to all of the potentially affected owners and operators by amending § 129.51(a) to extend its applicability to the owner and operator of a coating operation subject to this proposed rulemaking. Many potentially subject owners or operators may already be using complying coatings or may be complying through the use of an existing VOC emission capture system and add-on air pollution control device and will not incur additional costs to implement the requirements of the final rulemaking.

(27) In conducting a regulatory flexibility analysis, explain whether regulatory methods were considered that will minimize any adverse impact on small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012), including:

(a) The establishment of less stringent compliance or reporting requirements for small businesses.

Minimal adverse impact is expected for the owners and operators of small business-sized facilities because compliant VOC content coating materials are readily available. Less stringent compliance requirements are not available, as the final rulemaking is and must be designed to achieve the RACT requirements of the CAA. The EPA set forth its recommendations for RACT for this industry in its *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA 453/R-08-006, Office of Air Quality Planning and Standards, EPA, September 2008. The Department included the least stringent recordkeeping and reporting requirements available that will ensure compliance with the final rulemaking. Recordkeeping is minimal and reporting is only necessary upon Department request. Please also see the response to Question 26.

(b) The establishment of less stringent schedules or deadlines for compliance or reporting requirements for small businesses.

Minimal adverse impact is expected for the owners and operators of small business-sized facilities. As explained in the response to Question 9, the final rulemaking is overdue to the EPA for approval as a SIP revision. Further delay of implementation is not recommended or feasible. The final rulemaking provides ample time for the owners and operators of facilities that might be subject to the regulatory requirements to comply.

(c) The consolidation or simplification of compliance or reporting requirements for small businesses.

Minimal adverse impact is expected for the owners and operators of small business-sized facilities. The compliance options in the final rulemaking should allow the owners and operators of subject small business-sized facilities to find an acceptable method of compliance appropriate to their operation. Reporting will only be necessary under the final rulemaking if requested in writing by the Department.

(d) The establishment of performing standards for small businesses to replace design or operational standards required in the regulation.

The final rulemaking includes performance standards. If an owner or operator of a subject coating operation, including a small business-sized facility, chooses not to comply solely by using complying coating materials, the owner or operator may achieve equivalent compliance through an alternative method under the final amendment of § 129.51(a) to extend its applicability to the owner and operator of a coating operation subject to this final rulemaking.

An owner or operator of a separate coating line at an automobile and light-duty truck assembly coating facility and an owner or operator of a facility that coats bodies or body parts for new heavier vehicles is provided the option to remain subject to the requirements of final-form § 129.52d or to elect to be subject to final-form § 129.52e.

(e) The exemption of small businesses from all or any part of the requirements contained in the regulation.

Implementing a RACT regulation is a Federal CAA requirement. The RACT regulation must apply to the owners and operators of all sources that meet the applicable VOC emission thresholds regardless of business size. The owner and operator of a facility may be classified as a small business under the Federal Small Business Size Regulations under 13 CFR Chapter 1, Part 121, while still emitting sufficient

emissions of VOC to be subject to a regulation designed to implement RACT measures for the control of those VOC emissions.

The owners and operators of small businesses may not be exempted from the final-form RACT requirements by this regulation. Nor is there a need to exempt the owners and operators of small businesses from this final rulemaking, as compliant low-VOC content materials are readily available and widely in use.

(28) If data is the basis for this regulation, please provide a description of the data, explain in detail how the data was obtained, and how it meets the acceptability standard for empirical, replicable and testable data that is supported by documentation, statistics, reports, studies or research. Please submit data or supporting materials with the regulatory package. If the material exceeds 50 pages, please provide it in a searchable electronic format or provide a list of citations and internet links that, where possible, can be accessed in a searchable format in lieu of the actual material. If other data was considered but not used, please explain why that data was determined not to be acceptable.

Acceptability standards for empirical, replicable, and testable data:

As explained above in the responses to Questions 9 and 10, the Commonwealth's SIP must include regulations to control VOC emissions from automobile and light-duty truck assembly coatings. Section 183(e) of the CAA directed the EPA to conduct a study of VOC emissions from the use of consumer and commercial products to assess their potential to contribute to violations of the NAAQS for ozone and to list for regulation those categories of products that account for at least 80% of the VOC emissions in the aggregate, on a reactivity-adjusted basis, from consumer and commercial products in areas that violate the NAAQS for ozone (namely, ozone nonattainment areas). The EPA published the initial list at 60 FR 15264 (March 23, 1995). The EPA included automobile and light-duty truck assembly coatings in this initial list.

Recommended controls for VOC emissions from these materials are included in a CTG issued by the EPA under the following notice, which lists the EPA's determination of product categories for which the EPA would produce CTGs instead of National regulations and which indicates that the EPA was simultaneously issuing final CTGs for these product categories: *Consumer and Commercial Products, Group IV: Control Techniques Guidelines in Lieu of Regulations for Miscellaneous Metal Products Coatings, Plastic Parts Coatings, Auto and Light-Duty Truck Assembly Coatings, Fiberglass Boat Manufacturing Materials, and Miscellaneous Industrial Adhesives*, 73 FR 58481 (October 7, 2008). The CTG applicable to this final rulemaking is the *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006, EPA, September 2008 (2008 ALDT CTG).

When developing the VOC emission limitations and other recommendations for RACT included in the 2008 ALDT CTG, the EPA took into account information from the: 1980 Federal NSPS regulatory limits and requirements for VOC emissions from automobile and light-duty truck assembly coatings; the 1977 CTG document entitled "Control of Volatile Organic Emissions from Existing Stationary Sources Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks (EPA-450/2-77-008); the 2004 Federal regulatory limits and requirements for hazardous air pollutant (HAP) emissions from surface coating of automobiles and light-duty trucks set forth at 40 CFR 63.3080—63.3176; and information provided in 2008 by the Alliance of Automobile Manufacturers.

The Department reviewed the information provided by the EPA in the 2008 ALDT CTG for establishing RACT for the sources that are potentially subject to this final rulemaking, and believes that the data used by the EPA to develop the RACT recommendations meet the acceptability standard for empirical, replicable, and testable data. Additionally, according to the EPA's Scientific Integrity Policy, at https://www.epa.gov/sites/production/files/2014-02/documents/scientific_integrity_policy_2012.pdf, the EPA adheres to the 2002 Office of Management and Budget (OMB) Information Quality Guidelines, the 2005 OMB Information Quality Bulletin for Peer Review, the EPA's Quality Policy (CIO 2106) for assuring the collection and use of sound scientific data and information, the EPA's Peer Review Handbook for internal and external review of scientific products, and the EPA's Information Quality Guidelines for establishing the transparency, integrity and utility of information published on the Agency's websites.²²

The Department reviews its own ambient air quality ozone monitoring data for purposes of reporting to the EPA to establish attainment and maintenance of the NAAQS for all areas of this Commonwealth as discussed in the response to Question 9. The Commonwealth's Ambient Air Monitoring Network is operated in accordance with all network design, siting, monitoring and quality assurance requirements set forth in 40 CFR Part 58 (relating to ambient air quality surveillance). All ozone concentration data measured during the ozone monitoring season, which runs from April to October, are subject to comparison with the ozone NAAQS set forth in 40 CFR Part 50 (relating to National primary and secondary ambient air quality standards). Specific guidance on the requirements for quality assurance and quality control of the ozone monitoring network can be found in the EPA's Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, Ambient Air Quality Monitoring Program, EPA-454/B-13-003, May 2013. The QA Handbook is available on the EPA web site at <http://www.epa.gov/ttnamti1/files/ambient/pm25/qa/QA-Handbook-Vol-II.pdf>.

Citations for data sources referenced in this Regulatory Analysis Form:

Consumer and Commercial Products, Group IV: Control Techniques Guidelines in Lieu of Regulations for Miscellaneous Metal Products Coatings, Plastic Parts Coatings, Auto and Light-Duty Truck Assembly Coatings, Fiberglass Boat Manufacturing Materials, and Miscellaneous Industrial Adhesives, 73 FR 58481 (October 7, 2008).

Control Techniques Guidelines for Auto and Light-Duty Truck Assembly Coatings, EPA 453/R-08-006, Office of Air Quality Planning and Standards, EPA, September 2008. The Auto and Light-Duty Truck Assembly Coatings CTG is available on the EPA website at: www.epa.gov/airquality/ozonepollution/SIPToolkit/ctgs.html.

National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks, 40 CFR part 63, subpart IIII (relating to National emission standards for hazardous air pollutants for Surface Coating of Automobiles and Light-Duty Trucks) (2004 NESHAP), set forth at 40 CFR 63.3080—63.3176.

Pennsylvania Department of Agriculture: The cited information is posted on their 'About PDA' page at this link:

http://www.agriculture.pa.gov/Pages/About-PDA.aspx#.VvGXZ_PD92M

²² United States Environmental Protection Agency, Scientific Integrity Policy, http://www.epa.gov/osa/pdfs/epa_scientific_integrity_policy_20120115.pdf, page 1.

Pennsylvania Department of Conservation and Natural Resources: The cited information is posted on their 'Do Business' page, 'Bids and Business Opportunities,' at this link:
<http://www.dcnr.state.pa.us/dobusiness/index.htm>

Pennsylvania Hardwoods Development Council, Biennial Report, 2009-2010. Copy available from the Bureau of Air Quality upon request.

Pennsylvania Hardwoods Development Council, Photo, *Pennsylvania Hardwood Leading the Nation*. Copy available from the Bureau of Air Quality upon request.

Regulatory Impact Analysis, Final National Ambient Air Quality Standard for Ozone, July 2011, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, NC, 27711,
http://www.eenews.net/assets/2011/10/04/document_gw_02.pdf.

Regulatory Impact Analysis of the Final Revisions to the National Ambient Air Quality Standards for Ground-Level Ozone, September 2015, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711,
<https://www3.epa.gov/ttn/naaqs/standards/ozone/data/20151001ria.pdf>

State Implementation Plans; General Preamble for Proposed Rulemaking on Approval of Plan Revisions for Nonattainment Areas—Supplement (on Control Techniques Guidelines), 44 FR 53761 (September 17, 1979).

(29) Include a schedule for review of the regulation including:

- | | |
|---|-------------------------------------|
| A. The date by which the agency received public comments: | <u>October 13 2015</u> |
| B. The date or dates on which public meetings or hearings were held: | <u>September 8, 9, and 10, 2015</u> |
| C. The expected date of promulgation of the proposed regulation as a final-form regulation: | <u>3rd Quarter 2016</u> |
| D. The expected effective date of the final-form regulation: | <u>Date of publication</u> |
| E. The date by which compliance with the final-form regulation will be required: | <u>January 1, 2017</u> |
| F. The date by which required permits, licenses or other approvals must be obtained: | <u>NA</u> |

(30) Describe the plan developed for evaluating the continuing effectiveness of the regulations after its implementation.

This regulation will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulation effectively fulfills the goals for which it was intended.

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By: _____
(Deputy Attorney General)

DEPARTMENT OF ENVIRONMENTAL
PROTECTION
ENVIRONMENTAL QUALITY BOARD

(AGENCY)

BY *Marysa H. Z. Lehr*

'JUL 01 2016

DATE OF APPROVAL

DATE OF APPROVAL

DOCUMENT/FISCAL NOTE NO. 7-490

(~~Executive Deputy General Counsel~~)
(~~Chief Counsel - Independent Agency~~)
(Strike inapplicable title)

DATE OF ADOPTION June 21, 2016

Check if applicable. No Attorney General Approval
or objection within 30 days after submission.

Check if applicable
Copy not approved. Objections attached.

BY *Patrick McDonnell*

TITLE PATRICK MCDONNELL
ACTING CHAIRPERSON

EXECUTIVE OFFICER CHAIRMAN OR SECRETARY

NOTICE OF FINAL RULEMAKING

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD**

**Control of VOC Emissions from Automobile and Light-Duty Truck Assembly Coating Operations
and Heavier Vehicle Coating Operations**

25 Pa. Code, Chapter 129

**FINAL RULEMAKING
ENVIRONMENTAL QUALITY BOARD
[25 PA. CODE CH. 129]**

**Control of Volatile Organic Compound Emissions from Automobile and Light-Duty Truck
Assembly Coating Operations and Heavier Vehicle Coating Operations**

The Environmental Quality Board (Board, EQB) amends Chapter 129 (relating to standards for sources) to read as set forth in Annex A. The final-form rulemaking adds § 129.52e (relating to control of VOC emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations) to adopt reasonably available control technology (RACT) requirements and RACT emission limitations for stationary sources of volatile organic compound (VOC) emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations including primer, primer-surfacer, topcoat and final repair coating materials, as well as VOC emissions from additional coatings applied during the vehicle assembly process and related cleaning activities. The final-form rulemaking also adds terms and definitions to § 129.52e to support the interpretation of the final-form measures and amends § 129.51 (relating to general) to support the addition of § 129.52e.

This final-form 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 this final-form rulemaking.

This final-form rulemaking is given under Board order at its meeting of June 21, 2016.

A. Effective Date

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

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. Persons with a disability may use the Pennsylvania AT&T Relay Service, (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This final-form rulemaking is available on the Department of Environmental Protection's (Department) web site at www.dep.pa.gov (select "Public Participation," then select "Environmental Quality Board (EQB)").

C. Statutory Authority

The final-form rulemaking is authorized under section 5(a)(1) of the Air Pollution Control Act (act) (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 act grants the Board the authority to adopt rules and regulations designed to implement the provisions of the Clean Air Act (CAA) (42 U.S.C.A. §§ 7401—7671q).

D. *Background and Purpose*

The purpose of this final-form rulemaking is to implement control measures to reduce VOC emissions from automobile and light-duty truck assembly coating operations and, when elected, certain other vehicle-related surface coating operations. These processes include the application of an automobile assembly coating or a light-duty truck assembly coating, or both, to a new automobile body or a new light-duty truck body, to a body part for a new automobile or for a new light-duty truck, or to another part that is coated along with the new automobile body or body part or new light-duty truck body or body part, as well as the application of coatings to a body or body part for a new heavier vehicle. A heavier vehicle is a self-propelled vehicle designed for transporting persons or property on a street or highway that has a gross vehicle weight rating over 8,500 pounds.

VOCs are precursors for ground-level ozone formation. Ground-level ozone, a public health and welfare hazard, is not emitted directly to the atmosphere from these sources, but forms from a photochemical reaction between VOCs and nitrogen oxides (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)), the final-form rulemaking establishes VOC emission limitations and other requirements consistent with the recommendations of the EPA 2008 Automobile and Light-Duty Truck Assembly Coatings Control Techniques Guidelines (2008 ALDT CTG) for these sources in this Commonwealth. See Consumer and Commercial Products, Group IV: Control Techniques Guidelines in Lieu of Regulations for Miscellaneous Metal Products Coatings, Plastic Parts Coatings, Auto and Light-Duty Truck Assembly Coatings, Fiberglass Boat Manufacturing Materials, and Miscellaneous Industrial Adhesives, 73 FR 58481, 58483 (October 7, 2008); and *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA 453/R-08-006, Office of Air Quality Planning and Standards, EPA, September 2008.

The EPA is responsible for establishing National Ambient Air Quality Standards (NAAQS) for six criteria pollutants considered harmful to public health and welfare, including 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 adversely affect animals in ways similar to humans. High levels 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 NAAQS at a level of 0.08 part per million (ppm) averaged over 8 hours. See 62 FR 38856 (July 18, 1997). In 2004, the EPA designated 37 counties in this Commonwealth as 8-hour ozone nonattainment areas for the 1997 8-hour ozone NAAQS. Based on the ambient air monitoring data for the 2014 and 2015 ozone seasons, 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 NAAQS. In accordance with the CAA, 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 NAAQS for another 10 years following the expiration of the initial 10-year period.

In March 2008, the EPA lowered the primary and secondary ozone NAAQS to 0.075 ppm averaged over 8 hours to provide even greater protection for children, other at-risk populations and the environment against the array of ground-level 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, Berks, Beaver, Bucks, Butler, Carbon, Chester, Delaware, Fayette, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia, Washington and Westmoreland Counties. The Department's analysis of 2014 ambient air ozone concentrations showed that all ozone samplers in this Commonwealth, except the Harrison sampler in Allegheny County, were monitoring attainment of the 2008 ozone NAAQS. The certified 2015 ozone season monitoring data indicate that all areas of this Commonwealth, including the Harrison sampler, are monitoring attainment of the 2008 ozone NAAQS as well. As with the 1997 ozone NAAQS, the Department must ensure that the 2008 ozone NAAQS are 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 air monitor violations in New Jersey and Maryland.

On October 1, 2015, the EPA again lowered the ozone NAAQS, this time to 0.070 ppm averaged over 8 hours. See 80 FR 65292 (October 26, 2015). Based on 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 samplers are located in Allegheny, Armstrong, Bucks, Delaware, Indiana, Lebanon, Montgomery and Philadelphia Counties. The Commonwealth must submit designation recommendations for the 2015 ozone NAAQS to the EPA by October 2016. The EPA's final designations for attainment and nonattainment areas for the 2015 ozone NAAQS are expected to take effect 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

automobile and light-duty truck assembly coating operations and heavier vehicle coating operations, will allow the Commonwealth to make progress in achieving and maintaining the 1997, 2008 and 2015 8-hour ozone NAAQS.

There are Federal regulatory limits for VOC emissions from automobile and light-duty truck assembly coatings for several of the coating categories. In 1977, the EPA issued a CTG document entitled *Control of Volatile Organic Emissions from Existing Stationary Sources Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks* (EPA-450/2-77-008) (1977 CTG). The 1977 CTG provided RACT recommendations for controlling VOC emissions from automobile and light-duty truck assembly surface coating operations. The recommendations were for VOC emission limits calculated on a daily basis for each electrodeposition primer operation, primer-surfacer operation, topcoat operation and final repair operation. The limits of § 129.52 (relating to surface coating processes), Table I, category 6, regarding automobile and light duty truck coating subcategories of prime coat, top coat and repair, were promulgated at 9 Pa.B. 1447 (April 28, 1979) to implement RACT measures consistent with the recommendations in the 1977 CTG for the automobile and light duty truck coating categories.

The EPA promulgated New Source Performance Standards (NSPS) in 1980 (1980 NSPS) for surface coating of automobile and light-duty trucks in 40 CFR Part 60, Subpart MM (relating to standards of performance for automobile and light duty truck surface coating operations). The 1980 NSPS established VOC emission limits calculated on a monthly basis for each electrodeposition primecoat operation, guidecoat (primer-surfacer) operation, and topcoat operation located in an automobile or light-duty truck assembly plant constructed, reconstructed or modified after October 5, 1979. See 45 FR 85415 (December 24, 1980) and 59 FR 51383 (October 11, 1994). The NSPS limits and the 1977 CTG recommendations for primer-surfacer and topcoat cannot be directly compared because of differences in the compliance period (monthly for the NSPS limits and daily for the 1977 CTG recommendations) and how transfer efficiency is considered (table values for the NSPS limits and actual transfer efficiency testing for the 1977 CTG recommendations).

In addition to establishing the 1980 NSPS VOC content limits, in 2004 the EPA promulgated 40 CFR Part 63, Subpart IIII (relating to National emission standards for hazardous air pollutants: surface coating of automobiles and light-duty trucks) (2004 NESHAP). See 69 FR 22602, 22623 (April 26, 2004). The 2004 NESHAP established organic hazardous air pollutant (HAP) emissions limitations calculated on a monthly basis for existing sources. More stringent limits apply to new sources that began construction after December 24, 2002. The 2004 NESHAP also specified work practices to minimize organic HAP emissions from the storage, mixing and conveying of coatings, thinners and cleaning materials, and from handling waste materials generated by the coating operation. Many HAPs are VOCs, but not all VOCs are HAPs. The requirements of the 2004 NESHAP apply to "major sources" of HAP from surface coatings applied to bodies or body parts for new automobiles or new light-duty trucks. For the purpose of regulating HAP emissions, a "major source" is considered to be a stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year (tpy) or more of any single listed HAP or 25 tpy or more of any combination of HAPs. See section 112(a)(1) of the CAA (42 U.S.C.A. § 7412(a)(1)) and 69 FR 22602, 22603.

When developing the VOC emission reduction RACT measures included in its 2008 ALDT CTG, the EPA took into account the VOC emission limitations of the 1980 NSPS as well as the VOC control recommendations of the 1977 CTG and the HAP emission reduction measures in the 2004 NESHAP for the automobile and light-duty truck assembly coating industries. Additionally, in 2008, the Alliance of Automobile Manufacturers, an industry trade association representing the majority of these facilities, provided the EPA with information from its member companies. Nonmember companies also submitted information to the EPA. The EPA reviewed and evaluated this information in conjunction with developing the 2008 ALDT CTG. The information included VOC emission rates for electrodeposition primer operations, primer-surfacer operations and topcoat operations on a daily and monthly average for calendar years 2006 and 2007. The VOC emission limits recommended in the 2008 Automobile and Light-Duty Truck Assembly Coatings CTG are based on 2006 and 2007 data from then-operating automobile and light-duty truck assembly coating operations. The resulting recommended VOC emission limits in the 2008 ALDT CTG for electrodeposition primer operations, primer-surfacer operations and topcoat operations are more stringent than the 1977 CTG and the 1980 NSPS limits. The recommended VOC emission limit for final repair operation in the 2008 ALDT CTG is the same as the 1977 CTG recommended limit for this category. The work practices recommendations in the 2008 ALDT CTG mirror those in the 2004 NESHAP.

This final-form rulemaking is designed to adopt VOC emission limitations and requirements consistent with the standards and recommendations in the 2008 ALDT CTG to meet the requirements of sections 172(c)(1), 182(b)(2) and 184(b)(1)(B) of the CAA. The final-form rulemaking applies these VOC emission limitations and requirements across this Commonwealth, as required under section 184(b)(1)(B) of the CAA. The VOC content and emission rate limitations and other requirements of the final rulemaking are not more stringent than the recommendations included in the EPA 2008 ALDT CTG upon which the final rulemaking is based. Consistent with section 4.2 of the act, the measures in this final-form rulemaking are reasonably required to achieve and maintain the health-based and welfare-based 8-hour ozone NAAQS in this Commonwealth and to satisfy related CAA requirements.

State regulations to control VOC emissions from automobile and light-duty truck assembly coating operations, as well as VOC emissions from the related cleaning activities, are required under Federal law. The Commonwealth's regulation will be approved by the EPA as a revision to the Commonwealth's SIP if the provisions meet the RACT requirements of the CAA and its implementing regulations. See 73 FR 58481, 58483. The EPA defines RACT as "the 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 State Implementation Plans; General Preamble for Proposed Rulemaking on Approval of Plan Revisions for Nonattainment Areas—Supplement (on Control Techniques Guidelines), 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.

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 CTG will be "substantially as effective as [National] regulations" in reducing emissions of VOC in ozone nonattainment areas. In 1995, the EPA listed automobile and light-duty truck assembly coatings on its section 183(e) list and, in 2008, issued a CTG for this product category. See 60 FR 15264, 15267 (March 23, 1995); 73 FR 58481; and *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA 453/R-08-006, Office of Air Quality Planning and Standards, EPA, September 2008. The 2008 ALDT CTG document is available on the EPA web site at www.epa.gov/airquality/ozonepollution/SIPToolkit/ctgs.html.

In the 2008 notice of final determination and availability of final CTGs, the EPA determined that the RACT recommendations of the 2008 ALDT CTG would be substantially as effective as National regulations in reducing VOC emissions from the automobile and light-duty truck assembly coatings product category in ozone nonattainment areas. See 73 FR 58481. The 2008 ALDT CTG provides states with the EPA's recommendations of what constitutes RACT for the covered category. States may use the Federal recommendations provided in the 2008 ALDT 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 reviewed the RACT recommendations included in the 2008 ALDT 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 consistent with the recommendations provided in the 2008 ALDT CTG are appropriate to be implemented in this Commonwealth as RACT for this category.

This final-form rulemaking applies to the owner and operator of an automobile and light-duty truck assembly coating operation that applies an automobile assembly coating or a light-duty truck assembly coating, or both, to a new automobile body or a new light-duty truck body, to a body part for a new automobile or for a new light-duty truck, or to another part that is coated along with the new automobile body or body part or new light-duty truck body or body part. The owner or operator of a separate coating line at an automobile and light-duty truck assembly coating facility, and the owner or operator of a facility that coats a body or body part for a new heavier vehicle, have the option to elect to be regulated under this final-form rulemaking instead of final-form § 129.52d. These options are provided to allow these owners and operators

flexibility in complying with their permit conditions and to optimize their operations. Final-form § 129.52d is being processed as a final-form rulemaking concurrently with this final-form rulemaking, with the intention of concurrent adoption and publication. See ____ (Editor's note: The blank refers to the *Pennsylvania Bulletin* citation for final-form § 129.52d).

This final-form rulemaking also applies to the owner and operator of a facility that performs a coating operation subject to this final-form rulemaking on a contractual basis.

This final-form rulemaking does not apply to the use or application of an automobile and light-duty truck assembly coating by an owner or operator at a plastic or composites molding facility. The VOC content limits in the final-form rulemaking do not apply to an assembly coating supplied in a container with a net volume of 16 ounces or less or a net weight of 1 pound or less.

The Board is aware of 61 businesses in this Commonwealth, all of which are likely to be small businesses, whose owners and operators may be subject to the final-form rulemaking. The Board estimates that of this projected total of 61 potentially subject owners and operators, as many as 47 of the potentially subject facility owners and operators may have actual VOC emissions at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls. These owners and operators will be subject to the final-form VOC content limit requirements, work practice requirements, compliance monitoring and daily recordkeeping requirements and, if requested by the Department, reporting requirements. The owners and operators of the remaining potentially subject 14 facilities will only be subject to compliance monitoring and daily recordkeeping requirements and, if requested by the Department, reporting requirements.

Of the 61 owners and operators who may potentially be subject to this final-form rulemaking, the Department identified the owners and operators of 13 of these facilities from its databases. The owners and operators of 12 of these 13 facilities manufacture or surface coat, or both, bodies or body parts for new heavier vehicles such as fire trucks, ambulances and tow trucks and will only be subject to this final-form rulemaking if they elect to comply with this final-form rulemaking instead of complying with the final-form rulemaking for § 129.52d. The owner and operator of the remaining facility may potentially be subject based on previous surface coating operations. For purposes of discussing the potential impacts of this final-form rulemaking, however, the Board assumed that the owners and operators of all 13 facilities will elect to be subject to this final-form rulemaking. The Commonwealth's Small Business Development Center's Environmental Management Assistance Program (SBDC EMAP) reviewed the list of 13 potentially subject facilities reporting VOC emissions in 2013 identified by the Department from its databases and determined that all 13 of the facilities are considered a small business under the Federal Small Business Administration small business size regulations.

The owners and operators of the 13 facilities identified by the Department from its databases reported actual VOC emissions in 2013 totaling approximately 320 tons. The owners and operators of the ten facilities that may emit 15 pounds (6.8 kilograms) or more of total actual VOC emissions per day, including VOC emissions from related cleaning activities, before consideration of controls, reported actual VOC emissions equal to or greater than 2.7 tpy, totaling approximately 319 tons. Implementation of the recommended control measures by these

ten potentially subject facility owners and operators could generate reductions of as much as 111 tons of VOC emissions per year from the ten facilities, depending on the level of compliance already being achieved by these owners and operators. The estimated total maximum annual costs to these ten owners and operators could be up to \$195,138. The range of cost per regulated facility owner and operator for implementing the final-form VOC emission control measures is estimated to be approximately \$10,500 to \$19,514 per facility. The range of cost effectiveness to the regulated facility owners and operators is approximately \$946 per ton of VOC emissions reduced to \$1,758 per ton of VOC emissions reduced on an annual basis.

Similarly, the Board estimates that implementation of the final-form VOC control measures and work practice requirements could generate potential VOC emission reductions of as much as 413 tpy from the 37 potentially subject small business-sized facilities identified by the SBDC EMAP that are likely to be subject at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls, depending on the level of compliance already being achieved by the owners and operators of these facilities. The estimated annual cost to the owners and operators of these 37 potentially subject non-permitted small business-sized facilities is \$726,054. The estimated maximum annual cost per facility owner and operator is approximately \$19,623.

The ground-level ozone reduction measures included in this final-form rulemaking may achieve VOC emission reductions locally and may also reduce the transport of VOC emissions and ground-level ozone to downwind states. Adoption of VOC emission requirements for sources subject to this final rulemaking 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 ground-level ozone NAAQS.

The final-form rulemaking is required under the CAA and, consistent with section 4.2(a) of the act (35 P.S. §4004.2(a)), is reasonably required to achieve and maintain the health-based and welfare-based 8-hour ground-level ozone NAAQS and to satisfy related CAA requirements in this Commonwealth. Once published as a final-form rulemaking in the *Pennsylvania Bulletin*, this final-form rulemaking will be submitted to the EPA as a revision to the Commonwealth's SIP.

On February 11, 2016, the Air Quality Technical Advisory Committee (AQTAC) was briefed on the final-form rulemaking and the comments received on the proposed rulemaking, and they had no concerns. The AQTAC voted 16-0-1 (yes; no; abstain) to concur with the Department's recommendation to move the final-form rulemaking forward to the Board for consideration. The final-form rulemaking was discussed with the Citizens Advisory Council (CAC) Policy and Regulatory Oversight Committee on March 2, 2016. On the recommendation of the Policy and Regulatory Oversight Committee, on March 15, 2016, the CAC concurred with the Department's recommendation to forward the final-form rulemaking to the Board. The Small Business Compliance Advisory Committee (SBCAC) was briefed on the final-form rulemaking on April 27, 2016. The SBCAC voted unanimously to concur with the Department's recommendation to move the final-form rulemaking forward to the Board for consideration.

E. *Summary of Final-Form Rulemaking and Changes from Proposed to Final-Form Rulemaking*

§ 129.51. *General*

Subsection (a) is amended to establish that compliance with § 129.52e may be achieved by alternative methods.

Subsection (a)(3) is amended to establish that compliance by a method other than the use of a low-VOC content coating, adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent or ink which meets the applicable emission limitation in § 129.52e shall be determined on the basis of equal volumes of solids.

Subsection (a)(6) is amended to establish that 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 § 129.52e.

No changes are made to subsections (a), (a)(3) and (a)(6) from proposed.

§ 129.52e. *Control of VOC emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations*

The final-form rulemaking adds § 129.52e to regulate VOC emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations. As explained in subsection (c), § 129.52e supersedes the requirements of a RACT permit already issued under §§ 129.91—129.95 (relating to stationary sources of NO_x and VOCs) to the owner or operator to control, reduce or minimize VOC emissions from a process or coating subject to § 129.52e, except to the extent the RACT permit contains more stringent requirements.

Subsection (a)(1) establishes that the final-form rulemaking applies, as specified, to the owner and operator of an automobile and light-duty truck assembly coating operation that applies an automobile assembly coating or a light-duty truck assembly coating, or both, to a new automobile body or a new light-duty truck body, a body part for a new automobile or a new light-duty truck, or another part that is coated along with the new automobile body or body part or new light-duty truck body or body part.

Subsection (a)(2) establishes that the final-form rulemaking applies, as specified, to the owner and operator of an automobile and light-duty truck assembly coating operation that operates a separate coating line at the facility on which a coating is applied to another part intended for use in a new automobile or new light-duty truck or an aftermarket repair or replacement part for an automobile or light-duty truck if the owner or operator elects to comply with § 129.52e instead of § 129.52d. The separate coating of another part for use in a new automobile or new light-duty truck or an aftermarket repair or replacement part for an automobile or light-duty truck is included in the Miscellaneous Metal Products and Plastic Parts Coatings categories under section 183(e) and covered in the 2008 Miscellaneous Metal and Plastic Parts Coatings CTG (2008 MMPP CTG). The election occurs when the owner or operator notifies the Department by submitting a written statement to the appropriate Department regional office Air Quality Program Manager that specifies the intent to comply with § 129.52e instead of § 129.52d. Final-

form § 129.52d is being processed concurrently with this final-form rulemaking, with the intention of concurrent adoption and publication.

Subsection (a)(3) establishes that the final-form rulemaking applies, as specified, to the owner and operator of a heavier vehicle coating operation that coats a body or body part for a new heavier vehicle if the owner or operator elects to comply with § 129.52e instead of § 129.52d. Heavier vehicle coatings are included in the Miscellaneous Metal Products and Plastic Parts Coatings categories under section 183(e) of the CAA and are covered in the 2008 MMPP CTG. The election occurs when the owner or operator notifies the Department by submitting a written statement to the appropriate Department regional office Air Quality Program Manager that specifies the intent to comply with § 129.52e instead of § 129.52d.

Providing the election option under subsection (a)(2) and (3) effectuates the recommendations in the EPA 2008 ALDT CTG that a state consider giving an owner or operator of a separate coating line at an automobile and light-duty truck assembly coating facility the option of complying with the state's regulation adopted under the 2008 ALDT CTG instead of the 2008 MMPP CTG; and that a state give an owner or operator of a facility that coats bodies or body parts for new heavier vehicles the option to comply with either the state's regulation adopted under the 2008 MMPP CTG or the 2008 ALDT CTG. The separate coating of another part for use in a new automobile or new light-duty truck or an aftermarket repair or replacement part for an automobile or light-duty truck as well as heavier vehicle coatings are included in the Miscellaneous Metal Products and Plastic Parts Coatings categories under section 183(e) of the CAA and are therefore covered in the 2008 MMPP CTG. See 2008 ALDT CTG, page 4 and 2008 MMPP CTG, page 4.

Subsection (a)(4) establishes that the final-form rulemaking applies, as specified, to the owner and operator of a facility that performs a coating operation subject to § 129.52e on a contractual basis.

Subsection (a)(5) establishes that the final-form rulemaking does not apply to the use or application of an automobile and light-duty truck assembly coating by an owner or operator at a plastic or composite molding facility.

Subsection (b) establishes 25 definitions to support § 129.52e. A definition of "heavier vehicle" is included upon the request of the AQTAC at its April 3, 2014, meeting to improve the clarity of the final-form rulemaking and further delineate the types of vehicle coating operations subject to the final-form rulemaking.

Subsection (c) establishes that the requirements of this section supersede the requirements of a RACT permit issued under §§ 129.91—129.95 (relating to stationary sources of NO_x and VOCs) to the owner or operator of a source subject to this section prior to January 1, 2017, except to the extent the RACT permit contains more stringent requirements. The proposed compliance date was January 1, 2016; however the rulemaking was not finalized by January 1, 2016. The Board has revised the compliance date in the final rulemaking to January 1, 2017. January 1, 2017, is the mandated deadline required under the EPA's final rule pertaining to the *Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements* (80 FR 12279, March 6, 2015). The EPA stated that the RACT measures for the 2008 ozone National Ambient Air Quality Standard (NAAQS) must be implemented "as

expeditiously as practicable, but no later than January 1 of the 5th year after the effective date of a nonattainment designation.” The nonattainment designations across the country were effective for the 2008 ozone NAAQS on July 20, 2012 (77 FR 30088, 30143, May 21, 2012). Consequently, RACT measures for the 2008 8-hour ozone standard must be implemented by January 1, 2017.

Subsection (d)(1) establishes that beginning January 1, 2017, the VOC content limits specified in Tables I and II (relating to VOC content limits for primary assembly coatings; and VOC content limits for additional assembly coatings (grams of VOC per liter of coating excluding water and exempt compounds) as applied) apply to an owner and operator of a facility that has total actual VOC emissions equal to or greater than 15 pounds (6.8 kilograms) per day, before consideration of controls, from all operations at the facility that apply an assembly coating subject to this section, including VOC emissions from related cleaning activities. As with all RACT regulations, an owner or operator remains subject to the regulation even if the throughput or VOC emissions fall below the applicability threshold.

Subsection (d)(2) establishes that the VOC content limits specified in Tables I and II do not apply to an owner and operator of a facility that has total actual VOC emissions below 15 pounds (6.8 kilograms) per day, before consideration of controls, from all operations at the facility that apply an assembly coating subject to this section, including VOC emissions from related cleaning activities. This subsection also specifies that the VOC content limits in Tables I and II do not apply to an assembly coating supplied in a container with a net volume of 16 ounces or less or a net weight of 1 pound or less.

Subsection (e) establishes that beginning January 1, 2017, an owner and operator subject to the VOC content limits specified in Tables I and II must comply with specified work practices for coating-related activities and cleaning materials.

Subsection (f) establishes compliance monitoring and recordkeeping requirements.

Subsection (g) establishes measurement, calculation, sampling and testing methodologies. The Automobile Topcoat Protocol specified in subsection (g)(2)(i) for calculation of VOC emissions and rates applies not only to the owner and operator of an automobile and light-duty truck assembly coating operation, but also to the owner and operator of a facility that coats a body or body part for a new heavier vehicle that elects to comply with § 129.52e instead of § 129.52d.

Final-form § 129.52e contains two tables. Table I specifies VOC content limits for primary assembly coatings. The primary assembly coatings are applied to new automobile or new light-duty truck bodies, or to body parts for new automobiles or new light-duty trucks, as well as to other parts that are coated along with these bodies or body parts. These primary coatings are electrodeposition primer, primer-surfacer, topcoat and final repair. The Automobile Topcoat Protocol specified in subsection (g)(2)(i) and referenced in Table I applies not only to the owner and operator of an automobile and light-duty truck assembly coating operation, but also to the owner and operator of a facility that coats a body or body part for a new heavier vehicle that elects to comply with § 129.52e instead of § 129.52d. Table II specifies VOC content limits for additional assembly coatings. These additional coatings are applied during the vehicle assembly process and include glass bonding primer, adhesive, cavity wax, sealer, deadener, gasket/gasket

sealing material, underbody coating, trunk interior coating, bedliner, lubricating wax/compound and weatherstrip adhesive. The EPA VOC emission control recommendations included in the 2008 Automobile and Light-Duty Trucks Assembly Coatings CTG, and reflected in the final-form rulemaking, include the VOC content limits for the listed coatings.

The Board specifically requested comment on the proposed emission limit in Table II of 900 grams per liter of coating less water and exempt compounds for automobile and light-duty truck glass bonding primer. A limit of 700 grams per liter of coating less water and exempt compounds applies to a similar category, called automotive glass adhesive primer, in the existing adhesives regulations. See §§ 121.1, 129.77 and 130.702 (relating to definitions; control of emissions from the use or application of adhesives, sealants, primers and solvents; and emission standards). However, the EPA wrote in its notice of availability of the final 2008 Automobile and Light-Duty Trucks Assembly Coatings CTG that the cost of the testing required to confirm material performance and compliance with Federal crash safety standards and windshield integrity requirements would be unreasonable compared to the small emission reduction that would be achieved by the 700 grams per liter limit it had proposed for the 2008 ALDT CTG. See 73 FR 58481, 58486. The EPA explained that the small amount of additional emission reductions achieved by the 700 grams per liter limit are negligible compared to reductions potentially achieved by the 900 grams per liter limit and are more technically difficult to implement. See 73 FR 58481, 58486. The EPA thus concluded that the less stringent limit of 900 grams per liter for automobile and light-duty truck glass bonding primer is appropriate and satisfies RACT for automobile and light-duty truck assembly coating operations. See 73 FR 58481, 58486. The Board did not receive comments on this issue and the limit of 900 grams per liter limit of coating less water and exempt compounds is retained for the automobile and light-duty truck glass bonding primer category in final-form Table II.

No changes are made to subsections (a), (b), (f), (g) and Tables I and II from proposed. The only changes to § 129.52e from proposed are the change from a January 1, 2016, compliance date to a January 1, 2017, compliance date in subsections (c), (d) and (e).

F. Summary of Major Comments and Responses

The Board approved publication of the proposed rulemaking at its meeting of April 21, 2015. The proposed rulemaking was published at 45 Pa. B. 4351 (August 8, 2015). Three public hearings were held on September 8, 9 and 10, 2015, in Norristown, Harrisburg and Pittsburgh, respectively. The public comment period closed on October 13, 2015, for a 67-day public comment period. No public comments were received. The Independent Regulatory Review Commission (IRRC) provided comments on the proposed rulemaking. The comments received on the proposed rulemaking are summarized in this section and are also addressed in a Comment and Response Document which is available from the Department.

Compliance Date

IRRC recommended that the EQB establish a compliance date that allows for the proper development of a final-form regulation and full compliance by the regulated community. The Board agrees and revised the compliance date in the final-form rulemaking to January 1, 2017. The new compliance date of January 1, 2017, is the mandated deadline required under the EPA's

final rule pertaining to the *Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements* (80 FR 12279).

Option to Comply with Proposed Miscellaneous Metal Parts Surface Coating Processes, Miscellaneous Plastic Part Surface Coating Processes, and Pleasure Craft Surface Coatings Requirements

IRRC noted that the owner or operator of a separate coating line at an automobile and light-duty truck assembly coating facility, and the owner or operator of a facility that coats a body or body part for a new heavier vehicle, have the option to be regulated under this rulemaking or under the concurrently proposed rulemaking for the control of VOC emissions from miscellaneous metal parts surface coating processes, miscellaneous plastic parts surface coating processes and pleasure craft surface coatings (see EQB #7-491 or IRRC #3109). IRRC asked the Board to ensure that the two rulemakings are adopted on the same date. The Board agrees and notes that it intends to consider the two final-form rulemakings concurrently.

G. Benefits, Costs and Compliance

Benefits

The Statewide implementation of the VOC emission control measures in the final-form rulemaking will benefit the health and welfare of approximately 12.7 million residents and the numerous animals, crops, vegetation 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 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 economic value of some welfare losses due to high concentrations of ground-level ozone can be calculated, such as crop yield loss from soybeans due to both decreased seed production and

reduced size and quality of seeds and from visible injury to some leaf crops, including lettuce, spinach and tobacco, as well as visible injury to ornamental plants, including grass, flowers and shrubs. Other types of welfare loss may not be quantifiable, such as the reduced aesthetic value of trees growing in heavily visited parks. The Commonwealth's 59,000 farm families are the stewards of more than 7.7 million acres of farmland, with \$7.5 billion in cash receipts annually from production agriculture. In addition to production agriculture, the industry also raises revenue and supplies jobs through support services such as food processing, marketing, transportation and farm equipment. In total, production agriculture and agribusiness contributes nearly \$75 billion to the Commonwealth's economy (source: Department of Agriculture).

The Department of Conservation and Natural Resources (DCNR) is the steward of the State-owned forests and parks. DCNR awards millions of dollars in construction contracts each year to build and maintain the facilities in its parks and forests. Timber sales on State forest lands contribute to the \$5 billion-a-year timber industry. Hundreds of concessions throughout the park system help complete the park experience for both State and out-of-State visitors (source: DCNR). Further, the Commonwealth leads the Nation in growing volume of hardwood species, with 17 million acres in forest land. As the leading producer of hardwood lumber in the United States, the Commonwealth also leads in the export of hardwood lumber, exporting nearly \$800 million annually in lumber, logs, furniture products and paper products to more than 70 countries around the world. Recent United States Forest Service data show that the forest growth-to-harvest rate in this Commonwealth is better than 2 to 1. This vast renewable resource puts the hardwoods industry at the forefront of manufacturing in this Commonwealth. Through 2006, the total annual direct economic impact generated by the Commonwealth's wood industry was \$18.4 billion. The industry employed 128,000 people, with \$4.7 billion in wages and salaries earned. Production was 1.1 billion board feet of lumber annually (source: Strauss, Lord, Powell; Pennsylvania State University, June 2007, cited in Pennsylvania Hardwoods Development Council Biennial Report, 2009-2010).

Through deposition, ground-level ozone also contributes to pollution in the Chesapeake Bay. These effects can have adverse impacts including loss of species diversity and changes to habitat quality and water and nutrient cycles. High levels 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 reduction of ground-level ozone air pollution concentrations directly benefits the human and animal populations in this Commonwealth with improved ambient air quality and healthier environments. The agriculture and timber industries and related businesses benefit directly from reduced economic losses that result from damage to crops and timber. Likewise, the natural areas and infrastructure within this Commonwealth and downwind benefit directly from reduced environmental damage and economic losses.

This final-form rulemaking is designed to adopt VOC emission standards and emission limitations consistent with the standards and recommendations in the EPA's 2008 ALDT CTG to meet the requirements of sections 172(c)(1), 182(b)(2) and 184(b)(1)(B) of the CAA. The final-form rulemaking applies these standards and limitations across this Commonwealth, as required under section 184(b)(1)(B) of the CAA. Consistent with section 4.2 of the act, the measures in this final-form rulemaking are reasonably required to achieve and maintain the health-based and welfare-based 8-hour ozone NAAQS in this Commonwealth.

The Statewide implementation of the VOC emission control measures in the final-form rulemaking may generate reductions of as much as 111 tons of VOC emissions per year from the ten potentially affected facilities identified by the Department in its databases that are likely to be subject at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls. The owners and operators of these ten facilities will be required to implement the VOC control measures of the final-form rulemaking, depending on the level of compliance already being achieved by the owners and operators of these potentially affected facilities. These projected estimated reductions in VOC emissions and the subsequent reduced formation of ground-level ozone will help ensure that the owners and operators of businesses, citizens and the environment of this Commonwealth experience the benefits of improved health and welfare resulting from lowered concentrations of ground-level ozone. Commonwealth residents will also potentially benefit from improved groundwater quality through reduced quantities of VOCs and HAPs from the use of low-VOC content and low-HAP content automobile and light-duty truck assembly coatings and implementation of work practices for coating-related and cleaning-related activities.

Although the final-form rulemaking is designed primarily to address ozone air quality, the reformulation of high-VOC content coating materials to low-VOC content coating materials or the substitution of low-VOC content coating materials for high-VOC content coating 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 solvents will benefit groundwater quality through reduced loading on water treatment plants and in reduced quantities of high-VOC content and high-HAP content solvents leaching into the ground and streams and rivers.

The Statewide implementation of the final-form rulemaking control measures will assist the Commonwealth in reducing VOC emissions locally and the resultant local formation of ground-level ozone in this Commonwealth from surface coating processes subject to the final-form rulemaking as well as assist in reducing the transport of VOC emissions and ground-level ozone to downwind states. Statewide implementation will also facilitate implementation and enforcement of the final-form rulemaking in this Commonwealth. The measures in the final-form rulemaking are reasonably necessary to attain and maintain the health-based and welfare-based 8-hour ground-level ozone NAAQS and to satisfy related CAA requirements in this Commonwealth.

The final-form rulemaking may create economic opportunities for coating formulators and VOC emission control technology innovators, manufacturers and distributors through an increased demand for new or reformulated coating materials or for new or improved application or control equipment. In addition, the owners and operators of regulated facilities may choose to install and operate an emissions monitoring system or equipment necessary for an emissions monitoring method to comply with the final-form rulemaking, thereby creating an economic opportunity for the emissions monitoring industry.

Compliance costs

The Department reviewed its air quality databases and identified 13 facilities in this Commonwealth whose owners and operators may be subject to the final-form rulemaking. The owners and operators of 12 of these 13 facilities manufacture or surface coat, or both, bodies or body parts for new heavier vehicles such as fire trucks, ambulances and tow trucks and will only be subject to this final-form rulemaking if they elect to comply with this final-form rulemaking instead of the final-form rulemaking for § 129.52d. The owner and operator of the remaining facility may potentially be subject based on previous surface coating operations. For purposes of discussing the potential impacts of this final-form rulemaking, the Board assumed that the owners and operators of all 13 facilities will elect to be subject to this final-form rulemaking. According to the Department databases, the actual VOC emissions from these 13 facilities assumed to be subject to the final-form rulemaking totaled 320 tons in 2013. Of the 13 facilities reporting VOC emissions in 2013, the owners and operators of ten of these facilities reported VOC emissions totaling 2.7 tons or more; their combined reported emissions totaled 319 tons in 2013. Accordingly, the owners and operators of these ten facilities are assumed to emit 15 pounds (6.8 kilograms) or more of total actual VOC emissions per day, including VOC emissions from related cleaning activities, before consideration of controls, and will be required to implement the final-form VOC emission reduction measures, which include coating VOC content limits, work practice standards for coatings, development and implementation of a written work practice plan for cleaning materials, and compliance monitoring and daily recordkeeping requirements. The owners and operators of the remaining three facilities each reported VOC emissions below 2.7 tons; their combined reported VOC emissions totaled approximately 1 ton in 2013. The owners and operators of these three facilities are assumed to emit less than 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls, and will be subject only to the compliance monitoring and daily recordkeeping requirements.

For all subject owners and operators, the daily records are required to 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 or order issued by the Department. Records must be submitted to the Department in an acceptable format upon receipt of a written request from the Department.

The recommended RACT VOC emission reduction measures included in the 2008 ALDT CTG are largely based on the 2006 and 2007 data supplied by the Alliance of Automobile Manufacturers member companies and nonmember companies, the VOC emission limitations of the 1980 NSPS, the VOC control recommendations of the 1977 CTG and the 2004 NESHAP HAP emission reduction measures. While the owner or operator of an automobile and light-duty truck assembly coating or heavier vehicle surface coating facility area source of HAP may not meet the threshold for implementing the HAP emission reduction measures of the 2004 NESHAP (10 tpy of any single listed HAP or 25 tpy of any combination of HAPs), the owner or operator may meet the applicability threshold limit for implementing the final-form rulemaking RACT measures to control VOC emissions.

The costs estimated by the EPA to implement the recommended RACT measures are largely based on the 1980 NSPS VOC emission limitations and 2004 NESHAP HAP emission reduction

measures and costs. The owner and operator of an automobile and light-duty truck assembly coating facility that is already implementing the requirements of the 1980 NSPS or 2004 NESHAP and is potentially subject to the final-form rulemaking measures will likely not have additional costs to comply with the final-form rulemaking measures. The EPA therefore projected an estimated cost of \$0 to the owners and operators of automobile and light-duty truck assembly coating facilities potentially subject to regulations implementing requirements consistent with the recommended RACT measures of the 2008 ALDT Coatings CTG.

However, the owners and operators of none of the 13 permitted facilities identified by the Department as potentially subject to the final-form rulemaking have permits implementing the 1980 NSPS or 2004 NESHAP requirements. The Department also determined that 12 of the 13 facility owners and operators are likely surface coating bodies and body parts for heavier vehicles. Consistent with a recommendation in the EPA 2008 ALDT CTG and the 2008 MMPP CTG, the final-form rulemaking provides the owner or operator of a facility that coats a body or body part for a new heavier vehicle the option to elect to be regulated under this final-form rulemaking instead of final-form § 129.52d. The EPA wrote in the 2008 ALDT CTG and the 2008 MMPP CTG that an owner or operator making this election will achieve at least equivalent, and perhaps greater, control of VOC emissions.

The cost to the potentially affected population will be about the same whether the owners and operators choose to comply with this final-form rulemaking or final-form § 129.52d. The Board developed its estimate of costs for the potentially subject owners and operators implementing the final-form rulemaking measures by using the cost estimates for implementing the recommended RACT measures of the 2008 MMPP CTG. The Board likewise used the EPA's estimate from the 2008 MMPP CTG for the amount of VOC emission reductions implementation of the recommended control measures may achieve.

The EPA estimated that the annual cost to owners and operators to comply with regulations based on the 2008 MMPP CTG to be \$10,500 per facility and estimated the cost effectiveness for controlling the VOC emissions to be \$1,758 per ton of VOC emissions reduced. The EPA also estimated that implementing the RACT measures of the 2008 MMPP CTG will achieve VOC emission reductions of 35%. Both the 2008 ALDT CTG and the 2008 MMPP CTG also recommend work practices for reducing VOC emissions from coatings and cleaning materials. The EPA believes that the work practice recommendations in both the 2008 ALDT CTG and the 2008 MMPP CTG will result in a net cost savings for affected owners and operators for coating and cleaning materials. Implementing the required work practices for coating-related activities and cleaning materials will reduce the amounts of VOC emissions overall from coating operations by reducing the amounts of VOC-containing coating and cleaning materials that are lost to evaporation, spillage and waste, and reducing or eliminating associated VOC emissions, thereby reducing the costs of purchasing coating and cleaning materials for use in the operation as well as decreasing the amount of annual emissions fees that must be paid for VOC emissions.

The Board estimates that the maximum potential amount of actual annual VOC emission reductions that may be achieved by implementing the final-form rulemaking is approximately 111 tons, based on the 2013 reported VOC emissions of 319 tons by the ten potentially subject permitted facility owners and operators identified from the Department's databases that may be required to implement the VOC control measures of the final-form rulemaking (35% reduction x

319 tons VOC emissions = 111 tons of VOC emissions reduced), depending on the level of compliance already being achieved by these owners and operators. The estimated annual cost to the owners and operators of these ten potentially subject permitted facilities could be a total of \$195,138 (111 tons reduced x \$1,758 per ton of VOC emissions reduced = \$195,138). The cost per facility owner and operator could be approximately \$19,514 ($\$195,138 / 10 \text{ facilities} = \$19,514$), which is higher than the EPA's estimated cost per facility of \$10,500 for implementing the recommended RACT measures of the 2008 MMPP CTG. This difference in cost may be due in part to the Commonwealth-specific emission data used in the calculation.

The Board also calculated the cost effectiveness for the owners and operators of the ten potentially subject facilities in this Commonwealth using the EPA's cost of \$10,500 per facility. The estimated total maximum anticipated annual costs to the potentially subject ten facility owners and operators could be up to \$105,000 ($\$10,500 \times 10 \text{ facilities} = \$105,000$). The cost effectiveness for the reductions of 111 tons of VOC emissions could be as little as \$946 per ton of VOC emissions reduced ($\$105,000 / 111 \text{ tons of VOC emissions reduced} = \$946 \text{ per ton of VOC emissions reduced}$) on an annual basis. This is less than the cost effectiveness of \$1,758 per ton of VOC emissions reduced estimated by the EPA for implementing the recommended RACT measures of the 2008 Miscellaneous Metal and Plastic Parts Coatings CTG. Again, this difference may be due in part to the Commonwealth-specific emission data used in the calculation.

The Board estimates that the range of cost effectiveness to these ten facility owners and operators for implementing the final-form rulemaking is \$946/ton of VOC emissions reduced to \$1,758/ton of VOC emissions reduced on an annual basis. The range of cost to this group for implementing the final-form VOC emission control measures is estimated to be \$10,500 to \$19,514 per year per facility. The estimated total annual cost of implementing the final-form rulemaking for this group of potentially subject owners and operators ranges from \$105,000 to \$195,138. The Board expects that the annual costs to the regulated industry in this Commonwealth will be at the lower end of these ranges because low-VOC content coating materials are likely to be readily available at a cost that is not significantly greater than the high-VOC content coatings they replace as a result of the development of NSPS-compliant low-VOC content coating materials and NESHAP-compliant low-HAP content coating materials, since lower HAP content usually means lower VOC content. Therefore, the research and development of low-VOC content coating materials should already be complete and these expenses should not be a factor in the cost of complying with the final-form rulemaking VOC emission control measures.

Further, the Board expects that the annual financial impact to these owners and operators will be less than the estimated maximum costs due to flexibility in choosing compliance options. The final-form rulemaking provides for compliance through the use of complying coating materials and through work practice standards for coating-related activities and cleaning materials. Flexibility in compliance is provided for an owner or operator of a separate coating line at an automobile and light-duty truck assembly coating facility and an owner or operator of a facility that coats bodies or body parts for new heavier vehicles by the option to remain subject to the requirements of final-form § 129.52d or to elect to be subject to this final-form rulemaking. The final-form rulemaking provides flexibility to all of the potentially affected owners and operators by amending § 129.51(a) to extend its applicability to the owner and operator of a coating

operation subject to this final-form rulemaking. 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 of the final-form rulemaking, by submitting the alternative method to the Department for review and approval in an applicable plan approval or operating permit, or both.

The VOC emission limitations established by this final-form rulemaking will not require the submission of applications for amendments to existing operating permits. These requirements will 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 will 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 promulgation as final-form rulemaking, the requirements will apply to affected owners and operators irrespective of a modification to the Operating Permit.

New legal, accounting or consulting procedures are not required.

Compliance assistance plan

The Department plans to educate and assist the public and regulated community in understanding the final-form rulemaking requirements and how to comply with them. This will be accomplished through the Department's ongoing compliance assistance program. The Department will also work with the Pennsylvania 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 recordkeeping and reporting requirements for owners and operators of affected facilities at, above or below the threshold for control measures are minimal because the records required by the final-form rulemaking are consistent with what the industry currently tracks for inventory purposes or is required in current permits. The owner or operator of a facility subject to the final-form rulemaking is required to maintain records sufficient to demonstrate compliance with the applicable requirements. Records maintained for compliance demonstrations may include purchase, use, production and other records. The records must be maintained onsite for 2 years, unless a longer period is required by an order, plan approval or operating permit issued under Chapter 127 (relating to construction, modification, reactivation and operation of sources) and submitted to the Department in an acceptable format upon receipt of a written request from the Department.

H. 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 the final-form rulemaking may generate reductions of as much as 111 tons of VOC emissions per year from the ten potentially subject facilities identified by the Department in its databases that are likely to be subject at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls. The owners and operators of these ten facilities will be required to implement the VOC control measures of the final-form rulemaking 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 ground-level ozone will help ensure that the owners and operators of businesses, citizens and the environment of this Commonwealth experience the benefits of improved ground-level ozone air quality. Commonwealth residents will also potentially benefit from improved groundwater quality through reduced quantities of VOCs and HAPs from the use of low-VOC content and low-HAP content automobile and light-duty truck assembly coatings, heavier vehicle coatings and cleaning materials.

Although the final-form rulemaking is designed primarily to address ozone air quality, the reformulation of high-VOC content coating materials to low-VOC content coating materials or the substitution of low-VOC content coating materials for high-VOC content 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 solvents will benefit groundwater quality through reduced loading on water treatment plants and in reduced quantities of high-VOC content and high-HAP content solvents leaching into the ground, streams and rivers.

The final-form rulemaking provides for compliance through the use of complying coating materials and through work practice standards for coating-related activities and cleaning materials. Flexibility in compliance is provided for an owner or operator of a separate coating line at an automobile and light-duty truck assembly coating facility and an owner or operator of a facility that coats bodies or body parts for new heavier vehicles by the option to remain subject to the requirements of final-form § 129.52d or to elect to be subject to this final-form rulemaking. The final-form rulemaking provides flexibility to all of the potentially affected owners and operators by amending § 129.51(a) to extend its applicability to the owner and operator of a coating operation subject to this final-form rulemaking. Section 129.51(a) authorizes the owner or operator to achieve compliance through an alternative method, which will achieve VOC emission reductions equal to or greater than those of the final-form rulemaking, by submitting the alternative method to the Department for review and approval in an applicable plan approval or operating permit, or both.

The development and implementation of a written work practice standard for the use and application of cleaning materials, as well as implementation of work practices for coating-related activities, is expected to result in a net cost savings for coating and cleaning materials and related activities for affected owners and operators. Implementing the required work practices for coating-related activities and cleaning materials should reduce the amounts of VOC emissions overall from coating operations by reducing the amounts of VOC-containing coating and cleaning materials that are lost to evaporation, spillage and waste, and reducing or eliminating associated VOC emissions, thereby reducing the costs of purchasing coating and cleaning materials for use in the operation as well as decreasing the amount of annual emissions fees that must be paid for VOC emissions.

I. Sunset Review

This final-form rulemaking will be reviewed in accordance with the sunset review schedule published by the Department to determine whether it effectively fulfills the goals for which it was intended.

J. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on July 13, 2015, the Department submitted a copy of the notice of proposed rulemaking, published at 45 Pa. B. 4351 (August 8, 2015), to IRRC and to the Chairpersons of the House and Senate Environmental Resources and Energy Committees for review and comment.

Under section 5(c) of the Regulatory Review Act, IRRC and the House and Senate Committees were provided with copies of the comments received during the public comment period, as well as other documents when requested. In preparing the final-form rulemaking, the Department has considered all comments from IRRC, the House and Senate Committees and the public.

Under section 5.1(j.2) of the Regulatory Review Act (71 P. S. § 745.5a(j.2)), on _____, 2016, the final-form rulemaking was deemed approved by the House and Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on _____, 2016, and approved the final-form rulemaking.

K. Findings

The Board finds that:

(1) Public notice of proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 (P.L. 769, No. 240) (45 P. S. §§ 1201 and 1202) and regulations promulgated thereunder, 1 Pa. Code §§ 7.1 and 7.2.

(2) At least a 60-day public comment period was provided as required by law and all comments were considered.

(3) This final-form rulemaking does not enlarge the purpose of the proposed rulemaking published at 45 Pa. B. 4351 (August 8, 2015).

(4) These regulations are necessary and appropriate for administration and enforcement of the authorizing acts identified in Section C of this preamble.

(5) These regulations are reasonably necessary to attain and maintain the ozone NAAQS and to satisfy related CAA requirements.

L. *Order*

The Board, acting under the authorizing statutes, orders that:

(a) The regulations of the Department, 25 Pa. Code Chapter 129, are amended by amending § 129.51 and by adding § 129.52e to read as set forth in Annex A.

(b) The Chairperson of the Board shall submit this order and Annex A to the Office of General Counsel and the Office of Attorney General for review and approval as to legality and form, as required by law.

(c) The Chairperson of the Board shall submit this order and Annex A to IRRC and the Committees as required by the Regulatory Review Act.

(d) The Chairperson of the Board shall certify this order and Annex A and deposit them with the Legislative Reference Bureau as required by law.

(e) This final-form rulemaking will be submitted to the EPA as an amendment to the Pennsylvania SIP.

(f) This order shall take effect immediately upon publication in the *Pennsylvania Bulletin*.

PATRICK MCDONNELL,
Acting Chairperson

FINAL RULEMAKING
Annex A
TITLE 25. ENVIRONMENTAL PROTECTION
PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION
Subpart C. PROTECTION OF NATURAL RESOURCES
ARTICLE III. AIR RESOURCES
CHAPTER 129. STANDARDS FOR SOURCES
SOURCES OF VOCs

§ 129.51. General.

(a) *Equivalency.* Compliance with §§ 129.52, 129.52a, 129.52b, 129.52c, 129.52e, 129.54—129.69, 129.71—129.73 and 129.77 may be achieved by alternative methods if 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, 129.52e, 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, § 129.52e, § 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 new and printed in regular type to enhance readability.)

§ 129.52e. Control of VOC emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations.

(a) Applicability.

(1) This section applies to the owner and operator of an automobile and light-duty truck assembly coating operation that applies an automobile assembly coating or a light-duty truck assembly coating, or both, to one or more of the following:

(i) A new automobile body or a new light-duty truck body.

(ii) A body part for a new automobile or for a new light-duty truck.

(iii) Another part that is coated along with the new automobile body or body part or new light-duty truck body or body part.

(2) This section applies to the owner and operator of an automobile and light-duty truck assembly coating operation that operates a separate coating line at the facility on which a coating is applied to another part intended for use in a new automobile or new light-duty truck or an aftermarket repair or replacement part for an automobile or light-duty truck if the owner or operator elects to comply with this section instead of § 129.52d (relating to control of VOC emissions from miscellaneous metal parts surface coating processes, miscellaneous plastic parts surface coating processes and pleasure craft surface coatings). The election occurs when the owner or operator notifies the Department by submitting a written statement to the appropriate Department regional office Air Quality Program Manager that specifies the intent to comply with this section instead of § 129.52d.

(3) This section applies to the owner and operator of a facility that coats a body or body part for a new heavier vehicle if the owner or operator elects to comply with this section instead of § 129.52d. The election occurs when the owner or operator notifies the Department by submitting a written statement to the appropriate Department regional office Air Quality Program Manager that specifies the intent to comply with this section instead of § 129.52d.

(4) This section applies to the owner and operator of a facility that performs a coating operation subject to this section on a contractual basis.

(5) This section does not apply to the use or application of an automobile and light-duty truck assembly coating by an owner or operator at a plastic or composites molding facility.

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

Adhesive—A chemical substance that is applied for the purpose of bonding two surfaces together by other than mechanical means.

Assembly coating—The term includes the primary and additional surface coatings applied during the vehicle assembly process.

(i) Primary coatings include the following:

- (A) Electrodeposition primer.
- (B) Primer-surfacer (including anti-chip coatings).
- (C) Topcoat (including basecoat and clearcoat).
- (D) Final repair.

(ii) Additional coatings include the following:

- (A) Glass bonding primer.
- (B) Adhesives.
- (C) Cavity wax.
- (D) Sealer.
- (E) Deadener.
- (F) Gasket/gasket sealing material.
- (G) Underbody coating.
- (H) Trunk interior coating.
- (I) Bedliner.
- (J) Weatherstrip adhesive.
- (K) Lubricating waxes and compounds.

(iii) The term does not include aerosol coatings.

Automobile—

- (i) A motor vehicle designed to carry up to eight passengers.

(ii) The term does not include vans, sport utility vehicles and motor vehicles designed primarily to transport light loads of property.

Automobile and light-duty truck adhesive—An adhesive, including glass bonding adhesive, used at an automobile and light-duty truck assembly coating operation, applied for the purpose of bonding two vehicle surfaces together without regard to the substrates involved.

Automobile and light-duty truck assembly coating operation—An operation that applies an assembly coating to a new automobile body or a new light-duty truck body, or both, or a body part for a new automobile or for a new light-duty truck, or both, or another part that is coated along with the new automobile body or body part or new light-duty truck body or body part. The operation consists of one or more of the following processes:

- (i) Surface preparing.
- (ii) Priming, including application of either of the following:
 - (A) Electrodeposition primer.
 - (B) Primer-surfacer.
- (iii) Topcoating.
- (iv) Final repairing.
- (v) Cleaning activities related to the vehicle coating operations.

Automobile and light-duty truck bedliner—A multicomponent coating, used at an automobile and light-duty truck assembly coating operation, applied to a cargo bed after the application of topcoat and outside of the topcoat operation to provide additional durability and chip resistance.

Automobile and light-duty truck cavity wax—A coating, used at an automobile and light-duty truck assembly coating operation, applied into the cavities of the vehicle primarily for the purpose of enhancing corrosion protection.

Automobile and light-duty truck deadener—A coating, used at an automobile and light-duty truck assembly coating operation, applied to selected vehicle surfaces primarily for the purpose of reducing the sound of road noise in the passenger compartment.

Automobile and light-duty truck gasket/gasket sealing material—

- (i) A fluid, used at an automobile and light-duty truck assembly coating operation, applied to coat a gasket or replace and perform the same function as a gasket.
- (ii) The term includes room temperature vulcanization seal material.

Automobile and light-duty truck glass bonding primer—

(i) A primer, used at an automobile and light-duty truck assembly coating operation, applied to windshield or other glass, or to body openings, to prepare the glass or body opening for the application of glass bonding adhesives or the installation of adhesive bonded glass.

(ii) The term includes glass bonding and cleaning primers that perform both functions (cleaning and priming of the windshield or other glass, or body openings) prior to the application of adhesive or the installation of adhesive bonded glass.

*Automobile and light-duty truck lubricating wax/compound—*A protective lubricating material, used at an automobile and light-duty truck assembly coating operation, applied to vehicle hubs and hinges.

Automobile and light-duty truck sealer—

(i) A high viscosity material, used at an automobile and light-duty truck assembly coating operation, generally, but not always, applied in the paint shop after the body has received an EDP coating and before the application of subsequent coatings (for example, primer-surfacer). The primary purpose of the material is to fill body joints completely so that there is no intrusion of water, gases or corrosive materials into the passenger area of the body compartment.

(ii) The term is also known as sealant, sealant primer or caulk.

*Automobile and light-duty truck trunk interior coating—*A coating, used at an automobile and light-duty truck assembly coating operation outside of the primer-surfacer and topcoat operations, applied to the trunk interior to provide chip protection.

*Automobile and light-duty truck underbody coating—*A coating, used at an automobile and light-duty truck assembly coating operation, applied to the undercarriage or firewall to prevent corrosion or provide chip protection, or both.

*Automobile and light-duty truck weatherstrip adhesive—*An adhesive, used at an automobile and light-duty truck assembly coating operation, applied to weatherstripping materials for the purpose of bonding the weatherstrip material to the surface of the vehicle.

*Automobile Topcoat Protocol—*A guidance document by the United States Environmental Protection Agency for determining the daily volatile organic compound emission rate of automobile and light-duty truck primer-surfacer and topcoat operations (EPA-453/R-08-002, September 2008, or revisions).

Body part—

(i) An exterior part of a motor vehicle including the hood, fender, door, roof, quarter panel, deck lid, tail gate and cargo bed.

- (ii) The term does not include a bumper, fascia or cladding.

EDP—Electrodeposition primer—

(i) A process of applying a protective, corrosion-resistant waterborne primer on exterior and interior surfaces that provides thorough coverage of recessed areas. It is a dip coating method that uses an electrical field to apply or deposit the conductive coating onto the part. The object being painted acts as an electrode that is oppositely charged from the particles of paint in the dip tank.

- (ii) The term is also known as E-Coat, Uni-Prime and ELPO primer.

*Final repair—*The operations performed and coating or coatings applied to completely assembled motor vehicles or to parts that are not yet on a completely assembled vehicle to correct damage or imperfections in the coating. The curing of the coatings applied in these operations is accomplished at a lower temperature than that used for curing primer-surfacer and topcoat. This lower temperature cure avoids the need to send parts that are not yet on a completely assembled vehicle through the same type of curing process used for primer-surfacer and topcoat and is necessary to protect heat sensitive components on completely assembled vehicles.

*Heavier vehicle—*A self-propelled vehicle designed for transporting persons or property on a street or highway that has a gross vehicle weight rating over 8,500 pounds.

In-line repair—

(i) The operation performed and coating or coatings applied to correct damage or imperfections in the topcoat on parts that are not yet on a completely assembled vehicle. The curing of the coatings applied in these operations is accomplished at essentially the same temperature as that used for curing the previously applied topcoat. This operation is considered part of the topcoat operation.

- (ii) The term is also known as high bake repair or high bake reprocess.

*Light-duty truck—*A van, sport utility vehicle or motor vehicle designed primarily to transport light loads of property with a gross vehicle weight rating of 8,500 pounds or less.

Primer-surfacer—

(i) An intermediate protective coating applied over the EDP and under the topcoat. The coating provides adhesion, protection and appearance properties to the total finish.

(ii) The coating operation may include one or more other coatings, including antichip, lower-body antichip, chip-resistant edge primer, spot primer, blackout, deadener, interior color, basecoat replacement coating or other coating, that is applied in the same spray booth.

(iii) The term is also known as guide coat or surfacer.

Solids turnover ratio (R_T)—The ratio of total volume of coating solids that is added to the EDP system in a calendar month divided by the total volume design capacity of the EDP system.

Topcoat—

(i) The final coating system applied to provide the final color or a protective finish, or both. The coating may be a monocoat color or basecoat/clearcoat system.

(ii) The coating operation may include one or more other coatings including blackout, interior color or other coating that is applied in the same spray booth.

(iii) The term includes in-line repair and two-tone.

(c) *Existing RACT permit.* The requirements of this section supersede the requirements of a RACT permit issued under §§ 129.91—129.95 (relating to stationary sources of NO_x and VOCs) to the owner or operator of a source subject to this section prior to January 1, ~~2016~~ 2017, except to the extent the RACT permit contains more stringent requirements.

(d) *VOC content limits.*

(1) Beginning January 1, ~~2016~~ 2017, the VOC content limits specified in Tables I and II apply to an owner and operator of a facility that has total actual VOC emissions equal to or greater than 15 pounds (6.8 kilograms) per day, before consideration of controls, from all operations at the facility that apply an assembly coating subject to this section, including related cleaning activities.

(2) Beginning January 1, ~~2016~~ 2017, the VOC content limits specified in Tables I and II do not apply to the following:

(i) An owner and operator of a facility that has total actual VOC emissions below 15 pounds (6.8 kilograms) per day, before consideration of controls, from all operations at the facility that apply an assembly coating subject to this section, including related cleaning activities.

(ii) An assembly coating supplied in a container with a net volume of 16 ounces or less or a net weight of 1 pound or less.

(e) *Work practice requirements.* Beginning January 1, ~~2016~~ 2017, an owner and operator subject to subsection (d)(1) shall comply with the following work practices for:

(1) Coating-related activities. An owner and operator shall:

(i) Store all VOC-containing coatings, thinners and coating-related waste materials in closed containers.

(ii) Ensure that mixing and storage containers used for VOC-containing coatings, thinners and coating-related waste materials are kept closed at all times except when depositing or removing these materials.

(iii) Minimize spills of VOC-containing coatings, thinners and coating-related waste materials and clean up spills immediately.

(iv) Convey VOC-containing coatings, thinners and coating-related waste materials from one location to another in closed containers or pipes.

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

(2) Cleaning materials. An owner and operator shall develop and implement a written work practice plan to minimize VOC emissions from cleaning and purging of equipment associated with all coating operations for which emission limits are required. The written plan must specify practices and procedures to ensure that VOC emissions from the following operations are minimized:

(i) Vehicle body wiping.

(ii) Coating line purging.

(iii) Flushing of coating systems.

(iv) Cleaning of spray booth grates.

(v) Cleaning of spray booth walls.

(vi) Cleaning of spray booth equipment.

(vii) Cleaning external spray booth areas.

(viii) Other housekeeping measures, including:

(A) Storing all VOC-containing cleaning materials and used shop towels in closed containers.

(B) Ensuring that mixing and storage containers used for VOC-containing cleaning materials are kept closed at all times except when depositing or removing these materials.

(C) Minimizing spills of VOC-containing cleaning materials and cleaning up spills immediately.

(D) Conveying VOC-containing cleaning materials from one location to another in closed containers or pipes.

(E) Minimizing VOC emissions from cleaning of storage, mixing and conveying equipment.

(f) *Compliance monitoring and recordkeeping.* An owner or operator subject to this section shall maintain records sufficient to demonstrate compliance with this section.

(1) The owner or operator shall maintain daily records of the following parameters for each coating, thinner, component or cleaning material as supplied:

(i) The name and identification number.

(ii) The volume used.

(iii) The mix ratio.

(iv) The density or specific gravity.

(v) The weight percent of total volatiles, water, solids and exempt solvents.

(vi) The volume percent of solids for each EDP coating.

(vii) The VOC content.

(2) The owner or operator shall maintain a daily record of the VOC content of each as applied coating or cleaning material.

(3) The owner or operator shall:

(i) Maintain the records 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 or order issued by the Department.

(ii) Submit the records to the Department in an acceptable format upon receipt of a written request from the Department.

(4) The owner or operator subject to subsection (e) shall maintain the written work practice plan specified in subsection (e)(2) onsite and make it available to the Department upon request.

(g) *Measurement, calculation, sampling and testing methodologies.* The following measurement, calculation, sampling and testing methodologies shall be used to determine the amount of VOC emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations, as appropriate:

(1) Measurements of the volatile fraction of coatings shall be performed according to the following, as applicable:

(i) EPA Reference Method 24.

(ii) Appendix A of 40 CFR Part 63, Subpart PPPP (relating to National emission standards for hazardous air pollutants for surface coating of plastic parts and products), regarding determination of weight volatile matter content and weight solids content of reactive adhesives.

(iii) Manufacturer's formulation data.

(2) Calculations of the VOC emissions and rates shall be performed according to the following, as applicable:

(i) Automobile Topcoat Protocol—*Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations*, EPA-453/R-08-002, including updates and revisions. This protocol applies to the owner and operator of a facility that coats a body or body part for a new heavier vehicle that elects under subsection (a)(3) to comply with this section instead of § 129.52d.

(ii) *A Guideline for Surface Coating Calculations*, EPA-340/1-86-016, including updates and revisions.

(iii) *Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and Other Coatings*, EPA-450 3-84-019, including updates and revisions.

(3) Sampling and testing shall be performed according to the procedures and test methods specified in Chapter 139 (relating to sampling and testing).

(4) Another method or procedure that has been approved in writing by the Department and the EPA.

Table I. VOC Content Limits for Primary Assembly Coatings

Assembly Coating	VOC Emission Limit		
	When $R_T^1 < 0.040$	When $0.040 \leq R_T^1 < 0.160$	When $R_T^1 \geq 0.160$
EDP operations (including application area, spray and rinse stations and curing oven)			
No VOC emission limit.	$0.084 \times 350^{0.160-R_T}$ kg VOC/liter coating solids applied or	0.084 kg VOC/liter coating solids applied or	
	$0.084 \times 350^{0.160-R_T} \times 8.34$ lb VOC/gal coating solids applied	0.7 lb VOC/gal coating solids applied	
Primer-surfacer operations (including application area, flash-off area, and oven)	1.44 kg VOC/liter of deposited solids or 12.0 lbs VOC/gal deposited solids	on a daily weighted average basis as determined by following the procedures in the revised Automobile Topcoat Protocol.	
Topcoat operations (including application area, flash-off area, and oven)	1.44 kg VOC/liter of deposited solids or 12.0 lbs VOC/gal deposited solids	on a daily weighted average basis as determined by following the procedures in the revised Automobile Topcoat Protocol.	
Final repair operations	0.58 kg VOC/liter less water and less exempt solvents or 4.8 lbs VOC/gallon of coating less water and less exempt solvents	on a daily weighted average basis or as an occurrence weighted average.	
Combined primer-surfacer and topcoat operations	1.44 kg VOC/liter of deposited solids or 12.0 lbs VOC/gal deposited solids	on a daily weighted average basis as determined by following the procedures in the revised Automobile Topcoat Protocol.	
	¹ R _T is the solids turnover ratio. "Solids turnover ratio" is defined in subsection (b).		

**Table II. VOC Content Limits for Additional Assembly Coatings
(grams of VOC per liter of coating excluding water and exempt compounds) as Applied**

Material²	g VOC/liter coating less water and exempt compounds	lb VOC/gal coating less water and exempt compounds
Automobile and Light-duty Truck Glass Bonding Primer	900	7.51
Automobile and Light-duty Truck Adhesive	250	2.09
Automobile and Light-duty Truck Cavity Wax	650	5.4
Automobile and Light-duty Truck Sealer	650	5.4
Automobile and Light-duty Truck Deadener	650	5.4
Automobile and Light-duty Truck Gasket/Gasket Sealing Material	200	1.7
Automobile and Light-duty Truck Underbody Coating	650	5.4
Automobile and Light-duty Truck Trunk Interior Coating	650	5.4
Automobile and Light-duty Truck Bedliner	200	1.7
Automobile and Light-duty Truck Lubricating Wax/Compound	700	5.8
Automobile and Light-duty Truck Weatherstrip Adhesive	750	6.26

² The owner and operator of a facility that coats a body or body part, or both, for a new heavier vehicle that elects under subsection (a)(3) to comply with this section instead of § 129.52d shall comply with these limits for equivalent coating materials.



pennsylvania

DEPARTMENT OF ENVIRONMENTAL
PROTECTION

Bureau of Air Quality

**CONTROL OF
VOLATILE ORGANIC COMPOUND EMISSIONS
FROM
AUTOMOBILE AND LIGHT-DUTY TRUCK ASSEMBLY
COATING OPERATIONS AND HEAVIER VEHICLE
COATING OPERATIONS**

25 Pa. Code Chapter 129

45 Pa. B. 4351 (August 8, 2015)

Environmental Quality Board Regulation #7-490

(Independent Regulatory Review Commission #3110)

Comment and Response Document

Control of Volatile Organic Compound Emissions from Automobile and Light-Duty Truck Assembly Coating Operations and Heavier Vehicle Coating Operations

On August 8, 2015, the Environmental Quality Board (Board, EQB) published a *Pennsylvania Bulletin* notice of public hearings and written comment period on the proposed amendments to Chapter 129 (relating to standards for sources) for the control of volatile organic compound (VOC) emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations (45 *Pa.B.* 4351). The proposed rulemaking would primarily add § 129.52e (relating to control of VOC emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations) to adopt VOC emission limitations and other requirements consistent with the reasonably available control technology (RACT) recommendations of the United States Environmental Protection Agency (EPA) 2008 Automobile and Light-Duty Truck Assembly Coatings Control Techniques Guidelines (CTG) for these sources in this Commonwealth. See *Consumer and Commercial Products, Group IV: Control Techniques Guidelines in Lieu of Regulations for Miscellaneous Metal Products Coatings, Plastic Parts Coatings, Auto and Light-Duty Truck Assembly Coatings, Fiberglass Boat Manufacturing Materials, and Miscellaneous Industrial Adhesives*, 73 FR 58481, 58483 (October 7, 2008). The EPA's CTG document, *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA 453/R-08-006, Office of Air Quality Planning and Standards, EPA, September 2008, is available on the EPA's website at: www.epa.gov/airquality/ozonepollution/SIPToolkit/ctgs.html.

The comment period opened on August 8, 2015, and closed on October 13, 2015. Three public hearings were held on the proposed rulemaking as follows:

September 8, 2015 1:00 pm	Department of Environmental Protection Southeast Regional Office Schuylkill Conference Room 2 East Main Street Norristown, PA 19401
September 9, 2015 1:00 pm	Department of Environmental Protection Rachel Carson State Office Building Conference Room 105 400 Market Street Harrisburg, PA 17105
September 10, 2015 1:00 pm	Department of Environmental Protection Southwest Region Office Island Conference Room 400 Waterfront Drive Pittsburgh, PA 15222

This document summarizes the written comments received from the public during the public comment period. No written comments were received from the public for this proposed rulemaking. The Independent Regulatory Review Commission (IRRC) submitted written comments following the public comment period, which are summarized in this document. No written comments were received from the Senate or House Environmental Committees. No testimony was received during the public hearings. Each comment is listed with the identifying commentator number for each commentator that made the comment. A list of the commentators, including name and affiliation, can be found below.

The final-form regulation will be submitted to the EPA as a revision to the State Implementation Plan (SIP) upon final-form publication in the *Pennsylvania Bulletin*.

Copies of all comments received are posted on the IRRC web site at <http://www.irrc.state.pa.us>. Search by Regulation # 7-490 or IRRC # 3110.

Table of Commentators to the Environmental Quality Board

ID	Name/Address	Submitted One-Page Summary for distribution to EQB	Provided Testimony	Requested Copy of Final Rulemaking following EQB Action
1	Independent Regulatory Review Commission (IRRC) 333 Market Street, 14 th Floor Harrisburg, PA 17101	No	No	No

COMMENTS AND RESPONSES.

1. Comment: IRRC noted that the proposed rulemaking would establish a compliance date of January 1, 2016, and commented on the Board’s request for comments regarding a compliance date of May 1, 2016, or later. IRRC recommended that the EQB establish a compliance date that allows for the proper development of a final-form regulation and full compliance by the regulated community. (1)

Response: The Department agrees. DEP has changed the compliance date in the final rulemaking to January 1, 2017, as required under the EPA’s final rule pertaining to the *Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements* (80 FR 12279, March 6, 2015). The EPA stated that the RACT measures for the 2008 ozone National Ambient Air Quality Standard (NAAQS) must be implemented “as expeditiously as practicable, but no later than January 1 of the 5th year after the effective date of a nonattainment designation.” The nonattainment designations across the country were effective for the 2008 ozone NAAQS on July 20, 2012 (77 FR 30088, 30143, May 21, 2012). Consequently, RACT measures for the 2008 8-hour ozone standard must be implemented by January 1, 2017.

2. Comment: IRRC noted that the owner or operator of a separate coating line at an automobile and light-duty truck assembly coating facility, and the owner or operator of a facility that coats a body or body part for a new heavier vehicle, would have the option to elect to be regulated under this proposed rulemaking instead of the concurrently proposed rulemaking for the control of VOC emissions from miscellaneous metal parts surface coating processes, miscellaneous plastic parts surface coating processes and pleasure craft surface coatings (see EQB #7-491 or IRRC #3109). IRRC asked the Board to ensure that the two rulemakings are adopted on the same date. (1)

Response: The Department agrees. The Department intends to process and publish the two final rulemakings concurrently.

Table 1: Summary of the Final Rulemaking Schedule

IRRC #	Final Rulemaking Title	Effective Date	Final Rulemaking Title	Effective Date
1	Control of VOC Emissions from Miscellaneous Metal Parts Surface Coating Processes, Miscellaneous Plastic Parts Surface Coating Processes and Pleasure Craft Surface Coatings	2010	Control of VOC Emissions from Automobile and Light-Duty Truck Assembly Coating Facilities	2010

Small Business Compliance Advisory Committee

to the Pennsylvania Department of Environmental Protection

PO Box 8468

Harrisburg, PA 17105-8468

April 27, 2016

Honorable John Quigley
Secretary
Department of Environmental Protection
Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, PA 17105-2063

Re: Final Rulemaking for Control of VOC Emissions from Automobile and Light-duty Truck Assembly Coating Operations and Heavier Vehicle Coating Operations
(25 *Pa. Code*, Chapter 129)

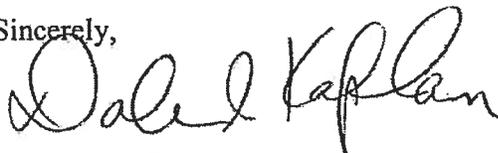
Dear Secretary Quigley:

On April 27, 2016, the Small Business Compliance Advisory Committee (Committee) discussed the final rulemaking draft Annex A to amend 25 *Pa. Code*, Chapter 129 (relating to standards for sources). The final rulemaking draft Annex A adds provisions to Chapter 129 at § 129.52e to further reduce volatile organic compound (VOC) emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations. The proposed rulemaking was published in the *Pennsylvania Bulletin* on August 8, 2015 (45 *Pa. B.* 4351).

The amendments are being added to meet the Clean Air Act “reasonably available control technology” (RACT) requirements for ozone nonattainment areas. The final-form VOC emission rates and content limits and the work practice requirements are consistent with the recommendations of the United States Environmental Protection Agency set forth as RACT in the 2008 Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings.

The Committee voted unanimously to concur with the Department’s recommendation to present the final rulemaking amendments to the Environmental Quality Board for consideration for adoption and publication as final rulemaking.

Sincerely,



Dale I. Kaplan
Chair

cc: Joyce Epps, Director, PA DEP BAQ
Susan Hoyle, PA DEP BAQ
Susan Foster, PA DEP BAQ
Nancy Herb, PA DEP BAQ
Jesse Walker, PA DEP BRC



Citizens Advisory Council

to the Department of Environmental Protection

P.O. Box 8459 § Rachel Carson State Office Building

Harrisburg, PA 17105-8459 • 717-787-4527 • Fax 717-787-2878

March 18, 2016

Ms. Joyce E. Epps
Director
Bureau of Air Quality
P.O. Box 8468
Harrisburg, PA 17105-8468

Dear Ms. Epps:

Pursuant to the requirements of Section 7.6 of the Air Pollution Control Act, on March 2, 2016, staff from the Bureau of Air Quality briefed the Citizens Advisory Council (Council) Policy and Regulatory Oversight Committee (Committee) on the draft final rulemaking for Control of Volatile Organic Compound (VOC) Emissions from Automobile and Light-Duty Truck Assembly Coating Operations (ALDT) and Heavier Vehicle Coating Operations. The final rulemaking amends 25 Pa. Code Chapter 129 to establish VOC emission limitations and other requirements consistent with the recommendations of the U.S. Environmental Protection Agency's 2008 Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings for what constitutes reasonably available control technology for the control of VOC emissions from ALDT assembly coatings in ozone nonattainment areas and the Ozone Transport Region.

On the recommendation of the Committee, Council voted at their March 15, 2016, meeting to concur with advancing the above-referenced draft final regulations to the Environmental Quality Board for action.

Council appreciates the Bureau's cooperation in providing detailed briefings on air regulations. If you have any questions regarding Council's action on the above-referenced regulations, please contact me at 717.705.2693 or by email at khethering@pa.gov.

Sincerely,

Katherine Hetherington Cunfer
Acting Executive Director
Citizens Advisory Council

cc: Kirit Dalal
John Krueger
Deborah Wehr
Susan Hoyle
Laura Edinger



Air Quality Technical Advisory Committee

to the Pennsylvania Department of Environmental Protection

PO Box 8468

Harrisburg, PA 17105-8468

February 11, 2016

Honorable John Quigley
Secretary
Department of Environmental Protection
Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, PA 17105-2063

Re: Final Rulemaking for Control of VOC Emissions from Automobile and Light-duty Truck Assembly Coating Operations (25 Pa. Code Chapter 129)

Dear Secretary Quigley:

On February 11, 2016, the Air Quality Technical Advisory Committee (Committee) discussed the final rulemaking draft Annex A to amend 25 Pa. Code Chapter 129 (relating to standards for sources). The final rulemaking draft Annex A adds provisions to Chapter 129 at § 129.52e to implement the recommendations of the United States Environmental Protection Agency (EPA) Control Techniques Guidelines for control of emissions of volatile organic compounds (VOC) from automobile and light-duty truck assembly coatings. The proposed rulemaking was published in the *Pennsylvania Bulletin* on August 8, 2015 (45 Pa. B. 4351).

The amendments are being added to meet the requirements of the Clean Air Act to implement "reasonably available control technology" (RACT) measures for ozone nonattainment areas. The final-form VOC emission and content limits for coatings and the work practice requirements for coating-related activities and cleaning materials are consistent with the recommendations of the EPA set forth as RACT in the Control Techniques Guideline document issued for this source category.

The Committee voted 16-0-1 (yes; no; abstain) to concur with the Department's recommendation to present the final rulemaking amendments to the Environmental Quality Board for consideration for adoption and publication as final rulemaking.

Sincerely,



Patrick K. O'Neill Esq.
Chair

cc: AQTAC Members

Joyce Epps, Director, PA DEP BAQ

Susan Hoyle, PA DEP BAQ

Jesse Walker, PA DEP BRC

February 11, 2016

John Quigley
Director
Department of Environmental Protection
600 North 3rd Street
Harrisburg, PA 17102-1200

Re: [Illegible subject line]

[Illegible body text]

[Illegible body text]

[Illegible body text]

[Illegible signature and name]

July 15, 2016

David Sumner
Executive Director
Independent Regulatory Review Commission
333 Market Street, 14th Floor
Harrisburg, PA 17120

Re: Final Rulemaking: Remining Requirements (#7-496)
Final Rulemaking: Revised Total Coliform Rule (#7-494)
Final Rulemaking: Control of VOC Emissions from Miscellaneous Metal Parts Surface Coating Processes, Miscellaneous Plastic Parts Surface Coating Processes and Pleasure Craft Surface Coatings (#7-491)
Final Rulemaking: Control of VOC Emissions from Automobile and Light-Duty Truck Assembly Coating Operations and Heavier Vehicle Coating Operations (#7-490)

Dear Mr. Sumner:

Pursuant to Section 5(a) of the Regulatory Review Act, please find enclosed copies of four final-form rulemakings for review and comment by the Independent Regulatory Review Commission (IRRC). The Environmental Quality Board (EQB) adopted final-form rulemaking #7-496 at its May 17, 2016 meeting and adopted final-form rulemakings #7-490, #7-491, and #7-494 at its June 21, 2016 meeting.

The **Remining Requirements (#7-496)** final-form rulemaking updates the coal mining remining requirements for pre-existing discharges to incorporate the federal effluent limit guidelines. The regulations are authorized under the Surface Mining Conservation and Reclamation Act, The Clean Streams Law, and the Administrative Code of 1929. The existing Pennsylvania remining program is implemented through regulations at 25 *Pa. Code* Chapter 87, Subchapter F; Chapter 88, Subchapter G; and Chapter 90, Subchapter F, as well as through technical guidance documents and individual permits. The rulemaking allows for liability protection for remining operations conducted on abandoned mine lands with existing pollutional discharges by enabling the Department of Environmental Protection (DEP or Department) to determine the pollution baseline at a site and set effluent limitations accordingly.

Currently, DEP determines the pollution baseline using a single statistical method. Effluent limitations are determined on a case-by-case basis using best professional judgment. The federal requirements differ from the Pennsylvania requirements by providing the option of employing an alternative statistical method for determining the pollution baseline, depending on which method would more accurately characterize baseline levels due to site-specific factors.

This rulemaking is subject to approval by the Office of Surface Mining Reclamation and Enforcement. Amendments included in this final-form rule are therefore consistent with the federal regulations. The final-form rulemaking incorporates into the Pennsylvania regulations both statistical methods provided in the federal regulations, eliminating the need to implement the methods through individual permits and providing flexibility regarding the choice of statistical method based on site-specific factors. The final-form rulemaking further provides for remining at sites in which it is infeasible to establish pollution baselines due to the size or location of the mine discharge. These provisions have the potential to open up areas to remining where it was not previously possible. Remining typically results in substantial improvements in water quality in addition to the benefits of land reclamation.

There are approximately 500 licensed surface coal mining operators in Pennsylvania, most of which are small businesses, which will be subject to this regulation. The primary compliance costs are related to water sampling and analysis and implementation of best management practices for the abatement of abandoned mine drainage. However, these costs are part of the planning process for mine operators when they decide if an area is economically mineable. Overall, compliance costs for mine operators are reduced, as this final-form rulemaking provides for protection from long-term treatment liability. Compliance assistance for this rulemaking will be provided through DEP's routine interaction with trade groups and individual applicants.

The EQB approved the proposed rulemaking at its May 20, 2015 meeting. The proposed rulemaking was published in the *Pennsylvania Bulletin* on October 3, 2015, opening a 30-day public comment period. Comments were received from one public commentator and from the Independent Regulatory Review Commission (IRRC). The public commentator noted the omission of a subscript in one of the calculations. IRRC provided comments requesting amendments to the regulatory analysis form as well as comments requesting clarifications to the rulemaking language. The final-form rulemaking was revised to address these comments.

The **Revised Total Coliform Rule (#7-494)** final-form rulemaking amends 25 *Pa. Code*, Chapter 109 to incorporate federal requirements needed to obtain primary enforcement authority (primacy) for the Revised Total Coliform Rule (RTCR). The RTCR establishes a maximum contaminant level for *E. coli* and uses *E. coli* and total coliforms to initiate a "find and fix" approach to address fecal contamination that could enter into the distribution system. It requires public water systems (PWSs) to perform assessments to identify sanitary defects and subsequently take action to correct them. This final-form rulemaking will affect all 8,868 PWSs serving approximately 12.75 million Pennsylvanians in addition to most businesses throughout the Commonwealth.

The Pennsylvania RTCR regulations are more stringent than Federal regulations in only two ways. To be consistent with existing public notification requirements, DEP is requiring one-hour notification for several circumstances where the federal rule requires notification within 24 hours. Also, if DEP determines an assessment to be incomplete, the PWS must consult with DEP within 14 days.

The proposed rulemaking was included in a two-part proposal which was submitted to the EQB for consideration at its meeting on April 21, 2015. One part contained proposed regulations

necessary to assume primacy with respect to the Federal Revised Total Coliform Rule (Federal RTCR) and the other part of the proposal included amendments to various other portions of Chapter 109. In response to a motion made at that meeting, the Board voted to approve the portion of the proposed rulemaking regarding the Federal RTCR but to split the other proposed amendments into a separate rulemaking to provide an opportunity for further consideration by the Technical Assistance Center for Small Drinking Water Systems Advisory Board (TAC) and other interested parties. This final-form rulemaking exclusively concerns the RTCR.

After EQB adoption and requested modifications were completed, the proposal was published on October 3, 2015, opening a 60-day public comment period. Public hearings were held during the public comment period on November 3, 2015 and November 5, 2015. Thirteen public commentators and the Independent Regulatory Review Commission provided comments on the proposed rulemaking. TAC was presented with the draft final Annex on March 16, 2016. As a result of TAC meetings and public comments received both at the public hearings and in written form, several revisions were made to the rulemaking.

The majority of public comments centered on additional flexibility needed for water systems when collecting repeat samples following a routine sample testing positive for total coliform. The Federal regulation requires PWSs to collect repeat samples following a routine sample testing positive for total coliform at sites within five taps upstream and downstream of the routine site or to collect the repeat samples at fixed alternative sites or in accordance with a standard operating procedure (SOP) that the system believes to be representative of a pathway for contamination. In the preamble to the proposed regulation, DEP asked how a PWS would demonstrate that an alternative repeat monitoring location represents the pathway for contamination that led to the original coliform-positive sample in the distribution system. Proposed section 109.301(3)(ii)(B) relating to check samples was amended in response to public comments. The added language provides clarification that a PWS is not required to identify or collect a check sample at only one repeat monitoring location on either side of a routine location that tests positive for total coliform. Instead, a PWS may identify all connections within five connections upstream and five connections downstream as potentially available repeat monitoring locations and then, when needed, select from those identified sites the available taps for sampling. Further, the added language allows PWSs to obtain DEP approval of sites identified in the sample siting plan that are located outside of five connections. This language incorporates the “alternative fixed locations” allowed under the Federal rule and offers greater flexibility to PWSs.

However, language allowing a standard operating procedure has not been added. Public comments did not provide justification that an SOP could identify sites that represent a pathway for contamination. In addition, DEP believes that repeat sample sites must be properly documented in the system’s sample siting plan in order to ensure appropriate monitoring by the system and to allow for proper oversight by DEP. Therefore, the final rule does not allow systems to employ an SOP for identifying repeat monitoring locations.

DEP has a compliance assistance plan in place for implementation of this final-form rulemaking. The Commonwealth's Pennsylvania Infrastructure Investment Authority Program offers financial assistance to eligible PWSs. Also, DEP’s Safe Drinking Water Program established a network of

regional and central office training staff that is responsive to identifiable training needs. The target audience in need of training may be either program staff or the regulated community. In addition to this network of training staff, DEP's Bureau of Safe Drinking Water has staff dedicated to providing both training and outreach support services to PWS operators.

The Control of VOC Emissions from Miscellaneous Metal Parts Surface Coating Processes, Miscellaneous Plastic Parts Surface Coating Processes, and Pleasure Craft Surface Coatings (#7-491) final-form rulemaking amends *25 Pa. Code* Chapter 129 to add § 129.52d (henceforth referred to as MMPP) to limit volatile organic compound (VOC) emissions from miscellaneous metal parts surface coating processes, miscellaneous plastic parts surface coating processes and pleasure craft surface coatings as well as automotive/transportation and business machine plastic parts surface coatings and motor vehicle materials surface coatings. Final-form MMPP establishes VOC emission limits and other requirements consistent with the reasonably available control technology (RACT) recommendations issued by the EPA in the 2008 Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings (2008 MMPP CTG).

DEP identified 160 manufacturing facilities whose owners and operators may be subject to the final-form rulemaking. The requirements of final-form MMPP apply to the owner and operator of the following: a facility that manufactures metal or plastic parts or products, including automotive and transportation plastic parts, business machine plastic parts, pleasure craft (recreational boats), or bodies or body parts for new heavier vehicles, on which subject surface coatings are applied; a separate coating line at an automobile and light-duty truck assembly coating facility, on which subject surface coatings are applied to other parts intended for use in new automobiles or new light-duty trucks or to aftermarket repair or replacement parts for automobiles or light-duty trucks; or a facility that applies subject coatings to the surfaces of metal or plastic parts or products on a contractual basis.

The owner or operator of a facility that emits 2.7 tons or more of actual VOC emissions per 12-month rolling period threshold, including VOC emissions from related cleaning activities, before consideration of controls, is required to implement the final VOC emission control measures, work practice standards, and recordkeeping and reporting requirements. The owner or operator of a facility that emits less than 2.7 tons of actual VOC emissions per 12-month rolling period threshold, including VOC emissions from related cleaning activities, before consideration of controls, are subject only to the recordkeeping requirements and, if requested by DEP, reporting requirements of the final rulemaking.

IRRC and one public commentator provided comments on the proposed rulemaking. The public commentator expressed concerns about the proposed compliance date of January 1, 2016, as well as the applicability of the proposed rulemaking measures to the use of aerosol coatings and hand-held aerosol cans. IRRC provided comments echoing the commentator's concerns as well as concerns about reasonableness and clarity. IRRC also expressed concern about the option for certain owners and operators to elect to comply with the proposed rulemaking for automobile and light-duty truck assembly coatings and recommended that the Board ensure that the two proposed rulemakings are adopted on the same date.

To address the commentator's and IRRC's comments, the compliance date was revised to January 1, 2017, in the final-form Annex A. Also, language clarifying the applicability to hand-held aerosol cans was added into the final-form Annex A. With regard to the two concurrent proposed rulemakings, DEP is submitting the two regulations for simultaneous promulgation and then publication in the *Pennsylvania Bulletin*.

A draft final-form Annex was presented to the Air Quality Technical Advisory Committee (AQTAC) on February 11, 2016, the Citizens Advisory Council (CAC) Policy and Regulatory Oversight Committee on March 2, 2016, the CAC on March 15, 2016, and the Small Business Compliance Advisory Committee (SBCAC) on April 27, 2016. AQTAC, the Policy and Regulatory Oversight Committee, the CAC, and the SBCAC concurred with DEP's recommendation to move the regulation forward in the regulatory review process.

The Control of VOC Emissions from Automobile and Light-Duty Truck Assembly Coating Operations and Heavier Vehicle Coating Operations (#7-490) final-form rulemaking amends 25 Pa. Code Chapter 129 to add § 129.52e (henceforth referred to as ALDT) to limit VOC emissions from automobile and light-duty truck assembly coating operations and heavier vehicle coating operations. Final-form ALDT establishes VOC emission limits and other requirements consistent with the RACT recommendations issued by the EPA in the 2008 Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings (2008 ALDT CTG).

DEP identified 13 facilities in the Commonwealth whose owners and operators may be subject to the final-form rulemaking. The requirements of final-form ALDT apply to the owner and operator of the following: an automobile and light-duty truck assembly coating operation that applies an assembly coating to a new automobile body or a new light-duty truck body, or to a body part (or another part coated along with the body part) for a new automobile or for a new light-duty truck; an automobile and light-duty truck assembly coating operation that operates a separate coating line at the facility on which a coating is applied to another part intended for use in a new automobile or new light-duty truck or an aftermarket repair or replacement part for an automobile or light-duty truck if the owner or operator elects to comply with this section instead of MMPP; a facility that coats a body or body part for new heavier vehicles if the owner or operator elects to comply with this section instead of MMPP; or a facility that performs a coating operation subject to this section on a contractual basis.

The owner or operator of a facility that emits 15 pounds or more of total actual VOC emissions per day, including VOC emissions from related cleaning activities, before consideration of controls, is required to implement the final VOC emission control measures, work practice standards, a written work practice plan for cleaning materials, compliance monitoring and daily recordkeeping requirements, and to submit records to DEP upon receipt of a written request. The owner or operator of a facility that emits less than 15 pounds per day of total actual VOC emissions, including VOC emissions from related cleaning activities, before consideration of controls, will be subject only to the compliance monitoring and daily recordkeeping requirements and, if requested by DEP, the reporting requirements of the final rulemaking.

The owners and operators of 12 of these 13 facilities manufacture or surface coat, or both, bodies or body parts for new heavier vehicles such as fire trucks, ambulances and tow trucks and will

July 15, 2016

only be subject to this final-form rulemaking if they elect to comply with this final-form rulemaking instead of the final-form rulemaking for MMPP.

The Board did not receive any public comments on the proposal. IRRC provided comments regarding the proposed compliance date of January 1, 2016, and recommended that the Board establish a compliance date that allows for the proper development of a final-form regulation and full compliance by the regulated community. IRRC also noted that the owner or operator of a separate coating line at an automobile and light-duty truck assembly coating facility, and the owner or operator of a facility that coats a body or body part for a new heavier vehicle, have the option to be regulated under this rulemaking or under the concurrently proposed MMPP rulemaking. IRRC recommended that the Board ensure that the two rulemakings are simultaneously promulgated.

To address IRRC's comments, the compliance date was revised to January 1, 2017, in the final-form Annex A. As previously noted, with regard to the two concurrent proposed rulemakings, DEP is submitting the two regulations for simultaneous promulgation and then publication in the *Pennsylvania Bulletin*.

A draft final-form Annex was presented to the AQTAC on February 11, 2016, the CAC Policy and Regulatory Oversight Committee on March 2, 2016, the CAC on March 15, 2016, and the SBCAC on April 27, 2016. The AQTAC voted to concur with DEP's recommendation to move the draft final-form regulation forward to the Board for consideration as a final rulemaking. The Policy and Regulatory Oversight Committee, the CAC, and the SBCAC concurred with DEP's recommendation to move the regulation forward in the regulatory review process.

The Department will provide assistance as necessary to facilitate IRRC's review of the enclosed final-form rulemaking under Section 5.1(e) of the Regulatory Review Act.

Please contact me by e-mail at ledinger@pa.gov or by telephone at 717.783.8727 if you have any questions or need additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read "Laura Edinger".

Laura Edinger
Regulatory Coordinator

Enclosures

**TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO
 THE REGULATORY REVIEW ACT**

I.D. NUMBER: 7-490 Control of VOC Emissions From Automobile and
 SUBJECT: Light-Duty Truck Assembly Coating Operations and Heavier
 Vehicle Coating Operations
 AGENCY: DEPARTMENT OF ENVIRONMENTAL PROTECTION

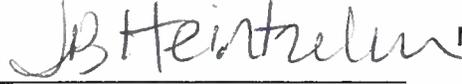
TYPE OF REGULATION

- Proposed Regulation
- Final Regulation
- Final Regulation with Notice of Proposed Rulemaking Omitted
- 120-day Emergency Certification of the Attorney General
- 120-day Emergency Certification of the Governor
- Delivery of Tolerated Regulation
 - a. With Revisions
 - b. Without Revisions

2016 JUL 15 PM 2:00

IRRC

FILING OF REGULATION

DATE	SIGNATURE	DESIGNATION
7/15/16		Majority Chair, HOUSE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY Representative John Maher
7-15-16		Minority Chair, HOUSE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY Representative Greg Vitali
7-15-16		Majority Chair, SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY Senator Gene Yaw
7/15/16		Minority Chair, SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY Senator John Yudichak
7/15/16		INDEPENDENT REGULATORY REVIEW COMMISSION David Sumner
_____	_____	ATTORNEY GENERAL (for Final Omitted only)
_____	_____	LEGISLATIVE REFERENCE BUREAU (for Proposed only)

