

<h1 style="text-align: center;">Regulatory Analysis Form</h1> <p style="text-align: center;">(Completed by Promulgating Agency)</p>		<p>INDEPENDENT REGULATORY REVIEW COMMISSION</p>
<p>(All Comments submitted on this regulation will appear on IRRC's website)</p>		
<p>(1) Agency Environmental Protection</p>		
<p>(2) Agency Number: Identification Number: 7-490</p>		<p>IRRC Number:</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: Patrick McDonnell, 783-8727, pmcdonnell@pa.gov</p>		
<p>(6) Type of Rulemaking (check applicable box):</p> <p><input checked="" type="checkbox"/> Proposed Regulation <input type="checkbox"/> Final Regulation <input type="checkbox"/> Final Omitted Regulation</p>		<p><input type="checkbox"/> Emergency Certification Regulation <input type="checkbox"/> Certification by the Governor <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 proposed rulemaking would amend Chapter 129 (relating to standards for sources) to 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 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 proposed rulemaking would also amend § 129.51 (relating to general) to support the addition of § 129.52e.</p> <p>This proposed rulemaking would apply 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, would have the option to elect to be regulated under this proposed rulemaking instead of proposed § 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). This option is provided to allow these owners and operators flexibility in complying with their permit conditions and to optimize their operations. The proposed rulemaking for § 129.52d would be adopted as a final rulemaking on the same date of final adoption as this proposed rulemaking. This proposed rulemaking would also apply to the owner and operator of a facility that performs a coating operation subject to this proposed rulemaking on a contractual basis.</p>		

This proposed rulemaking would 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 proposed rulemaking would also 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.

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. The ground-level ozone air pollution reduction measures in this proposed rulemaking are reasonably necessary to attain and maintain the health- 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.

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

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

The proposed rulemaking is authorized under section 5(a)(1) of the Air Pollution Control Act (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.

Yes. State regulations to control VOC emissions from the automobile and light-duty truck assembly coating operations, as well as the related cleaning activities, are required under Federal law. The state 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).

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 proposed 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 (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).

Section 109(b) of the CAA (42 U.S.C.A. § 7409(b)) provides that the Administrator of the EPA must establish NAAQS for criteria air pollutants at levels that protect public health and welfare and the environment. The criteria air pollutants are commonly found throughout the United States and currently include six air pollutants: ground-level ozone, particle pollution (often referred to as particulate matter), carbon monoxide, sulfur oxides, nitrogen dioxide, and lead. These air pollutants, when present in sufficient concentration in the ambient air, can cause harm to public health and welfare and to the environment.

The EPA calls these six principal air pollutants "criteria" air pollutants because it regulates them by developing human health-based or environmentally-based, or both, criteria (science-based guidelines) for setting permissible ambient air levels. The set of standards based on human health is called primary standards. Another set of standards intended to prevent environmental and property damage is called secondary standards. Of the six criteria air pollutants, high concentrations of ground-level ozone and of particle pollution are the most widespread health and welfare threats. The EPA promulgated the ground-level ozone NAAQS in July 1997 at 0.08 part per million (ppm) averaged over 8 hours and lowered it in March 2008 to 0.075 ppm. See 62 FR 38855 (July 18, 1997) and 73 FR 16436 (March 27, 2008).

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. CTG documents provide information about a source category and recommendations of what the EPA considers to be RACT for the source category.

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 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 where the EPA determines that the CTG will be "substantially as effective as regulations" in reducing emissions of VOC in ozone nonattainment areas. The CTG provides states with the EPA's recommendation of what constitutes RACT for the covered 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 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.

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 Automobile and Light-Duty Truck Assembly Coatings CTG 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) established under section 184 (www.otcair.org). 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 Pennsylvania, 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 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 Automobile and Light-Duty Truck Assembly Coatings 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 reviewed the recommendations included in the 2008 Automobile and Light-Duty Truck Assembly Coatings 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 CTG are appropriate to be implemented in this Commonwealth as RACT for this category. The ground-level ozone reduction measures included in this proposed rulemaking would achieve VOC emission reductions locally and would 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.

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) 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, sanctions will be imposed 18 months after the Administrator makes the determination (i.e., "failure to submit finding"). 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 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 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.

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 2013 ozone season, all monitored areas of the Commonwealth are attaining the 1997 8-hour ozone NAAQS. The Department must ensure that the 1997 ozone standard is attained and maintained by implementing permanent and enforceable control measures to ensure violations of the standard do not occur for the next decade.

In April 2012, the EPA designated five areas in Pennsylvania 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 Commonwealth must ensure that these areas attain the 2008 ozone standard by 2015 and that they continue to maintain the standard thereafter.

(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.

The purpose of this proposed 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 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 surface coating processes to the atmosphere, but is formed by a photochemical reaction between VOCs and NO_x in the presence of sunlight. The EPA regulates ground-level ozone as a criteria air pollutant because of its widespread adverse health and 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. Implementation of the proposed VOC control measures would benefit the health and welfare of the approximately 12.77 million residents (as of July 2013) and the numerous animals, crops, vegetation and natural areas of this Commonwealth by reducing emissions of VOCs and the subsequent formation of ground-level ozone air pollution. 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 measures in the proposed rulemaking are reasonably necessary to attain and maintain the health- 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.

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 levels of ground-level ozone also affect animals including pets, livestock, and wildlife, in ways similar to humans.

The EPA has estimated the monetized health benefits of attaining the NAAQS. For example, the EPA estimated that the monetized health benefits of attaining the 2008 8-hour ozone standard 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. The Department is not stating that these estimated monetized health benefits would all be the result of implementing the proposed rulemaking RACT measures, but the EPA estimates are indicative of the benefits to Commonwealth residents of attaining the 2008 8-hour ozone NAAQS.

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.

Ground-level ozone 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.

An important staple food cash crop raised here in Pennsylvania that is sensitive to ground-level ozone is soybeans. Lisa Ainsworth, a University of Illinois associate professor of crop sciences and United States Department of Agriculture (USDA) Agricultural Research Service plant molecular biologist, and her research team conducted a 2 year study in 2009 and 2010 at the Soybean Free Air Concentration Enrichment (SoyFACE) facility at the University of Illinois South Farms.² It was the first dose-response experiment to look at ozone exposure-response and soybean cultivars under completely open-air conditions. The group investigated the responses of seven different soybean genotypes to eight ambient ozone concentrations. The plants were exposed to ground-level ozone concentrations ranging from ambient levels of 38 parts per billion (ppb) up to 200 ppb. They found that any increase above the

¹ *Regulatory Impact Analysis, Final National Ambient Air Quality Standard for Ozone*, July 2011, http://epa.gov/glo/pdfs/201107_OMBdraft-OzoneRIA.pdf.

² *Ozone Exposure Response for U.S. Soybean Cultivars: Linear Reductions in Photosynthetic Potential, Biomass, and Yield*. Published online before print October 2012, doi: <http://dx.doi.org/10.1104/pp.112.205591>; *Plant Physiology* December 2012 vol. 160 no. 4 1827-1839; <http://www.plantphysiol.org/content/160/4/1827.full.pdf+html>.

sensitivity threshold of 40 ppb was enough to reduce seed yield: roughly half a bushel per acre for each additional part per billion of ozone. "This is significant," Ainsworth says. "Especially considering that background concentrations of ground-level ozone today vary year to year, anywhere from about 38 to 39 ppb to about 62 ppb. That can be 15 bushels per acre from one year to the next that farmers are losing to ozone." "Breeders haven't inadvertently bred for ozone tolerance in more modern [soybean] lines," Ainsworth said. "They're [modern soybean lines] still sensitive to ozone, which means that farmers are still subject to these yearly variations in ozone and are losing yield accordingly."³

A comparison of soybean yields in Pennsylvania with the Department's ozone monitoring data over the past 15 years shows a similar trend. Monitored levels of ozone in Pennsylvania using the 3-year average of the fourth daily maximum 8-hour averages (design value), in parts per billion (ppb), ranged from approximately 100 ppb in 1999 to approximately 75 ppb in 2012.⁴ As monitored levels of ozone have decreased approximately 25 ppb (100 ppb – 75 ppb) from the late 1990s to 2012, yields of soybeans have increased from 37 bushels per acre in 1997⁵ to 48 bushels per acre in 2012.⁶ This is roughly a half bushel per acre increase over the time period (48 bushels per acre – 37 bushels per acre = 11 bushels per acre actual measured increase in yield; 11 bushels per acre/25 ppb = 0.44 bushel increase per 1 ppb decrease). Using the United States average July 2012 price of \$15.40 per bushel of soybeans,⁷ this is an increase of as much as \$169.40 per acre in revenue for harvested soybeans in 2012 for Pennsylvania soybean growers over the 1997 harvests (11 bushels per acre x \$15.40 per bushel = \$169.40 per acre). The USDA National Agricultural Statistics Service reported in a January 1, 2013, news release⁸ that Pennsylvania harvested 520,000 acres of soybeans in 2012. At \$169.40 per acre, this results in approximately \$88 million in increased revenue in 2012 to Pennsylvania soybean farmers for the yield of 48 bushels per acre compared to the yield of 37 bushels per acre (\$169.40 x 520,000 acres = \$88 million).

Further, in the context of the Ainsworth SoyFACE study, simply achieving and maintaining the 2008 secondary ozone standard of 0.075 ppm (75 ppb) would indicate that Pennsylvania soybean growers could be losing as much as 15.4 bushels per acre of yield from their soybean crop due to ozone sensitivity (75 ppb – 40 ppb ozone sensitivity threshold = 35 ppb; 35 ppb x 0.44 bushel lost per acre per ppb increase over 40 ppb ozone sensitivity threshold = 15.4 bushels). Using the United States preliminary average July 2014 price of \$12.70 per bushel of soybeans,⁹ the loss of revenue due to decreased yield as a result of ozone sensitivity could potentially be as much as \$195.58 per acre (15.4 bushels per acre x \$12.70 per bushel = \$195.58). At \$195.58 in lost revenue per acre, times the 520,000 acres of soybeans harvested in 2012, this is a potential loss of \$101 million in annual revenue to Pennsylvania soybean farmers (\$195.58 per acre x 520,000 acres = \$101 million) due to sustained ozone sensitivity.

The Department is not stating that the increased yields of soybeans from Pennsylvania farms are solely due to improved ozone air quality; the results of the SoyFACE study and the conclusions of the researchers are a demonstration, however, of the correlations that can be drawn between improving

³ Source: ScienceDaily®, <http://www.sciencedaily.com/releases/2012/10/121030161523.htm>

⁴ 2013 DEP Ambient Air Quality Ozone Monitoring Data.

⁵ United States Department of Agriculture (USDA), Census of Agriculture, 1997, Volume 1, Pennsylvania, Table 41, page 38. http://www.agcensus.usda.gov/Publications/1997/Vol_1_National_State_and_County_Tables/Pennsylvania/index.asp

⁶ USDA, Census of Agriculture, 2012, Volume 1, Pennsylvania, Table 25, page 437.

http://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1_Chapter_1_US/usv1.pdf

⁷ USDA, National Agricultural Statistics Service (NASS), Agricultural Prices August 2012, page 19.

<http://usda.mannlib.cornell.edu/usda/nass/AgriPric//2010s/2012/AgriPric-08-31-2012.pdf>

⁸ Source: http://nass.usda.gov/Statistics_by_State/Pennsylvania/Publications/Survey_Results/acreageann13.pdf

⁹ USDA, NASS, Agricultural Prices July 2014, page 22.

<http://usda.mannlib.cornell.edu/usda/nass/AgriPric//2010s/2014/AgriPric-07-31-2014.pdf>

ozone air quality and increasing crop yields. The results of the study also indicate the importance to Commonwealth agriculture of continuing to attain and maintain the 2008 8-hour ozone NAAQS.

Information about the economic benefit of the Pennsylvania agricultural industry to the Commonwealth is provided by the Pennsylvania Department of Agriculture. Pennsylvania's 62,000 farm families are the stewards of more than 7.7 million acres of farmland. With \$6.8 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 \$68 billion to Pennsylvania's economy.¹⁰ These families, farms, and related businesses benefit directly from the reduction of ground-level ozone air pollution concentrations to attain and maintain the 2008 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.¹¹

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).¹²

¹⁰ Pennsylvania Department of Agriculture, 2014.

http://www.agriculture.state.pa.us/portal/server.pt/gateway/PTARGS_0_2_24476_10297_0_43/AgWebsite/Page.aspx?name=About-PDA&navid=30&parentnavid=0&pageid=9&

¹¹ 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

¹² 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*.

http://www.agriculture.state.pa.us/portal/server.pt/gateway/PTARGS_0_2_24476_10297_0_43/AgWebsite/Files/Publications/8631_panel11_Leading_the_Nation_100ppi.jpg

(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 proposed rulemaking are not more stringent than the recommendations of the EPA 2008 Automobile and Light-Duty Truck Assembly Coatings CTG upon which the proposed rulemaking is based. The recommended VOC emission limits for the electrodeposition primer, primer-surfacer and topcoat operations in EPA's 2008 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 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 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.¹³

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).¹⁴ 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).¹⁵

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

¹³ *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006, page 15.

¹⁴ *Ibid.*, page 16.

¹⁵ *Ibid.*

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 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 CTG are based on the 2006 and 2007 data from then-operating automobile and light-duty truck assembly coating operations.¹⁶

The recommended VOC emission limits in EPA's 2008 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 CTG is the same as the 1977 CTG recommended limit for this category.¹⁷ The work practices recommendations in the 2008 CTG mirror those found in the 2004 NESHAP.¹⁸

This proposed rulemaking is designed to adopt VOC emission limitations and requirements consistent with the standards and recommendations in the 2008 Automobile and Light-Duty Truck Assembly Coatings CTG to meet the requirements of sections 172(c)(1), 182(b)(2) and 184(b)(1)(B) of the CAA. The proposed rulemaking would apply these VOC emission limitations and requirements across this Commonwealth, as required under section 184(b)(1)(B) of the CAA. The ground-level ozone air pollution reduction measures in this proposed rulemaking are reasonably necessary to attain and maintain the health- and welfare-based 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 proposed 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 proposed rulemaking would have no effect on Pennsylvania's ability to compete with other states that have

¹⁶ *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006, page 18.

¹⁷ *Ibid.*, page 19.

¹⁸ *Ibid.*, page 18.

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 would be affected by this proposed rulemaking.

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

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

Section 129.51(a)(3) would be 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) would be amended to establish that the alternative compliance method must be incorporated into a plan approval or operating permit, or both, reviewed by the EPA, including the use of an air cleaning device to comply with § 129.52e.

The requirements of § 129.52e would 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, 2016, except to the extent the RACT permit contains more stringent requirements.

The Department is separately proposing a rulemaking 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 Miscellaneous Metals and Plastic Parts Coatings CTG), Office of Air Quality Planning and Standards, EPA, September 2008 (proposed rulemaking for § 129.52d). The owners and operators of certain types of surface coating processes that would be subject to that proposed rulemaking could, upon election, become subject to this proposed rulemaking instead. Specifically, the RACT requirements and RACT emission limitations of this proposed rulemaking would 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 Miscellaneous Metals and Plastic Parts Coatings CTG and are subject to the requirements included in the proposed rulemaking for § 129.52d.

However, the EPA recommended in the 2008 Automobile and Light-Duty Truck Assembly Coatings 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 Automobile and Light-Duty Truck Assembly Coatings CTG instead of the 2008 Miscellaneous Metal and Plastic Parts Coatings CTG (proposed 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 Miscellaneous

Metal and Plastic Parts Coatings CTG or the 2008 Automobile and Light-Duty Truck Assembly Coatings CTG.¹⁹ Accordingly, in the two proposed 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, would have the option to elect to be regulated under this proposed rulemaking instead of proposed § 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 proposed rulemaking for § 129.52d would be adopted as a final rulemaking on the same date of final adoption as this proposed rulemaking.

(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 proposed rulemaking was discussed with the Air Quality Technical Advisory Committee (AQTAC) on April 3, 2014. The AQTAC voted unanimously to concur with the Department’s recommendation to forward the proposed rulemaking to the Board for consideration as a proposed rulemaking. The proposed rulemaking was discussed with the Small Business Compliance Advisory Committee (SBCAC) on April 23, 2014. The SBCAC voted unanimously to concur with the Department’s recommendation to move the proposed rulemaking to the Board for consideration, with a recommendation to consider flexibility for small businesses. The proposed rulemaking was discussed with the Citizens Advisory Council (CAC) Policy and Regulatory Oversight (PRO) Committee on May 6, 2014. On the recommendation of the PRO Committee of the CAC, on June 17, 2014, the CAC concurred with the Department’s recommendation to forward the proposed rulemaking to the Board. 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?

The proposed rulemaking would apply 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 no more than 61 businesses, all of which would likely be small businesses, would be affected by the proposed rulemaking. The owners and operators of approximately 47 of the affected businesses would be subject to the compliance monitoring and VOC content limit requirements. The owners and operators of these affected businesses would 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 would only be subject to compliance monitoring and daily recordkeeping requirements and, if requested by the Department, reporting requirements.

This proposed rulemaking would apply 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

¹⁹ *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.

proposed rulemaking would also apply to the owner and operator of a facility that performs a coating operation subject to this proposed rulemaking on a contractual basis.

This proposed rulemaking would also apply 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, if the owner or operator elects to comply with this proposed rulemaking (proposed § 129.52e) instead of the proposed rulemaking for § 129.52d. Similarly, this proposed rulemaking would apply 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 proposed rulemaking (proposed § 129.52e) instead of the proposed rulemaking for § 129.52d. 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.²⁰ The proposed rulemaking for § 129.52d would be adopted as a final rulemaking on the same date of final adoption as this proposed rulemaking.

This option to elect to comply with this proposed rulemaking (proposed § 129.52e) instead of the proposed rulemaking for § 129.52d is provided to allow these owners and operators flexibility in complying with their permit conditions and to optimize their operations. This effectuates the recommendations of the EPA in the 2008 Automobile and Light-Duty Truck Assembly Coatings CTG.²¹

This proposed rulemaking would 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 proposed rulemaking would also 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 automobile and light-duty truck assembly coating materials identified by the EPA under section 183(e) of the CAA, and covered by the proposed rulemaking, consist of the primary coatings that 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 category also includes additional coatings applied during the vehicle assembly process. These additional coatings are glass bonding primer, adhesives, cavity wax, sealer, deadener, gasket/gasket sealing material, underbody coating, trunk interior coating, bedliner, weatherstrip adhesive, and lubricating waxes/compounds. The EPA VOC emission control recommendations included in the 2008 Automobile and Light-Duty Trucks Assembly Coatings CTG, and reflected in the proposed rulemaking, include VOC content limits for the listed coatings.

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 related cleaning activities and before consideration of controls, would need to meet the VOC content limit applicable to the coating, beginning January 1, 2016. These owners and operators would also be required to implement work practice standards for coatings and for cleaning materials, including developing and 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 would be maintained onsite and made available to the Department upon request.

²⁰ *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006, page 4, footnote.

²¹ *Ibid.*, page 4, and *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts*, EPA-453/R-08-003, page 4.

These owners and operators would be required to maintain records sufficient to demonstrate compliance with the proposed 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 would 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 related cleaning activities and before consideration of controls, would be subject only to the compliance monitoring and daily recordkeeping requirements and, if requested by the Department, reporting requirements of the proposed rulemaking.

The Department's assessment of how many owners and operators of covered facilities would potentially be subject to the proposed rulemaking resulted from reviewing information provided in the CTG for this category as well as the Department's air quality permits databases 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 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 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 air quality 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 emissions, as well as site NAICS codes, are inputted into AIMS to maintain the 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.

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 CTG. A search of the Internet revealed that the owners and operators of 4 of the 17 facilities would not be affected by the proposed 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 would only be subject to this proposed rulemaking if they elect to comply with this proposed rulemaking instead of the proposed rulemaking for miscellaneous metal and plastic parts. For purposes of discussing the potential impacts of this proposed rulemaking, however, the Department assumed that the owners and operators of these 13 facilities would elect to be subject to the proposed 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% ($10/13 \times 100$), 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 would be assumed to emit 15 pounds (6.8 kilograms) or more of total actual VOC emissions per day, including related cleaning activities and before consideration of controls, and would 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 would 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% ($3/13 \times 100$), 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 would be assumed to emit less than 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including related cleaning activities and before consideration of controls, and would be subject only to the compliance monitoring and daily recordkeeping requirements and, if requested by the Department, reporting requirements of the proposed rulemaking.

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 measures for the control of those VOC emissions. Adopting RACT regulations is a Federal CAA requirement. The

regulations must apply to the owners and operators of all affected sources that meet the applicable VOC emission thresholds regardless of business size.

The Pennsylvania SBDC EMAP generated a list of 95 small businesses 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 would likely not be subject to the proposed 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 proposed 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 likely not to be affected by the proposed 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 would potentially be subject to the proposed 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 proposed 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 would have actual VOC emissions at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including related cleaning activities and before consideration of controls. The owners and operators of these 37 facilities would 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 would 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 would be assumed to emit less than 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including related cleaning activities and before consideration of controls. The owners and operators of these 11 facilities would be subject only to the compliance monitoring and daily recordkeeping requirements and, if requested by the Department, reporting requirements of the proposed rulemaking.

The estimated projected total number of potentially subject facility owners and operators that would have actual VOC emissions at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including related cleaning activities and before consideration of controls, would be 47 (10 DEP + 37 SBDC EMAP). The estimated projected total number of potentially subject facility owners and operators that would have actual VOC emissions below the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including related cleaning activities and before consideration of controls, would be 14 (3 DEP + 11 SBDC EMAP). Additional information regarding potentially subject facility owners and operators will be gleaned during the public participation process.

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 related cleaning activities and 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 Automobile and Light-Duty Truck Assembly Coatings 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 proposed rulemaking measures to control VOC emissions. If the proposed rulemaking would apply to the owners and operators of facilities that have not yet been identified, they would 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.

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 that would potentially be subject to the proposed rulemaking measures would likely not have additional costs to comply with the proposed 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 CTG.

However, the owners and operators of none of the permitted facilities identified by the Department as potentially subject to the proposed 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 surface coating 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 Automobile and Light-Duty Truck Assembly Coatings CTG.

Consistent with the 2008 CTGs, the proposed rulemaking provides the owner or operator of these heavier vehicle coating facilities the option to elect to be regulated under this proposed rulemaking instead of proposed § 129.52d. The EPA did not provide cost estimates in the 2008 Automobile and Light-Duty Truck Assembly Coatings 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 proposed rulemaking measures by using the cost estimates for implementing the recommended RACT measures of the 2008 Miscellaneous Metal and Plastic Parts Coatings CTG.

The EPA estimated that the annual cost to owners and operators to comply with regulations based on the 2008 Miscellaneous Metal and Plastic Parts Coatings 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.²² The EPA believes that the work practice recommendations in the 2008 CTG will result in a net cost savings. 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 proposed 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 proposed § 129.52d or to elect to be subject to proposed § 129.52e. The proposed 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 proposed 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 proposed 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 proposed rulemaking would not require the submission of applications for amendments to existing operating permits. These requirements would be incorporated as applicable requirements at the time of permit renewal, if less than 3 years remain in the permit term, as specified under § 127.463(c) (relating to operating permit revisions to incorporate applicable standards). If 3 years or more remain in the permit term, the requirements would be incorporated as applicable requirements in the permit within 18 months of the promulgation of the final-form rulemaking, as required under § 127.463(b).

New legal, accounting or consulting procedures would 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 proposed rulemaking would apply to the persons, groups or entities, including small businesses, described below in this response. The Department anticipates that the owners and operators of not more than 61 businesses, all of which would likely be small businesses, would be required to comply with the proposed rulemaking.

²² *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts*, EPA-453/R-08-003, page 40.

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

Further, this proposed rulemaking would apply 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, if the owner or operator elects to comply with this proposed rulemaking (proposed § 129.52e) instead of the proposed rulemaking for § 129.52d. Similarly, this proposed rulemaking would apply 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 proposed rulemaking (proposed § 129.52e) instead of the proposed rulemaking for § 129.52d. 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.²³ The election would occur 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 proposed rulemaking (proposed § 129.52e) instead of the proposed rulemaking for § 129.52d. The proposed rulemaking for § 129.52d would be adopted as a final rulemaking on the same date of final adoption as this proposed rulemaking. This option to elect to comply with this proposed rulemaking (proposed § 129.52e) instead of the proposed rulemaking for § 129.52d is provided to allow these owners and operators flexibility in complying with their permit conditions and to optimize their operations. This effectuates the recommendations of the EPA in the 2008 Automobile and Light-Duty Truck Assembly Coatings CTG.²⁴

This proposed rulemaking would 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.²⁵ The proposed coating VOC content limits would not apply to an automobile and light-duty truck assembly coating supplied in containers with a net volume of 16 ounces or less or a net weight of one pound or less.²⁶

The Department reviewed its databases and identified 13 facilities whose owners and operators may be subject to the proposed rulemaking. The owners and operators of the 13 facilities were identified as small businesses under the SBA Small Business Size Regulations under 13 CFR Chapter 1, Part 121. The SBDC EMAP provided the Department with a list of 95 small business-sized facilities in this Commonwealth identified by the specified NAICS codes. Of this group of 95 businesses, the Department determined that the owners and operators of 48 facilities would meet the applicability criteria of the proposed rulemaking. The projected total number of facility owners and operators potentially subject to the proposed rulemaking is 61.

²³ *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006, page 4, footnote.

²⁴ *Ibid.*, page 4, and *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts*, EPA-453/R-08-003, page 4.

²⁵ *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006, page 4.

²⁶ *Ibid.*, page 21.

The Department estimates that of this projected total of 61 potentially subject owners and operators, the projected number of potentially subject facility owners and operators that would have actual VOC emissions at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including related cleaning activities and before consideration of controls, would be 47. The Department estimates that the projected number of potentially subject facility owners and operators that would have actual VOC emissions below the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including related cleaning activities and before consideration of controls, would be 14. Additional information regarding potentially subject facility owners and operators will be gleaned during the public participation process.

Please 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 would 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 proposed rulemaking would be reduced VOC emissions into the atmosphere and reduced formation of ground-level ozone as a result. Reduced formation of ground-level ozone would 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 likely to be affected by the proposed 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 Automobile and Light-Duty Truck Assembly Coatings 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 proposed rulemaking measures by using the cost estimates for implementing the recommended RACT measures of the 2008 Miscellaneous Metal and Plastic Parts Coatings 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 Miscellaneous Metal and Plastic Parts Coatings CTG (proposed rulemaking for § 129.52d) or the 2008 Automobile and Light-Duty Truck Assembly Coatings CTG (proposed 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 anticipates that the owners and operators of not more than 61 surface coating operations, all of which would likely be small businesses, would be affected by the proposed rulemaking. The owner and operator of a facility that would be subject to the proposed rulemaking at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including related cleaning activities and before consideration of controls, would be required to implement VOC emission reduction measures, implement work practice standards for coatings, and develop and implement a written work practice plan for cleaning materials in addition to keeping daily records as described above.

The Department identified 10 potentially subject permitted facility owners and operators from its databases that would likely be subject at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including related cleaning activities and before consideration of controls and required to implement the VOC control measures of the proposed rulemaking. The Department estimates that the maximum potential amount of actual annual VOC emission reductions – a key benefit of the proposed rulemaking – that could be achieved by this group of owners and operators through implementing the proposed rulemaking VOC control measures would be approximately 111 tons, based on their 2013 reported emissions, and depending on the level of compliance already being achieved by the owners and operators of these facilities. The estimated annual maximum combined cost to the owners and operators of these 10 potentially subject permitted facilities would be \$195,138. The estimated annual maximum cost per facility owner and operator would be approximately \$19,514.

Similarly, the Department estimates that implementation of the proposed 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 that would likely be subject at or above the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including related cleaning activities and 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 facilities would be \$726,054. The estimated maximum annual cost per facility owner and operator would be approximately \$19,623.

The owners and operators of the remaining 14 ($61 - 10 - 37 = 14$) facilities would 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 would be subject to the proposed rulemaking below the applicability threshold of 15 pounds (6.8 kilograms) per day of total actual VOC emissions, including related cleaning activities and before consideration of controls, would be required to maintain daily records sufficient to demonstrate that their emissions are below the threshold that triggers implementation of control measures and work practice standards. The daily records would include specified parameters for each coating, thinner, component, and cleaning material as supplied, and daily records of the VOC content of each coating and cleaning material as applied.

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

The financial and operational impact of implementing the recordkeeping and reporting requirements for owners and operators subject to the proposed 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 proposed § 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 proposed rulemaking would already be keeping the required records; therefore, there should be little additional financial or administrative burden for these owners and operators to comply with the proposed rulemaking recordkeeping provisions.

The proposed 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 likely to be 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. 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 proposed § 129.52d or to elect to be subject to proposed § 129.52e. The proposed 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 proposed 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 proposed 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 would 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 proposed VOC emission reduction measures to attain and maintain the ozone NAAQS in this Commonwealth. Although the proposed 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- and HAP-content solvents would benefit groundwater quality through reduced loading on water treatment plants and in reduced quantities of high VOC- and HAP-content solvents leaching into the ground and streams and rivers. The improvements in ground-level ozone air quality and groundwater quality would 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.

The proposed rulemaking may create economic opportunities for VOC emission control technology innovators, manufacturers, and distributors through an increased demand for new or improved equipment.

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

Costs and cost-effectiveness of the anticipated benefits of the proposed 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 proposed rulemaking are expected to outweigh the costs that would be incurred as a result of the proposed rulemaking. As explained in the response to Question 19, the range of cost effectiveness of implementing the proposed 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 likely to be 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 would be incurred by the owners and operators of potentially subject facilities to comply with the proposed rulemaking measures. The EPA has estimated the monetized health benefits of attaining the 8-hour ozone standard 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 economic benefits to the Commonwealth's agricultural and hardwoods industries, which have total annual economic impacts of \$68 billion and \$18.4 billion respectively, could include upwards of as much as \$88 million per year in increased revenue to Pennsylvania soybean farmers due to improved soybean harvests as a result of lower ambient ozone concentrations. The estimated annual costs of \$105,000 to \$195,138 for 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 for the owners and operators of the 37 potentially affected small business-sized facilities identified by the SBDC EMAP for implementing the proposed VOC emission control measures pale in comparison to the potential economic gains in public health and welfare to Commonwealth residents of attaining and maintaining the 2008 8-hour ozone standard.

(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 Automobile and Light-Duty Truck Assembly Coatings 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 Manufacturers member companies and non-member companies.²⁷ 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 proposed rulemaking measures likely would not have additional costs to comply with the proposed 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 CTG.²⁸

However, the owners and operators of none of the permitted facilities identified by the Department as potentially subject to the proposed rulemaking have permits implementing the 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 surface coating 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 Automobile and Light-Duty Truck Assembly Coatings CTG. As discussed in the response to Question 13, the EPA recommended in both the 2008 Automobile and Light-Duty Truck Assembly Coatings CTG and the 2008 Miscellaneous Metal and Plastic Parts Coatings 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 Miscellaneous Metal and Plastic Parts Coatings CTG (proposed rulemaking for § 129.52d) or the 2008 Automobile and Light-Duty Truck Assembly Coatings CTG (proposed rulemaking for § 129.52e).²⁹ The EPA further stated in the 2008 CTGs that due to the stringency of the RACT measures recommended in the 2008 Automobile and Light-Duty Truck Assembly Coatings CTG, owners and operators of heavier vehicle coating operations electing to comply with regulations implementing the recommended VOC control measures of the 2008 Automobile and Light-Duty Truck Assembly Coatings CTG instead of regulations implementing the recommended RACT measures of the 2008 Miscellaneous Metal and Plastic Parts Coatings CTG would achieve at least equivalent, if not greater, control of VOC emissions.³⁰

Consistent with the 2008 CTGs, the proposed 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 proposed rulemaking instead of proposed § 129.52d. The Department developed its estimate of costs for the potentially subject owners and operators implementing the proposed rulemaking measures by using the cost estimates for implementing the recommended RACT measures of the 2008 Miscellaneous Metal and Plastic Parts Coatings CTG since no cost estimates were provided by the EPA in the 2008 Automobile and Light-Duty Truck Assembly Coatings CTG for these types of surface coating operations. The Department likewise used the EPA's estimate from the 2008 Miscellaneous Metal and Plastic Parts Coatings CTG for the amount of VOC emission reductions implementing the recommended control measures would achieve.

The EPA estimated that the annual cost to owners and operators to comply with regulations based on the 2008 Miscellaneous Metal and Plastic Parts Coatings CTG would be \$10,500 per facility and estimated

²⁷ *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*, EPA-453/R-08-006, pages 5- 6.

²⁸ *Ibid.*, page 23.

²⁹ *Ibid.*, page 4, and *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts*, EPA-453/R-08-003, page 4.

³⁰ *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.

the cost effectiveness for controlling the VOC emissions would be \$1,758 per ton of VOC emissions reduced.³¹ The EPA also estimated that implementing the RACT measures of the 2008 Miscellaneous Metal and Plastic Parts Coatings CTG would achieve VOC emission reductions of 35%.³²

The Department therefore estimates that the maximum potential amount of actual annual VOC emission reductions that could be achieved by implementing the proposed rulemaking would be 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 would be required to implement the VOC control measures of the proposed rulemaking (35% reduction x 319 tons VOC emissions = 111 tons reduced). The estimated annual cost to the owners and operators of these 10 potentially subject permitted facilities would be a total of \$195,138 (111 tons reduced x \$1,758 per ton reduced = \$195,138). The cost per facility owner and operator would 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 Miscellaneous Metal and Plastic Parts Coatings 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 Miscellaneous Metal and Plastic Parts Coatings CTG.

The Department therefore estimates that the range of cost effectiveness to these 10 facility owners and operators for implementing the proposed 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 proposed 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 proposed 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 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, 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 would not be a factor in the cost of complying with the proposed rulemaking VOC emission control measures.

The Department estimates a similar cost-effectiveness for the potentially subject small businesses identified by the SBDC EMAP. 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 related cleaning activities and 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 related cleaning activities and before consideration of controls, projects total VOC emissions of

³¹ *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts*, EPA-453/R-08-003, page 40.

³² *Ibid.*

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 \times 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 would be \$726,054 (413 tons reduced \times \$1,758 per ton reduced = \$726,054). The annual cost per facility owner and operator would 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 Miscellaneous Metal and Plastic Parts Coatings 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, could be as little as \$941 per ton of VOC emissions reduced (37 facilities \times \$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 Miscellaneous Metal and Plastic Parts Coatings CTG.

The Department therefore estimates that the range of cost effectiveness to these 37 potentially subject facility owners and operators for implementing the proposed 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 proposed 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 proposed 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. 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, 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 would be subject to the proposed rulemaking would 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 proposed § 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 proposed rulemaking would already be keeping the required records; therefore, there should be little additional financial or administrative burden for these owners and operators to comply with the proposed 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 would be no costs and/or savings to local governments associated with compliance with the proposed 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 would be no costs and/or savings to local governments associated with compliance with the proposed 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 proposed rulemaking would be required to keep daily records of certain parameters for coatings and cleaning materials used and, if requested by the Department, would 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 would 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 14/15	FY+1 Year 15/16	FY+2 Year 16/17	FY+3 Year 17/18	FY+4 Year 18/19	FY+5 Year 19/20
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 (11/12)	FY-2 (12/13)	FY-1 (13/14)	Current FY (14/15)
Environmental Program Management (161-10382)	\$27,755,000	\$24,965,000	\$25,733,000	\$28,517,000
Clean Air Fund Major Emission Facilities (215-20077)	\$20,055,000	\$18,464,000	\$18,413,000	\$20,874,000
Clean Air Fund Mobile and Area Facilities (233-20084)	\$2,710,000	\$10,198,000	\$8,036,000	\$10,581,000

(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 anticipates that 61 small business-sized facility owners and operators may be subject to the proposed rulemaking. It is possible that the proposed rulemaking would also apply to owners and operators of other facilities that have not yet been identified. If the proposed rulemaking would apply to other facilities, they would likely also be small businesses

By way of explanation, the proposed rulemaking would apply to the owner and operator of an automobile and light-duty truck assembly coating operation. This proposed rulemaking would also apply 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 proposed rulemaking (proposed § 129.52e) instead of the proposed rulemaking for § 129.52d. This proposed rulemaking would also apply to the owner and operator of a facility that performs a coating operation subject to this proposed rulemaking on a contractual basis.

The Department reviewed its databases and identified 13 facilities whose owners and operators may be subject to the proposed rulemaking, if they elect to comply with this proposed rulemaking instead of the proposed rulemaking for miscellaneous metal and plastic parts. For purposes of discussing the potential impacts of this proposed rulemaking, however, the Department assumed that the owners and operators of these 13 facilities would elect to be subject to this proposed 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 would potentially be subject to the proposed rulemaking. The combined lists provide a total of 61 small business-sized facility owners and operators that may be subject to the proposed 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 proposed § 129.52e(f) for owners and operators of surface coating processes subject to the proposed 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 proposed rulemaking would already be 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 proposed rulemaking recordkeeping provisions.

The daily records required by this proposed 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 would 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 proposed rulemaking, including related cleaning activities, would also be required to 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 would 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 proposed 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 would not need to make operational changes or incur additional costs to implement the requirements of the proposed rulemaking. The proposed 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, the owners and operators identified by the Department as potentially subject to the proposed rulemaking have operations that coat bodies and body parts for new heavier vehicles, which are covered by the requirements of the proposed rulemaking for § 129.52d.

Flexibility in compliance for these owners and operators would be provided by the option to remain subject to the requirements of proposed § 129.52d or to elect to be subject to proposed § 129.52e. The proposed rulemaking provides 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 proposed 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 proposed 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 proposed rulemaking, but the proposed rulemaking must satisfy the Federal CAA requirements. Adopting RACT regulations is a Federal CAA requirement. The regulations 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 proposed rulemaking would establish VOC content limits and other requirements consistent with the recommendations of the EPA 2008 Automobile and Light-Duty Truck Assembly Coatings Control Techniques Guidelines 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).

(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 subject to the proposed rulemaking would not be affected by the proposed 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 proposed § 129.52e(f) for owners and operators of surface coating processes subject to the proposed 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 proposed rulemaking would already be 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 proposed rulemaking recordkeeping provisions.

As discussed in the response to Question 19, 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, 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 proposed rulemaking is considered the least burdensome acceptable method of ensuring compliance with the Federal CAA RACT requirement. In accordance with sections 172(c)(1), 182(b)(2)(A) and 184(b)(1)(B) of the CAA, the proposed rulemaking would establish VOC content limits and other requirements consistent with the recommendations of the EPA 2008 Automobile and Light-Duty Truck Assembly Coating 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).

The proposed 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 by the Department as potentially subject to the proposed rulemaking have operations that coat bodies and body parts for new heavier vehicles. Flexibility in compliance for these owners and operators would be provided by the option to remain subject to the requirements of proposed § 129.52d

or to elect to be subject to proposed § 129.52e. The proposed 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 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 would not incur additional costs to implement the requirements of the proposed 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.

Less stringent compliance or reporting requirements are not available for small businesses. The owners and operators of all facilities found to be affected are small businesses, and some are already permitted. The Department included flexibilities within the proposed rulemaking, but the proposed rulemaking must satisfy the Federal CAA requirements. Adopting RACT regulations is a Federal CAA requirement. The regulations 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 proposed rulemaking would establish VOC content limits and other requirements consistent with the recommendations of the EPA 2008 Automobile and Light-Duty Truck Assembly Coatings Control Techniques Guidelines 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).

(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 proposed rulemaking is overdue to the EPA for approval as a SIP revision. Further delay of implementation would not be feasible. The proposed rulemaking process provides ample time for the owners and operators of facilities that might be subject to the proposed rulemaking 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 proposed rulemaking should allow the owners and operators of small business-sized facilities to find an acceptable method of compliance appropriate to their operation. Reporting would only be necessary under the proposed 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 proposed 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 could achieve equivalent compliance through an alternative method under the proposed amendment of § 129.51(a) to extend its applicability to the owner and operator of a coating operation subject to this proposed 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 proposed § 129.52d or to elect to be subject to proposed § 129.52e.

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

Adopting RACT regulations is a Federal CAA requirement. The regulations 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 regulations designed to implement measures for the control of those VOC emissions.

(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:

The Department reviewed the information provided by the EPA in the CTG for establishing RACT for the sources that would be subject to this proposed 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, 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.³³

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

³³ United States Environmental Protection Agency, Scientific Integrity Policy, http://www.epa.gov/osa/pdfs/epa_scientific_integrity_policy_20120115.pdf, page 1.

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>.

The Department reviewed data of the United States Department of Agriculture (USDA) for purposes of evaluating the potential financial impact of high levels of ambient ozone on soybean production in this Commonwealth. The USDA provides information on its data quality in the following publication available on its web site: USDA Scientific Integrity Policy Handbook (Guidance for Implementation of DR 1074-001), July 10, 2013.³⁴ "The policy directs employees, political and career, on both the proper use of scientific findings and the principles of conducting scientific activities consistent with the Presidential Memorandum on Scientific Integrity, dated March 9, 2009, the Office of Science and Technology Policy's 2010 guidance on scientific integrity, the Office of Management and Budget (OMB) Information Quality Guidelines and the 2005 OMB Final Information Quality Bulletin for Peer Review."³⁵

The National Agricultural Statistics Service, USDA, provides information on its statistical sampling methods and data quality in the following two publications available on its web site:

Office of Management and Budget, Standards and Guidelines for Statistical Surveys, September 2006, http://www.nass.usda.gov/Publications/Methodology_and_Data_Quality/Advanced_Topics/standards_stat_surveys_OMB.pdf.

The Yield Forecasting Program of NASS, Statistical Methods Branch, SMB Staff Report, Number SMB 12-01, May 2012, http://www.nass.usda.gov/Publications/Methodology_and_Data_Quality/Advanced_Topics/Yield%20Forecasting%20Program%20of%20NASS.pdf.

The Ainsworth SoyFACE studies report, *Ozone Exposure Response for U.S. Soybean Cultivars: Linear Reductions in Photosynthetic Potential, Biomass, and Yield*, includes a statement of materials and methods on page 1835. Published online before print October 2012, doi: <http://dx.doi.org/10.1104/pp.112.205591>; *Plant Physiology* December 2012 vol. 160 no. 4 1827-1839; <http://www.plantphysiol.org/content/160/4/1827.full.pdf+html>.

The following list provides complete 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).

³⁴ USDA Scientific Integrity Policy Handbook (Guidance for Implementation of DR 1074-001), July 10, 2013, <http://www.usda.gov/documents/usda-scientific-integrity-policy-handbook.pdf>.

³⁵ *Ibid.*, page 1, footnotes 2 and 3.

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.

Ozone Exposure Response for U.S. Soybean Cultivars: Linear Reductions in Photosynthetic Potential, Biomass, and Yield, Amy M. Betzelberger, Craig R. Yendrek, Jindong Sun, Courtney P. Leisner, Randall L. Nelson, Donald R. Ort, and Elizabeth A. Ainsworth, published online before print October 2012, doi: <http://dx.doi.org/10.1104/pp.112.205591>; *Plant Physiology* December 2012 vol. 160 no. 4 1827-1839; <http://www.plantphysiol.org/content/160/4/1827.full.pdf+html>.

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

http://www.agriculture.state.pa.us/portal/server.pt/gateway/PTARGS_0_2_24476_10297_0_43/AgWebsite/Page.aspx?name=About-PDA&navid=30&parentnavid=0&pageid=9&

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.

http://www.agriculture.state.pa.us/portal/server.pt/gateway/PTARGS_0_2_24476_10297_0_43/AgWebsite/Files/Publications/Hardwoods%20Biennial%20Report%202010.pdf.

Pennsylvania Hardwoods Development Council, Photo, *Pennsylvania Hardwood Leading the Nation*.

http://www.agriculture.state.pa.us/portal/server.pt/gateway/PTARGS_0_2_24476_10297_0_43/AgWebsite/Files/Publications/8631_panel11_Leading_the_Nation_100ppi.jpg.

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://epa.gov/glo/pdfs/201107_OMBdraft-OzoneRIA.pdf.

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

- | | |
|---|------------------------------------|
| A. The date by which the agency must receive public comments: | <u>2nd Quarter 2015</u> |
| B. The date or dates on which public meetings or hearings will be held: | <u>2nd Quarter 2015</u> |
| C. The expected date of promulgation of the proposed regulation as a final-form regulation: | <u>4th Quarter 2015</u> |

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| 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, 2016</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.