Regulatory Analysis Form

(Completed by Promulgating Agency)

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INDEPENDENT REGULATORY REVIEW COMMISSION

(1) Agency
Environmental Protection

(2) Agency Number:
Identification Number: 7-487

IRRC Number**:**

(3) PA Code Cite: 25 *Pa. Code* Chapter 129

(4) Short Title: Control of VOC Emissions from Fiberglass Boat Manufacturing Materials

(5) Agency Contacts (List Telephone Number and Email Address):

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(6) Type of Rulemaking (check applicable box):

- ☒ Proposed Regulation
- ☐ Final Regulation
- ☐ Final Omitted Regulation
- ☐ Emergency Certification Regulation
- ☐ Certification by the Governor
- ☐ Certification by the Attorney General

(7) Briefly explain the regulation in clear and nontechnical language. (100 words or less)

The proposed rulemaking would amend Chapter 129 (relating to standards for sources) to add § 129.74 (relating to control of VOC emissions from fiberglass boat manufacturing materials) to adopt reasonably available control technology (RACT) requirements and RACT emission limitations for stationary sources of volatile organic compound (VOC) emissions from fiberglass boat manufacturing materials including open molding resin, gel coat and cleaning materials.

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 (NOx) 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 (APCA) (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 APCA (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 fiberglass boat manufacturing materials are required under Federal law and will be reviewed and approved by the EPA if the provisions meet the RACT requirements of the CAA and its implementing regulations. The EPA defines RACT as "the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility." See *State Implementation Plans; General Preamble for Proposed Rulemaking on Approval of Plan Revisions for Nonattainment Areas—Supplement (on Control Techniques Guidelines)*, 44 FR 53761 (September 17, 1979).

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 the VOC emission limitations and other requirements of the EPA 2008 Fiberglass Boat Manufacturing Materials 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, NOx, 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 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 limits based on human health is called primary standards. Another set of limits intended to prevent environmental and property damage is called secondary standards. Of the six criteria air pollutants, high concentrations of ground-level ozone and particle pollution are the most widespread health and welfare threats. The EPA set 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 NOx 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 Control Techniques Guidelines (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 fiberglass boat manufacturing materials on its section 183(e) list and, in 2008, the EPA issued a CTG for this product category. See 60 FR 15264, 15267 (March 23, 1995) and 73 FR 58481; *Control Techniques Guidelines for Fiberglass Boat Manufacturing Materials*, EPA 453/R-08-004, Office of Air Quality Planning and Standards, EPA, September 2008. The Fiberglass Boat Manufacturing Materials 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 fiberglass boat manufacturing materials, which are covered by a 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 Fiberglass Boat Manufacturing Materials CTG would be substantially as effective as National regulations in reducing VOC emissions from the fiberglass boat manufacturing materials product category in ozone nonattainment areas. See 73 FR 58481.

The Department reviewed the recommendations included in the 2008 Fiberglass Boat Manufacturing Materials CTG for their applicability to the ground-level ozone reduction measures necessary for this Commonwealth. The Bureau of Air Quality has determined that the measures provided in the Fiberglass Boat Manufacturing Materials CTG are appropriate to be implemented in this Commonwealth as RACT for this category.

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 Fiberglass Boat Manufacturing Materials 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 Fiberglass Boat Manufacturing Materials 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, though sanctions cannot be imposed until 18 months after the Administrator makes the determination, and sanctions cannot be imposed if a deficiency has been corrected within the 18-month period. 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 offsets, 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 fiberglass boat manufacturing materials.

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 preliminary 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 the following counties: Allegheny, Armstrong, Berks, Beaver, Bucks, Butler, Carbon, Chester, Delaware, Fayette, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia, Washington and Westmoreland. 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 from fiberglass boat manufacturing materials including open molding resin, gel coat and cleaning materials. VOCs are precursors for ground-level ozone formation. Ground-level ozone, a public health and welfare hazard, is not emitted directly by fiberglass boat manufacturing materials to the atmosphere, but is formed by a photochemical reaction between VOCs and NOx 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 for fiberglass boat manufacturing materials would benefit the health and welfare of the approximately 12 million residents 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 8-hour ozone standard of 0.075 ppm range from $8.3 billion to $18 billion on a National basis. See *Regulatory Impact Analysis, Final National Ambient Air Quality Standard for Ozone*, July 2011, http://epa.gov/glo/pdfs/201107_OMBdraft-OzoneRIA.pdf. 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 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; reduced growth and survivability of tree seedlings; and increased plant susceptibility to disease, pests, and other environmental stresses, including harsh weather. In long-lived species, these effects may become evident only after several years or even decades and have the potential for long-term adverse impacts on forest ecosystems. Ozone damage to the foliage of trees and other plants can decrease the aesthetic value of ornamental species used in residential landscaping, as well as the natural beauty of parks and recreation areas. Through deposition, ground-level ozone also contributes to pollution in the Chesapeake Bay. These effects can have adverse impacts including loss of species diversity and changes to habitat quality and water and nutrient cycles. High levels of ground-level ozone can also cause damage to buildings and synthetic fibers, including nylon, and reduced visibility on roadways and in natural areas.

The 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 seed production and visible injury to some leaf crops, including lettuce, spinach and tobacco, as well as visible injury to ornamental plants, including grass, flowers and shrubs. Other types of welfare loss may not be quantifiable, such as the reduced aesthetic value of trees growing in heavily visited parks.

Pennsylvania's 63,000 farm families are the stewards of more than 7.7 million acres of farmland. With $5.7

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 $57 billion to Pennsylvania's economy. (Source: Pennsylvania Department of Agriculture.) These families, farms, and related businesses benefit directly from the reduction of ground-level ozone air pollution concentrations.

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. Timber sales on state forest lands contribute to the $5 billion a year timber industry. Hundreds of concessions throughout the park system help complete the park experience for both state and out-of-state visitors. (Source: Pennsylvania Department of Conservation and Natural Resources.)

Further, 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). (Source: 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)

(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.

There are not Federal statutory or regulatory limits for VOC emissions from fiberglass boat manufacturing materials. In 2001, however, the EPA promulgated the National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing, 40 CFR part 63, subpart VVVV (relating to National emission standards for hazardous air pollutants for boat manufacturing) (2001 NESHAP), set forth at 40 CFR 63.5680—63.5779. The 2001 NESHAP established organic hazardous air pollutant (HAP) emissions limits based on low-HAP-content resins and gel coats and low-volatile-emitting (non-atomizing) resin application technology. Many HAPs are VOCs, but not all VOCs are HAPs. The 2001 NESHAP data, however, indicate that styrene and methyl methacrylate, which are both organic HAP and VOC, account for nearly all the VOC emissions, as well as HAP emissions, from fiberglass boat manufacturing facilities. Therefore, total HAP and VOC emissions from fiberglass boat manufacturing facilities are nearly equal.

When developing the VOC emission reduction RACT measures included in its Fiberglass Boat Manufacturing Materials CTG, the EPA took into account the HAP emission reduction measures of the 2001 NESHAP for the boat manufacturing industry. The requirements of the 2001 NESHAP apply to

"major sources" of HAP from boat manufacturing operations. For the purpose of regulating HAP, 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) of any single listed HAP or 25 tpy of any combination of HAPs. See section 112(a)(1) of the CAA (42 U.S.C.A. § 7412(a)(1)); see also 61 FR 27133 (May 30, 1996). The Federal recommendations for control of VOC emissions included in the Fiberglass Boat Manufacturing Materials CTG are based on the HAP content and emission rate limits for open molding resin, gel coat and cleaning materials and other requirements set forth in the 2001 NESHAP for boat manufacturing.

This proposed rulemaking is designed to adopt the standards and recommendations in the 2008 Fiberglass Boat Manufacturing Materials CTG to meet the requirements of CAA sections 172(c)(1), 182(b)(2) and 184(b)(1)(B). The proposed rulemaking would apply the standards and recommendations of the CTG across this entire Commonwealth, as required by CAA section 184(b)(1)(B). The VOC content and emission rate limitations and other requirements of the proposed rulemaking would not be more stringent than Federal standards.

(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 Maine and New Hampshire, both of which are members of the OTR as is Pennsylvania (www.otcair.org). This proposed rulemaking is also similar in many respects to the regulation adopted by Ohio, which is not a member of the OTR. The proposed rulemaking would have no effect on Pennsylvania's ability to compete with other states that have fiberglass boat manufacturing operations.

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

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

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

The proposed rulemaking was discussed with the Air Quality Technical Advisory Committee (AQTAC) on December 12, 2013. The AQTAC voted unanimously to concur with the Department's recommendation to forward the proposed rulemaking to the Board for consideration. The proposed rulemaking was discussed with the Small Business Compliance Advisory Committee (SBCAC) on April 23, 2014. The SBCAC also voted unanimously to concur with the Department's recommendation to forward the proposed rulemaking to the Board for consideration. The proposed rulemaking was discussed with the Citizens Advisory Council (CAC) Policy and Regulatory Oversight (PRO) Committee on March 12, 2014. On the recommendation of the PRO Committee of the CAC, on March 18, 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?

This proposed rulemaking would apply, at a minimum, to the owner and operator of one known Title V facility in this Commonwealth. The facility, VEC Technology, LLC, located at 639 Keystone Rd, Greenville PA 16125, is a major source of HAP regulated under the 2001 NESHAP. (Please see response to question (11) for discussion of major sources of HAPs.) The Department anticipates that the affected owner of the facility would demonstrate compliance with the proposed measures to reduce VOC emissions because this facility is already subject to the 2001 NESHAP HAP emission control requirements. These NESHAP provisions are applicable requirements in the Federally-enforceable Title V permit issued by the Department to the owner and operator on January 23, 2008. Therefore, there would be no additional compliance costs to the owner and operator of this source from implementation of this proposed rulemaking. A review of the U.S. Small Business Administration's (SBA) Small Business Size Regulations under 13 CFR Chapter 1, Part 121 (relating to Small Business Size Regulations) indicates that VEC Technology, LLC, is a small business.

It is possible that the proposed rulemaking would also apply to owners and operators of other fiberglass boat manufacturing facilities that have not yet been identified, because the HAP emission reduction measures of the 2001 NESHAP do not apply to the owners and operators of area sources (that is, sources that emit less than 10 tpy of any single listed HAP or less than 25 tpy of any combination of HAPs). Owners and operators of lower-HAP-emitting area source fiberglass boat manufacturing facilities are, therefore, not currently required to implement the HAP emission reduction measures provided in the 2001 NESHAP and would not have been issued a Title V permit by the Department incorporating these measures as applicable requirements. The VOC emission reduction measures included in the 2008 Fiberglass Boat Manufacturing Materials CTG are based on the 2001 NESHAP HAP emission reduction measures. While a fiberglass boat manufacturing facility area source of HAP may not meet the threshold for implementing the HAP emission reduction measures of the 2001 NESHAP, the facility may meet the proposed applicability threshold limits for implementing the proposed rulemaking measures to control VOC emissions. If the proposed rulemaking would apply to the owners and operators of other fiberglass boat manufacturing facilities that have not yet been identified, they would likely also be small businesses.

The Department's assessment of how many owners and operators of facilities would be subject to the proposed rulemaking resulted from reviewing the Department's air quality permits databases and the U.S. SBA Small Business Size Regulations under 13 CFR Chapter 1, Part 121, as well as information obtained from the Pennsylvania Small Business Development Center's Environmental Management Assistance Program (EMAP). A search of the Department's "Environmental Facility Application Compliance Tracking System" (eFACTS) database and Air Information Management System (AIMS) database revealed the owner and operator of one facility in this Commonwealth as having a permit issued by the Department that includes provisions for control of HAP emissions from fiberglass boat manufacturing processes. However, eFACTS and AIMS do not provide an exhaustive list of all owners or operators of fiberglass boat manufacturing facilities in this Commonwealth, but only those with which the Department has had contact and for which the Department has a reason to input data; these are usually the largest emitters. The Federal Small Business Size Regulations specify that a company with the "boat building" North American Industry Classification System (NAICS) code is considered to be a "small business" if it has 500 or fewer employees. Department staff contacted the owner or operator of all businesses that appeared on a list of small Pennsylvania businesses generated under the "boat building" NAICS code obtained from the Pennsylvania Small Business Development Center EMAP. The owners or operators of these businesses had identified themselves as being connected with boat manufacturing, but none of them made the types of components covered by the proposed rulemaking.

The owner and operator of a facility that would be subject to the proposed rulemaking would likely incur

little, if any, cost to implement the requirements of the proposed rulemaking. The proposed rulemaking provides as one compliance option the use of individually-compliant open molding resin and gel coat materials in subsection (f)(1), and requires the use of compliant cleaning solvents in subsection (l). Open molding resin, gel coat and cleaning materials that are compliant with the HAP content limits and HAP emission rate limits set forth in the 2001 NESHAP and with the proposed rulemaking VOC content limits and VOC emission rate limits set forth in the tables under subsections (a) and (f) are readily available to the owners and operators of all sizes of facilities. The VOC content limits and VOC emission rate limits for individually-compliant production resins and tooling resins also depend on the application method used to apply the resin. Production and tooling resins may be applied using either atomizing or non-atomizing methods. Non-atomizing resin application methods reduce the amount and rate of emissions of VOC from the resins compared to application with an atomizing method, thereby enabling use of higher VOC-content resins. Non-atomizing application technologies include bucket and brush application, pressure fed resin rollers, flow converters, fabric impregnators, and fluid impingement technology. A production or tooling resin can contain a higher amount of VOC but still emit less VOC during application if a non-atomizing technology is used rather than an atomizing technology. The industry has experienced a shift to non-atomizing resin application methods that are required to comply with the 2001 NESHAP HAP emission reduction requirements and which are included in the proposed rulemaking. This shift has occurred at all sizes of facilities across the U.S. because of the productivity and economic benefits of using non-atomizing methods over conventional atomizing methods.

As a second option, the proposed rulemaking would provide flexibility by allowing compliance through averaging the VOC emission rates of open molding resin and gel coat materials in subsection (f)(2) in addition to choice of application technology. A third compliance option, the use of a VOC emissions capture system and add-on air pollution control device, is provided in subsection (f)(3). However, because of the wide availability and lower cost (compared to add-on controls) of compliant VOC content materials and alternative application methods, compliant materials and select application methods are generally used to reduce VOC emissions from fiberglass boat manufacturing facilities.

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.

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.

This proposed rulemaking would apply to the owner and operator of one known Title V facility in this Commonwealth. The facility is VEC Technology, LLC, located at 639 Keystone Rd, Greenville PA 16125. A review of the Federal Small Business Size Regulations under 13 CFR Chapter 1, Part 121 indicates that VEC Technology, LLC, is a small business.

It is possible that the proposed rulemaking would also apply to owners and operators of other fiberglass boat manufacturing facilities that have not yet been identified. Please see response to question (15) for further explanation.

(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.

This proposed rulemaking would apply to the owner and operator of one known Title V facility in this Commonwealth, which is a major source of HAP regulated under the 2001 NESHAP. The facility is VEC Technology, LLC, located at 639 Keystone Rd, Greenville PA 16125. The Department anticipates that the affected owner of the facility would demonstrate compliance with the proposed measures to reduce VOC emissions because this facility is already subject to the 2001 NESHAP HAP emission control requirements. These applicable requirements are incorporated in the Federally-enforceable Title V permit issued by the Department to the owner and operator on January 23, 2008. The VOC emission reduction measures included in the 2008 Fiberglass Boat Manufacturing Materials CTG are based on the 2001 NESHAP HAP emission reduction measures. Therefore, the Department does not anticipate that there would be additional compliance costs to the owner and operator of this source from implementation of the VOC emission reduction measures of this proposed rulemaking. A review of the Federal Small Business Size Regulations under 13 CFR Chapter 1, Part 121, indicates that VEC Technology, LLC, is a small business.

It is possible that the proposed rulemaking would also apply to the owners and operators of other fiberglass boat manufacturing facilities that have not yet been identified because they are not subject to the HAP emission reduction measures of the 2001 NESHAP and would not have been issued a Title V permit by the Department incorporating these measures as applicable requirements. If the proposed rulemaking would apply to the owners and operators of other fiberglass boat manufacturing facilities that have not yet been identified, they would likely also be small businesses.

The owner and operator of a facility that would be subject to the proposed rulemaking, regardless of whether the facility is or is not subject to the 2001 NESHAP, would likely incur little, if any, cost to implement the requirements of the proposed rulemaking. The proposed rulemaking provides as one compliance option the use of individually-compliant open molding resin and gel coat materials and the use of compliant cleaning solvents. Open molding resin, gel coat and cleaning materials that are compliant with the 2001 NESHAP HAP content and emission rate limits and with the proposed rulemaking VOC content and emission rate limits are readily available to the owners and operators of all sizes of facilities. The proposed rulemaking would also provide flexibility in compliance through the option of VOC emissions averaging of open molding resin and gel coat materials or the use of a VOC emissions capture system and add-on air pollution control device. Because of the wide availability and lower cost (compared to add-on controls) of compliant VOC content materials and alternative application methods, compliant materials and select application methods are generally used to reduce VOC emissions from fiberglass boat manufacturing facilities. Please see response to question (15) for further description of the compliance options.

This proposed rulemaking would help ensure that the owners and operators of regulated facilities, farms and agricultural enterprises, hardwoods and timber industries and tourism-related businesses, and residents of labor communities, citizens and the environment of this Commonwealth experience the benefits of improved ground-level ozone air quality and groundwater quality through reduced emissions of VOCs and HAPs from fiberglass boat manufacturing materials, including open molding resin, gel coat and cleaning materials. Although the proposed rulemaking is designed primarily to address ground-level ozone air quality, the reformulation or substitution of low-VOC content open molding resin and gel coat materials, and low-VOC content or low vapor pressure cleaning materials, to meet the VOC content and emission rate limits applicable to users may also result in reduction of HAP emissions, which are also a serious health threat. The reduced levels of high VOC- 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 proposed rulemaking may create economic opportunities for VOC emission control technology innovators, manufacturers, and distributors through an increased demand for new or improved equipment. In addition, the owners and operators of regulated facilities that choose to comply by using a VOC emissions capture system and add-on air pollution control device may be required to install and operate an emissions monitoring system or equipment necessary for an emissions monitoring method in order to comply with the rulemaking, thereby creating an economic opportunity for the emissions monitoring industry.

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

Ground-level ozone is a highly reactive gas, which at sufficiently high concentrations can produce a wide variety of harmful effects. At elevated concentrations, ground-level ozone can adversely affect human health, animal health, vegetation, materials, economic values and personal comfort and well-being. It can cause damage to important food crops, forests, livestock and wildlife.

Repeated exposure to ground-level ozone air pollution may cause a variety of adverse health effects for both healthy people and those with existing conditions, including difficulty in breathing, chest pains, coughing, nausea, throat irritation, and congestion. It can worsen bronchitis, heart disease, emphysema and asthma and reduce lung capacity. Asthma is a significant and growing threat to children and adults. High levels of ground-level ozone affect animals in ways similar to humans. In addition to causing adverse human and animal health effects, the EPA has concluded that high concentrations of ground-level ozone affects vegetation and ecosystems, leading to reductions in agricultural crop and commercial forest yields by destroying chlorophyll; reduced growth and survivability of tree seedlings; and increased plant susceptibility to disease, pests, and other environmental stresses, including harsh weather. In long-lived species, these effects may become evident only after several years or even decades and have the potential for long-term adverse impacts on forest ecosystems. Ozone damage to the foliage of trees and other plants can decrease the aesthetic value of ornamental species used in residential landscaping, as well as the natural beauty of parks and recreation areas. Through deposition, ground-level ozone also contributes to pollution in the Chesapeake Bay. These effects can have adverse impacts including loss of species diversity and changes to habitat quality and water and nutrient cycles. High levels of ground-level ozone can also cause damage to buildings and synthetic fibers, including nylon, and reduced visibility on roadways and in natural areas.

The economic value of some welfare losses due to ozone can be calculated, such as crop yield loss from both reduced seed production and visible injury to some leaf crops, including lettuce, spinach and tobacco, as well as visible injury to ornamental plants, including grass, flowers and shrubs. Other types of welfare loss may not be quantifiable, such as the reduced aesthetic value of trees growing in heavily visited parks.

The EPA has estimated the monetized health benefits of attaining the NAAQS. For example, the EPA estimated that the monetized health benefits of attaining the 8-hour ozone standard of 0.075 ppm range from $8.3 billion to $18 billion on a National basis. See *Regulatory Impact Analysis, Final National Ambient Air Quality Standard for Ozone*, July 2011, http://epa.gov/glo/pdfs/201107_OMBdraft-OzoneRIA.pdf. 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 and the owners and operators of businesses and industries of attaining the NAAQS.

The owner and operator of a facility that would be subject to the proposed rulemaking would likely incur

little, if any, cost to implement the requirements of the proposed rulemaking. Open molding resin, gel coat and cleaning materials that are compliant with the 2001 NESHAP HAP content and emission rate limits and with the proposed rulemaking VOC content and emission rate limits are readily available to the owners and operators of all sizes of facilities. The VOC content and emission rate limits for production resins and tooling resins also depend on the application method used to apply the resin. Production and tooling resins may be applied using either atomizing or non-atomizing methods. Non-atomizing resin application methods reduce the emissions of VOC from the resins compared to application with an atomizing method, thereby enabling use of higher VOC-content resins. A production or tooling resin can contain a higher amount of VOC but still emit less VOC during application if a non-atomizing technology is used rather than an atomizing technology. The industry has experienced a shift to non-atomizing resin application methods that are required to comply with the 2001 NESHAP HAP emission reduction measures. This shift has occurred at all sizes of facilities across the U.S. because of the productivity and economic benefits of using non-atomizing methods over conventional atomizing methods. While this is not a direct benefit of this proposed rulemaking, it shows a beneficial correlative downward trend in VOC emissions from fiberglass boat manufacturers.

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 through reduced emissions of ozone precursors from fiberglass boat manufacturing materials far outweigh the negligible costs that would be incurred by the regulated industry.

(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.

This proposed rulemaking would apply to the owner and operator of one known Title V facility in this Commonwealth that is a major source of HAP regulated under the 2001 NESHAP. The facility is VEC Technology, LLC, located at 639 Keystone Rd, Greenville PA 16125. The Department anticipates that the affected owner of the facility would demonstrate compliance with the proposed measures to reduce VOC emissions because this facility is already subject to the 2001 NESHAP HAP emission control requirements, including recordkeeping requirements. These NESHAP provisions are applicable requirements in the Federally-enforceable Title V permit issued by the Department to the owner and operator on January 23, 2008. The VOC emission reduction measures included in the 2008 Fiberglass Boat Manufacturing Materials CTG are based on the 2001 NESHAP HAP emission reduction measures. Therefore, the Department anticipates that there would be no additional compliance costs to the owner and operator of this facility from implementation of this proposed rulemaking.

As discussed in response to question (15), above, it is possible that the proposed rulemaking would also apply to the owners and operators of other fiberglass boat manufacturing facilities that have not yet been identified.

The owner and operator of any facility subject to the proposed rulemaking would likely incur little, if any, cost to implement the requirements of the proposed rulemaking. Open molding resin, gel coat and cleaning materials that are compliant with the 2001 NESHAP HAP content and emission rate limits and with the proposed rulemaking VOC content and emission rate limits are readily available to the owners and operators of all sizes of facilities. The VOC content and emission rate limits for production resins and tooling resins also depend on the application method used to apply the resin. Production and tooling resins may be applied using either atomizing or non-atomizing methods. Non-atomizing resin application

methods reduce the emissions of VOC from the resins compared to application with an atomizing method, thereby enabling use of higher VOC-content resins. A production or tooling resin can contain a higher amount of VOC but still emit less VOC during application if a non-atomizing technology is used rather than an atomizing technology. The industry has experienced a shift to non-atomizing resin application methods that are required to comply with the 2001 NESHAP HAP emission reduction measures. This shift has occurred at all sizes of facilities across the U.S. because of the productivity and economic benefits of using non-atomizing methods over conventional atomizing methods.

If an owner or operator of a facility were to elect to comply by installing and operating a VOC emissions capture system and add-on air pollution control device, which is a compliance option in the proposed rulemaking, the owner or operator would experience costs. But it is unlikely that an owner or operator would choose this option, given the wide availability and lower cost of compliant VOC content materials and alternative application methods.

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 fiberglass boat manufacturing facilities have been identified as being owned by local governments. The Department estimates that there would be no costs 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 fiberglass boat manufacturing facilities have been identified as being owned by state government. The Department estimates that there would be no costs 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.

(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 13/14	FY+1 Year 14/15	FY+2 Year 15/16	FY+3 Year 16/17	FY+4 Year 17/18	FY+5 Year 18/19
SAVINGS:	**$**	**$**	**$**	**$**	**$**	**$**
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 Savings	0.00	0.00	0.00	0.00	0.00	0.00
COSTS:	**$**	**$**	**$**	**$**	**$**	**$**
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 Costs	0.00	0.00	0.00	0.00	0.00	0.00
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 (10/11)	FY-2 (11/12)	FY-1 (12/13)	Current FY (13/14)
Environmental Program Management (161-10382)	$28,881,000	$27,755,000	$24,965,000	$26,297,000
Clean Air Fund Major Emission Facilities (215-20077)	$20,565,000	$20,055,000	$18,464,000	$21,330,000
Clean Air Fund Mobile and Area Facilities (233-20084)	$5,620,000	$2,710,000	$10,198,000	$8,610,000

(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.

This proposed rulemaking would apply to the owner and operator of one known Title V facility in this Commonwealth. The facility is VEC Technology, LLC, located at 639 Keystone Rd, Greenville PA 16125. A review of the Federal Small Business Size Regulations under 13 CFR Chapter 1 Part 121 indicates that VEC Technology, LLC, is a small business.

It is possible that the proposed rulemaking would also apply to owners and operators of other fiberglass boat manufacturing facilities that have not yet been identified. If the proposed rulemaking would apply to the owners or operators of other fiberglass boat manufacturing facilities, they would likely also be small businesses. It is unlikely, however, that there will be additional facilities subject to the proposed rulemaking.

The Department's assessment of how many owners and operators of facilities would be subject to the proposed rulemaking resulted from reviewing the Department's air quality permits databases and the Federal Small Business Size Regulations under 13 CFR Chapter 1, Part 121, as well as information obtained from the Pennsylvania Small Business Development Center's Environmental Management Assistance Program (EMAP). A search of the Department's "Environmental Facility Application Compliance Tracking System" (eFACTS) database and Air Information Management System (AIMS) database revealed the owner and operator of one facility in this Commonwealth as having a permit issued by the Department that includes provisions for fiberglass boat manufacturing. However, eFACTS and AIMS do not provide an exhaustive list of all fiberglass boat manufacturing facilities in this Commonwealth, but only those with which the Department has had contact and for which the Department has a reason to input data; these are usually the largest emitters. The Federal Small Business Size Regulations specify that a company with the "boat building" NAICS code is considered to be a "small business" if it has 500 or fewer employees. Department staff contacted the owner or operator of all businesses that appeared on a list of small Pennsylvania businesses generated under the "boat building" NAICS code obtained from the Pennsylvania Small Business Development Center EMAP. The owners or operators of these businesses had identified themselves as being connected with boat manufacturing, but none of them made the types of components covered by the proposed rulemaking

Therefore, the Department anticipates that the proposed rulemaking would apply to the owner and operator of only one facility, which is also classified as a small business.

(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 Department expects the owner and operator of only one facility in this Commonwealth to be subject to the proposed rulemaking. Operations at this facility are already regulated under a Federally-enforceable Title V permit issued to the owner and operator on January 23, 2008, which contains requirements similar to those in the proposed rulemaking. The facility is VEC Technology, LLC, located at 639 Keystone Rd, Greenville PA 16125. The owner or operator of this facility is already complying with the applicable HAP emission reduction requirements set forth in the Federally-enforceable Title V permit issued by the Department to the owner and operator on January 23, 2008. There are no further recordkeeping, legal, accounting or consulting procedures established in the proposed rulemaking beyond what this facility's Title V permit includes. The owner or operator of this facility would not need to do anything more than it already does. The Department estimates that there will be no costs or savings to the owner or operator of

this facility from the proposed rulemaking.

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

The owner and operator of a fiberglass boat manufacturing facility that would be subject to the proposed rulemaking would likely incur little, if any, cost to implement the requirements of the proposed rulemaking. The proposed rulemaking provides as one compliance option the use of individually-compliant open molding resin and gel coat materials and the use of compliant cleaning solvents. Open molding resin, gel coat and cleaning materials that are compliant with the proposed rulemaking VOC content and emission rate limits are readily available to the owners and operators of all sizes of facilities. The VOC content limits and emission rate limits for production resins and tooling resins also depend on the application method used to apply the resin. Production and tooling resins may be applied using either atomizing or non-atomizing methods. Non-atomizing resin application methods reduce the emissions of VOC from the resins compared to application with an atomizing method, thereby enabling use of higher VOC-content resins. A production or tooling resin can contain a higher amount of VOC but still emit less VOC during application if a non-atomizing technology is used rather than an atomizing technology. The industry has experienced a shift to non-atomizing resin application methods that are required to comply with the 2001 NESHAP HAP emission reduction measures. This shift has occurred at all sizes of facilities across the U.S. because of the productivity and economic benefits of using non-atomizing methods over conventional atomizing methods.

As a second compliance option, the proposed rulemaking would provide flexibility by allowing compliance through averaging of VOC emission rates of open molding resin and gel coat materials. A third compliance option, the use of a VOC emissions capture system and add-on air pollution control device, is also provided. However, because of the wide availability and lower cost (compared to add-on controls) of compliant VOC content materials and alternative application methods, compliant materials and select application methods are generally used to reduce VOC emissions from fiberglass boat manufacturing facilities.

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

There are no alternative regulatory provisions available. In accordance with sections 172(c)(1), 182(b)(2)(A) and 184(b)(1)(B) of the CAA, the proposed rulemaking establishes the VOC emission limitations and other requirements of the EPA 2008 Fiberglass Boat Manufacturing Materials 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 fiberglass boat manufacturing facility subject to the proposed rulemaking would not be affected by the proposed rulemaking. For those that might be owners or operators of a fiberglass boat manufacturing facility subject to the proposed rulemaking, no special provisions are necessary. As explained above in response to question (15), compliant VOC materials are already readily available and widely in use.

(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 RACT mandate. In accordance with sections 172(c)(1), 182(b)(2)(A) and 184(b)(1)(B) of the CAA, the proposed rulemaking establishes the VOC emission limitations and other requirements of the EPA 2008 Fiberglass Boat Manufacturing Materials 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).

The owner and operator of a facility that would be subject to the proposed rulemaking would likely incur little, if any, additional cost to implement the requirements of the proposed rulemaking. The proposed rulemaking provides as one compliance option the use of individually-compliant open molding resin and gel coat materials and the use of compliant cleaning solvents. Open molding resin, gel coat and cleaning materials that are compliant with the proposed rulemaking VOC content and emission rate limits are readily available to the owners and operators of all sizes of facilities. The VOC content limits and emission rate limits for production resins and tooling resins also depend on the application method used to apply the resin. Production and tooling resins may be applied using either atomizing or non-atomizing methods. Non-atomizing resin application methods reduce the emissions of VOC from the resins compared to application with an atomizing method, thereby enabling use of a higher VOC-content resin. A production or tooling resin can contain a higher amount of VOC but still emit less VOC during application if a non-atomizing technology is used rather than an atomizing technology. The industry has experienced a shift to non-atomizing resin application methods that are required to comply with the 2001 NESHAP HAP emission reduction measures. This shift has occurred at all sizes of facilities across the U.S. because of the productivity and economic benefits of using non-atomizing methods over conventional atomizing methods.

As a second option, the proposed rulemaking would provide flexibility by allowing compliance through averaging of VOC emission rates of open molding resin and gel coat materials. A third compliance option, the use of a VOC emissions capture system and add-on air pollution control device, is also provided. However, because of the wide availability and lower cost (compared to add-on controls) of compliant VOC content materials and alternative application methods, compliant materials and select application methods are generally used to reduce VOC emissions from fiberglass boat manufacturing facilities.

(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.

No adverse impact or additional cost is expected for the owners and operators of small businesses. Less stringent compliance requirements are not available, as the proposed rulemaking is and must be designed to achieve the "reasonably available control technology" (RACT) requirements of the CAA. The EPA set forth its recommendations for RACT for this industry in its *Control Techniques Guidelines for Fiberglass Boat Manufacturing Materials*, EPA 453/R-08-004, Office of Air Quality Planning and Standards, EPA, September 2008. Open molding resin, gel coat and cleaning materials that are compliant with the proposed rulemaking VOC content and emission rate limits are readily available to the owners and operators of all sizes of facilities and likely already being used. Non-atomizing application methods are likely also being used due to the productivity and economic benefits of these methods compared to atomizing methods. The

Department has proposed the least stringent recordkeeping and reporting requirements available that would ensure compliance with the proposed rulemaking. The proposed recordkeeping requirements are minimal and reporting is only necessary upon Department request.

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

No adverse impact or additional cost is expected for the owners and operators of small businesses. As explained in response to question (9), above, the proposed rulemaking is overdue to the EPA for review and approval as a revision to the Pennsylvania SIP. Further delay of implementation would not be advisable as the Commonwealth is at risk of sanctions imposed by the Administrator of the EPA under section 179 of the CAA, nor is it needed. The owner and operator of the one known facility, VEC Technology, LLC, that would be subject to the proposed rulemaking VOC emission reduction requirements are already complying with these requirements. The proposed rulemaking VOC emission reduction requirements are similar to, and no more stringent than, the applicable HAP emission reduction requirements already incorporated in the Federally-enforceable Title V permit issued by the Department to the owner and operator of this facility on January 23, 2008. A review of the Federal Small Business Size Regulations under 13 CFR Chapter 1, Part 121 indicates that VEC Technology, LLC, is a small business.

If the proposed rulemaking applies to the owners and operators of fiberglass boat manufacturing facilities that have not yet been identified, whether or not they are small businesses, these owners and operators are also likely in compliance. Open molding resin, gel coat and cleaning materials that are compliant with the proposed rulemaking VOC content and emission rate limits are, and have been, readily available to the owners and operators of all sizes of facilities and likely already being used. Non-atomizing application methods are likely also being used due to the productivity and economic benefits of these methods compared to atomizing application methods.

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

No adverse impact or additional cost is expected for the owners and operators of small businesses. The compliance options set forth in the proposed rulemaking should allow the owner or operator of any small business that would be subject to the proposed rulemaking to find a method of compliance appropriate to its operation. Open molding resin, gel coat and cleaning materials that are compliant with the proposed rulemaking VOC content and emission rate limits are readily available to the owners and operators of all sizes of facilities. Non-atomizing application methods are widely used due to the productivity and economic benefits of these methods compared to atomizing application methods. The proposed recordkeeping requirements are minimal and reporting is only necessary upon Department request.

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

No adverse impact or additional cost is expected for the regulated community to comply with the requirements of the proposed rulemaking. Open molding resin, gel coat and cleaning materials that are compliant with the proposed rulemaking VOC content and emission rate limits are readily available to the owners and operators of all sizes of facilities. Non-atomizing application methods are widely used due to the productivity and economic benefits of these methods compared to atomizing application methods.

The proposed rulemaking would provide flexibility in compliance with two options: 1) The use of VOC emission rates averaging of compliant and non-compliant open molding resin and gel coat materials; and 2)

The use of a VOC emissions capture system and add-on air pollution control device. The compliance options set forth in the proposed rulemaking should allow the owner or operator of any small business that would be subject to the proposed rulemaking to find a method of compliance appropriate to its operation. However, because of the wide availability and lower cost (compared to add-on controls) of compliant VOC content materials and alternative application methods, compliant materials and select application methods are likely to be used to reduce VOC emissions from fiberglass boat manufacturing facilities.

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

RACT regulations are a Federal CAA requirement, applicable 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 manufacturing 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.

This proposed rulemaking would apply to the owner and operator of one known Title V facility in this Commonwealth. The facility is VEC Technology, LLC, located at 639 Keystone Rd, Greenville PA 16125. A review of the Federal Small Business Size Regulations under 13 CFR Chapter 1, Part 121, indicates that VEC Technology, LLC, is a small business. Fiberglass boat manufacturing operations at this facility are already subject to applicable HAP emission reduction requirements incorporated in the Federally-enforceable Title V permit issued to the owner and operator by the Department on January 23, 2008. The Title V permit contains emission reduction requirements similar to those in the proposed rulemaking. The owner or operator of this facility has the technical sophistication to comply, and is already complying, with the applicable requirements incorporated in the Title V permit and would need to do nothing more to comply with the requirements of the proposed rulemaking.

If the proposed rulemaking would apply to the owners and operators of fiberglass boat manufacturing facilities that have not yet been identified, whether or not they are small businesses, these owners and operators are also likely in compliance. Open molding resin, gel coat and cleaning materials that are compliant with the proposed rulemaking VOC content and emission rate limits are, and have been, readily available to the owners and operators of all sizes of facilities and likely already being used. Non-atomizing application methods are likely also being used due to the productivity and economic benefits of these methods compared to atomizing application methods.

(28) If data is the basis for this regulation, please provide a description of the data, explain <u>in detail</u> 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.

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

Control Techniques Guidelines for Fiberglass Boat Manufacturing Materials, EPA 453/R-08-004, Office of Air Quality Planning and Standards, EPA, September 2008. The Fiberglass Boat Manufacturing Materials CTG is available on the EPA website at:

www.epa.gov/airquality/ozonepollution/SIPToolkit/ctgs.html.

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).

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.

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

National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing, 40 CFR part 63, subpart VVVV (relating to National emission standards for hazardous air pollutants for boat manufacturing) (2001 NESHAP), set forth at 40 CFR 63.5680—63.5779.

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

A. The date by which the agency must receive public comments: 3rd Quarter 2014

B. The date or dates on which public meetings or hearings will be held: 3rd Quarter 2014

C. The expected date of promulgation of the proposed regulation as a final-form regulation: 3rd Quarter 2015

D. The expected effective date of the final-form regulation: Date of publication

E. The date by which compliance with the final-form regulation will be required: Date of publication

F. The date by which required permits, licenses or other approvals must be obtained: NA

(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.