

<h1 style="margin: 0;">Regulatory Analysis Form</h1> <p style="margin: 0;">(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: #7-485</p>		<p>IRRC Number:</p>
<p>(3) PA Code Cite: 25 Pa. Code Chapters 121 and 129</p>		
<p>(4) Short Title: Additional RACT Requirements for Major Sources of NO_x and VOCs</p>		
<p>(5) Agency Contacts (List Telephone Number and Email Address):</p> <p>Primary Contact: Michele Tate, 783-8727, mtate@pa.gov Secondary Contact: Hayley Book, 783-8727, hbook@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 adopt presumptive reasonably available control technology (RACT) requirements and RACT emission limitations for major stationary sources of oxides of nitrogen (NO_x) and volatile organic compound (VOC) emissions in existence on or before July 20, 2012. In addition, the proposed rulemaking would amend Chapter 121 (relating to general) to revise two existing definitions and add one definition in § 121.1 (relating to definitions) to support the amendments to Chapter 129. Emissions of NO_x and VOCs are precursors to the formation of ground-level ozone, a criteria air pollutant. High concentrations of ground-level ozone air pollution are a serious threat to public health and welfare. This rulemaking is reasonably required to attain and maintain the health- and welfare-based 8-hour ozone National Ambient Air Quality Standards (NAAQS) in this Commonwealth and to satisfy related Clean Air Act (CAA) (42 U.S.C.A. §§ 7401—7671q) requirements.</p> <p>If published in the <i>Pennsylvania Bulletin</i> as a final rulemaking, the final-form regulation will be submitted to the United States Environmental Protection Agency (EPA) as a revision to the State Implementation Plan (SIP) and as an amendment to the Title V Program Approval codified in 40 CFR Part 70, Appendix A (relating to approval status of state and local operating permits programs).</p>		
<p>(8) State the statutory authority for the regulation. Include <u>specific</u> statutory citation.</p> <p>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</p>		

Commonwealth; and section 5(a)(8), which grants the Board the authority to adopt rules and regulations designed to implement the provisions of the CAA (42 U.S.C.A. §§ 7401—7671q).

(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. The proposed rulemaking is mandated by Federal law. 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 the environment. 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 172(c)(1) of the CAA (42 U.S.C.A. § 7502(c)(1)) provides that SIPs for nonattainment areas must include “reasonably available control measures,” including RACT, for sources of emissions. Further, 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 to enforce the NAAQS or revision to the NAAQS promulgated under Section 109(b) of the CAA. Therefore the re-evaluation of what constitutes RACT for affected sources must be fulfilled each time the EPA promulgates a new NAAQS as was the case in 1997 for the 8-hour ozone standard or revises a NAAQS as was the case in 2008 for the 8-hour ozone standard. State regulations to control emissions of NO_x and VOCs from major stationary sources will be reviewed by the EPA to determine if the provisions meet the RACT requirements of the CAA and its implementing regulations designed to attain and maintain the ozone NAAQS.

In 2004, the EPA designated 37 counties in this Commonwealth as 8-hour ozone nonattainment areas for the 1997 8-hour ozone NAAQS. Except for the five-county Philadelphia area, all areas monitored attainment with the standard. The EPA granted a 1-year extension of the attainment date for the Philadelphia area, where attainment was subsequently measured. However, based on preliminary ozone concentrations for the 2012 ozone season, the Philadelphia area will no longer monitor attainment of the 1997 8-hour ozone standard. Consequently, the Department must ensure that the 1997 8-hour 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.

On May 21, 2012, the EPA finalized designations and classifications for the 2008 8-hour ozone NAAQS. See FR 30160 (May 21, 2013). The following nonattainment areas were classified as “marginal” ozone nonattainment areas: Allentown-Bethlehem-Easton (Carbon, Lehigh and Northampton), Lancaster (Lancaster County), Philadelphia-Wilmington-Atlantic City (the Pennsylvania areas include Bucks, Chester, Delaware, Montgomery and Philadelphia counties), Pittsburgh-Beaver Valley (Allegheny, Armstrong, Beaver, Butler, Fayette, Washington and Westmoreland counties) and the Reading area (Berks County); the remainder of the Commonwealth was designated “Unclassifiable/Attainment.” See 77 FR 30143, 30144. Therefore, the Commonwealth must submit a SIP revision to demonstrate how it will attain and maintain the 2008 8-hour ozone standard in the nonattainment areas. However, the entire Commonwealth is treated as a “moderate” ozone nonattainment area because Pennsylvania is included in the Ozone Transport Region, established by operation of law under Sections 184 and 176A of the CAA (42 U.S.C.A. §§ 7511c and § 7506a). Consequently, the RACT requirements, which apply statewide in Pennsylvania for major stationary sources of NO_x and VOCs, must be re-evaluated.

Section 172(c)(1) of the CAA (42 U.S.C.A. § 7502(c)(1)) provides that a SIP for an ozone nonattainment area must include “reasonably available control measures,” including RACT requirements, for major sources of NO_x and VOC emissions located in the ozone nonattainment area. Emissions of NO_x and

VOCs are precursors to the formation of ground-level ozone air pollution. High concentrations of ground-level ozone air pollution are a serious public health and welfare threat.

Section 182(b)(2) of the CAA (42 U.S.C.A. § 7511a(b)(2)) provides that for moderate ozone nonattainment areas, a state must revise its SIP 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; sources of VOC emissions covered by a CTG issued prior to November 15, 1990; and all other major stationary sources of VOC emissions located in the area.

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 this section. 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 (42 U.S.C.A. § 7511c(b)(1)(B)) requires that a state in the OTR submit a SIP revision requiring implementation of RACT for all sources of VOC emissions in the state covered by a specific CTG. Section 184(b)(2) (42 U.S.C.A. § 7511c(b)(2)) of the CAA establishes that a major stationary source located in a state included in the OTR is subject to the requirements that would be applicable to the major stationary source if it were located in an area classified as a moderate ozone nonattainment area.

Section 182(f) of the CAA (42 U.S.C.A. § 7511a(f)) provides that for areas designated as moderate ozone nonattainment areas or above, a state is required to adopt RACT requirements for all major stationary facilities that emit the ozone precursor NO_x, in addition to RACT requirements for VOC emissions. The Commonwealth is therefore required to implement RACT requirements statewide for major stationary sources of NO_x and VOCs as part of a Federally-approvable SIP for attaining and maintaining the 1997 and 2008 8-hour ozone NAAQS. These sources include combustion units, municipal solid waste landfills, municipal waste combustors, and other sources that are not regulated elsewhere in Chapter 129 through implementation of CTG recommendations for a source category.

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.

Section 179 of the CAA (42 U.S.C.A. § 7509) authorizes the EPA to use two types of sanctions: 1) withholding of certain Federal highway funds; and 2) imposing what are called "2:1 offsets" on new or modified sources of emissions. 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 sanctions. 40 CFR 52.31. The Commonwealth receives approximately \$1.6 billion in Federal transportation funding annually.

(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.

This proposed rulemaking establishes presumptive RACT requirements and RACT emission limitations for the owners and operators of affected sources at facilities that are major NO_x emitting or major VOC emitting facilities, or both, not regulated elsewhere in Chapter 129. The requirement to adopt and implement RACT regulations is Federally mandated. Section 172(c)(1) of the CAA (42 U.S.C.A. §

7502(c)(1) provides that a SIP for an ozone nonattainment area must include “reasonably available control measures,” including RACT requirements, for major sources of NO_x and VOC emissions located in the ozone nonattainment area. NO_x and VOC emissions from sources including combustion units, boilers, process heaters, turbines, stationary internal combustion engines, municipal solid waste landfills, and municipal waste combustors contribute to the formation of ground-level ozone air pollution. Ground-level ozone is not emitted directly into the atmosphere, but is formed by photochemical reactions between NO_x and VOCs 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 NO_x and VOC control measures for the affected major sources 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 NO_x and VOCs, which are precursors to the 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 environments. The measures in the proposed rulemaking are reasonably required to attain and maintain the health-and welfare-based 8-hour ozone NAAQS in this Commonwealth 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 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://www.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 NAAQS.

In addition to causing adverse human and animal health effects, the EPA has concluded that 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.

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. 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)

The Department projects that the cost to the owner and operator of an affected source that would require installation of add-on control technology to comply with the proposed applicable presumptive RACT requirement or RACT emission limitation would be less than \$2,500.00 maximum per ton of NO_x emission reductions, no matter which source type and add-on control technology is considered, and very likely much less than \$2,500.00 per ton of NO_x emissions reduced. This cost is minimal compared to the monetized health benefits of attaining and maintaining the NAAQS and to the economic benefits

generated by the Commonwealth's agricultural and hardwoods industries.

(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.

No companion Federal regulations exist for the proposed rulemaking requirements; therefore there are no provisions in the proposed rulemaking that are more stringent than Federal standards.

The owners and operators of sources at certain facilities that would be subject to the proposed RACT requirements or emission limitations should be able to meet presumptive RACT standards that do not require the installation of add-on control technology. For example, many of the Commonwealth's large municipal waste combustors are expected to be able to comply with the proposed presumptive RACT requirements for these facilities, including the emission guidelines (40 CFR Part 60, Subparts Cb and Eb) promulgated by the EPA for large municipal waste combustors. The Subpart Cb and Subpart Eb requirements, which are already in effect, were adopted and incorporated by reference in their entirety in Chapter 122 (relating to National standards of performance for new stationary sources) of the *Pennsylvania Code*.

(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 regulations already adopted by Wisconsin and New York and approved by the EPA. The proposed rulemaking would have no effect on Pennsylvania's ability to compete with other states. The proposed rulemaking would improve Pennsylvania's ability to compete with other states by eliminating, in most cases, the time-consuming and costly case-by-case RACT review procedure that the owners and operators of affected facilities had to complete in the past to meet the RACT requirements implemented under §§ 129.91—129.95 (relating to stationary sources of NO_x and VOCs) for the 1-hour ozone standard. (24 Pa. B. 467, January 15, 1994).

(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 will 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) at its meeting of February 14, 2013. The AQTAC voted 13-3-1 to concur with the Department's recommendation to move the proposed rulemaking forward to the Board for consideration as proposed rulemaking. In addition, the proposed amendments were discussed with the Citizens Advisory Council (CAC) Policy and Regulatory Oversight Committee (Committee) on February 6, 2013. On the recommendation of the Committee, the CAC voted on February 9, 2013, 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 July 24, 2013. The SBCAC voted 8-0-0 to concur with the Department's recommendation to forward the proposed rulemaking to the Board for consideration.

(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 affects the owner and operator of a major NO_x emitting facility or a major VOC emitting facility, or both, that was in existence on or before July 20, 2012, that is not regulated elsewhere in Chapter 129. The proposal also applies to a modification at an existing source after July 20, 2012, which results in the source or facility being considered a major NO_x or major VOC emitting source or facility. There are nine source categories that would be affected by this proposed rulemaking - combustion units; boilers; process heaters; turbines; stationary internal combustion engines; municipal solid waste landfills; municipal waste combustors; cement kilns; and other sources that are not regulated elsewhere under Chapter 129.

Approximately 810 emission sources of NO_x, VOC, or both, located at about 192 facilities (including facilities in Allegheny and Philadelphia Counties) fit these nine categories and would be subject to the proposed rulemaking. Of the 810 emission sources, the Department has identified 141 sources that may require add-on control to comply with the proposed RACT requirements.

The sources included in these nine categories are located at various facility types including fossil fuel-burning and other electric generation; natural gas pipeline transport and distribution; petroleum refining; petroleum and coal products manufacturing; steam and air conditioning supply; fats and oils refining and blending; specialty canning; tobacco products manufacturing; carpet and rug milling; reconstituted wood product manufacturing; paper and paperboard products manufacturing; printing; medicinal and botanical products manufacturing; iron and steel milling, manufacturing and forging; ferroalloy manufacturing; nonferrous metal smelting and refining; semiconductor and related device manufacturing; aircraft manufacturing; chemicals manufacturing; Portland cement manufacturing; railroad rolling stock manufacturing; motorcycle manufacturing; wireless telecommunications carriers; colleges and universities; home health care services; hospitals; pharmaceuticals manufacturing; beer brewing; and biotechnology.

The Department reviewed its database of regulated facilities with RACT-related permit conditions to determine how many, and which, potentially meet the definition of small business now specified in Section 3 of the Regulatory Review Act, as “in accordance with the size standards described by the SBA’s Small Business Size Regulations under 13 CFR Chapter 1 Part 121 (relating to Small Business Size Regulations) or its successor regulation.” The Department cross-referenced facility North American Industry Classification System (NAICS) information from its database with the “Table of Small Business Size Standards Matched to North American Industry Classification System Codes effective January 7, 2013,” obtained from the SBA website at [http://www.sba.gov/sites/default/files/files/Size_Standards_Table\(1\).pdf](http://www.sba.gov/sites/default/files/files/Size_Standards_Table(1).pdf). The SBA table gives different determination criteria for different NAICS codes. A small business may be defined, for example, by sales, number of employees, or electric generation capacity in the case of utilities. The Department then accessed the SBA Dynamic Small Business Search database which contains information about small businesses that have registered with the SBA. This self-certifying database incorporates the small business criteria contained in 13 CFR Chapter 1 Part 121, including NAICS codes, when the owners/operators of the companies register. This registration benefits the owners and operators of small businesses because the database assists government contracting officers in determining whether a company is eligible as a small business. The Department also reviewed information available on individual company internet sites for information that could identify a company as a small business based on sales or number of employees. In addition, the Department contacted the Small Business

Development Center and used its access to eMAP programs to identify small businesses potentially affected by the proposed rulemaking.

For electric generation facilities, the Department obtained yearly generation information from the Federal Energy Information Agency databases at <http://www.eia.gov/electricity/data/eia860/>. This information was correlated with the NAICS table definitions cited above to determine which electric generation facilities could be classified as small businesses.

From these sources, the Department determined that the owners and operators of approximately 20 affected major facilities meet the definition of “small business” now specified in Section 3 of the Regulatory Review Act. The Department expects that the negative impact on the owners and operators of these major facilities/small businesses will be minimal due to the flexibility provided in the proposed rulemaking to achieve compliance with the requirements.

Under proposed § 129.98 (relating to facility-wide or system-wide NO_x emissions averaging RACT operating permit modification general requirements), the owner or operator of an affected major NO_x emitting facility/small business that includes an air contamination source subject to a NO_x RACT requirement or NO_x RACT emission limitation in § 129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) that cannot meet the applicable presumptive NO_x RACT requirement or NO_x RACT emission limitation may elect to meet the applicable presumptive NO_x RACT requirement or NO_x RACT emission limitation in § 129.97 by averaging NO_x emissions on either a facility-wide or system-wide basis using a 30-day rolling average. System-wide emissions averaging must be among sources under common control of the same owner or operator in this Commonwealth. Under proposed § 129.99 (relating to alternative RACT proposal and petition for alternative compliance schedule) the owner or operator of an air contamination source that cannot meet the applicable presumptive RACT requirement or RACT emission limitation of § 129.97 or participate in either a facility-wide or system-wide NO_x emissions averaging RACT operating permit modification under § 129.98 may propose an alternative NO_x RACT emission limitation or VOC RACT emission limitation, or both.

The flexibility afforded to the owners and operators of affected facilities, including small businesses, in the proposed rulemaking, ensures minimal negative effect on their operations. The owners and operators of the affected facilities are familiar with the existing requirements for emissions control, emissions reporting, and recordkeeping for their entity and have the professional and technical skills needed for continued compliance with these requirements.

(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 Department estimates that the owners and operators of approximately 810 emission sources of NO_x, VOCs, or both, located at about 192 major facilities would be required to comply with the proposed rulemaking following promulgation. The proposed rulemaking would affect owners and operators of major NO_x emitting or VOC emitting facilities, or both, for which no RACT requirements have otherwise been established in Chapter 129. These sources include those that are not regulated elsewhere in Chapter 129 or through implementation of CTG recommendations for a source category. The owners and operators of facilities existing prior to July 20, 2012, and currently subject to RACT requirements implemented under §§ 129.51—129.52c, 129.54—129.69, 129.71—129.73, 129.75, 129.77, 129.101—129.107 and 129.301—129.310 may already have the applicable RACT limitations included in their permit to comply with the applicable regulation. The proposed rulemaking requirements also apply to a

modification at an existing source after July 20, 2012, which results in the source or facility being considered a major NO_x or major VOC emitting source or facility.

As described in the response to question (15), the Department has determined that the owners and operators of approximately 20 affected major facilities meet the definition of “small business” specified in Section 3 of the Regulatory Review Act. Included in this group are petroleum and coal products manufacturers; electric power generators; paper mills; pharmaceuticals manufacturers; and colleges and universities. The Department expects that the negative impact on these major facility/small businesses will be minimal. In those instances where the owner and operator of a major facility/small business is not able to comply with the specified presumptive RACT requirements, the owner and operator may submit a request to meet emission limitations on either a facility-wide or system-wide NO_x emissions averaging basis using a 30-day rolling average. System-wide emissions averaging must be among sources under common control of the same owner or operator in this Commonwealth. The owner or operator of an air contamination source that cannot meet the applicable presumptive RACT requirement or RACT emission limitation or participate in either a facility-wide or system-wide NO_x emissions averaging RACT operating permit modification may propose an alternative NO_x RACT emission limitation or VOC RACT emission limitation, or both. The flexibility afforded by the proposed rulemaking ensures minimal negative effect on the owners and operators of affected major facilities/small businesses and their operations.

(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.

Impacts of the proposed rulemaking on industry would vary due to the diverse types of source categories as listed in item (15). The Department’s circumstances from 1995 to 2006 of making numerous submittals to the Administrator of the EPA for Federal approval of revisions to the SIP required for the approximately 600 case-by-case RACT determinations made under §§ 129.91—129.95 for attaining and maintaining the 1-hour ozone standard will be averted with the implementation of the proposed presumptive RACT standards; optimization of existing control measures may be necessary. This proposed rulemaking would establish applicability requirements for the implementation of specified RACT requirements for the nine identified source types for attaining and maintaining the 1997 and 2008 8-hour ozone standards. The proposed rulemaking would incorporate operational flexibility including system-wide and facility-wide emissions averaging as a compliance alternative. 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 and to establish consistent standards for the owners and operators of all affected facilities that are major NO_x emitting or VOC emitting facilities, or both.

Benefits of the proposed rulemaking to the affected owners and operators include implementation of consistent presumptive RACT requirements and RACT emission limitations across the Commonwealth. This would minimize the need for owners and operators to develop a case-by-case RACT permit application with the associated costs and time constraints. This would minimize the downtime to the operation and allow owners and operators to maintain and grow their operations, maintain jobs and staffing levels, and maintain or increase their revenues.

Benefits to the Department would include the minimization of case-by-case permit reviews and the associated demand on staff resources.

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

Each time the EPA revises the ozone NAAQS, the owners and operators of existing facilities subject to RACT are required to re-evaluate what constitutes RACT for their source to achieve the lowest emission limit for NO_x or VOCs that the source is capable of meeting considering technological and economic feasibility. In the Department's current RACT program implemented in 1994 under §§ 129.91—129.95 for the 1-hour ozone standard, the case-by-case analysis process began in 1995 and was not completed until 2006 due to the need for EPA approval of SIP submittals for the case-by-case RACT determinations. Many facility owners and operators had to hire consultants or additional staff to complete their case-by-case RACT analyses and proposals and handle the permitting requirements. The proposed rulemaking would significantly reduce or eliminate these costs for most of the owners and operators of affected facilities.

Ozone precursor emission reductions achieved through the implementation of presumptive RACT requirements and RACT emission limitations for the affected sources would help the Commonwealth attain and maintain the 1997 and 2008 8-hour ozone NAAQS. Given that implementation of RACT requirements is Federally required, the Department estimates that the proposed presumptive RACT requirements and RACT emission limitations would achieve greater emission reductions at a lower cost to the affected owners and operators and to the Commonwealth. Further, these reductions would occur in a more timely manner than implementation of another round of case-by-case determinations for every affected major source of NO_x or VOCs than occurred under §§ 129.91—129.95. For example, the averaging provisions proposed under § 129.98 would provide ozone precursor emission reductions at the lowest cost while preserving existing reductions or realizing additional reductions.

By establishing consistent presumptive RACT requirements and RACT emission limitations Commonwealth-wide for the owners and operators of affected major NO_x emitting or VOC emitting facilities, or both, and by providing flexibility in compliance through emissions averaging and case-specific options, the owners and operators of affected facilities would be able to achieve compliance in the most cost-effective manner. The proposed rulemaking would minimize the need for most case-by-case determinations and give the owners and operators of affected facilities the flexibility to achieve compliance by meeting the presumptive limits through an emission averaging protocol before having to resort to a time-consuming and costly case-by-case analysis.

(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 Department conducted a generic RACT analysis of those existing sources where a “no controls” decision was previously made under §§ 129.91—129.95 for the 1-hour ozone standard to determine if additional controls would represent RACT for the 8-hour ozone NAAQS. That generic analysis identified existing affected source categories by size and fuel type; identified available feasible NO_x or VOC control options, or both, for each type of existing source; estimated emission reduction potential for each control technology; identified costs for technologies, using appropriate updates; evaluated cost-effectiveness per the guidance provided in the EPA Air Pollution Control Cost Manual, EPA/452/B-02-001, 6th edition, January 2002, for both uncontrolled and controlled sources (combinations of technologies); and proposed as RACT in the rulemaking the emission limit achievable by cost-effective technologies using benchmark cost per ton of emissions reduced.

Based on this analysis the Department has determined that additional cost-effective controls would

represent RACT for the 8-hour ozone NAAQS for nine existing source categories - combustion units; boilers; process heaters; turbines; stationary internal combustion engines; municipal solid waste landfills; municipal waste combustors; cement kilns; and other sources that are not regulated elsewhere under Chapter 129.

Compliance costs would vary for each source or facility depending on which compliance option is chosen by the owner and operator of the affected source or facility. The proposed rulemaking would include a provision for the owner and operator of an affected facility that cannot meet the applicable presumptive NO_x RACT requirement or emission limitation or VOC RACT emission limitation to elect to meet the applicable presumptive NO_x RACT requirement or NO_x RACT emission limitation by averaging NO_x emissions on either a facility-wide or system-wide basis using a 30-day rolling average. The owner and operator of an affected source that cannot meet the applicable presumptive RACT requirement or RACT emission limitation or participate in either a facility-wide or system-wide NO_x emissions averaging RACT operating permit modification may propose an alternative NO_x RACT emission limitation or VOC RACT emission limitation, or both, on a case-by-case basis.

Under these alternative compliance provisions, the owner or operator must demonstrate to the Department's satisfaction that it is economically or technically infeasible to meet the applicable proposed presumptive NO_x RACT requirement or emission limitation or VOC RACT emission limitation. The flexibility provided by these alternative compliance provisions may minimize compliance costs to the owner or operator of an affected facility.

The Department anticipates that the owners and operators of most of the affected source units would be able to meet the presumptive RACT standard without the addition of add-on control, so there is likely to be little to no cost incurred by most of the affected owners and operators. Additionally, these owners and operators would not need to hire consultants or additional staff to perform a case-by-case analysis to determine what control measures are needed at the affected facility to comply with the proposed RACT requirements necessary to meet the 1997 and 2008 8-hour ozone NAAQS. Further, these owners and operators would not need to purchase and install add-on control or submit a request for approval to implement a facility-wide or system-wide NO_x emissions averaging plan, or propose an alternative NO_x RACT emission limitation or VOC RACT emission limitation, or both, on a case-by-case basis.

For the owner and operator of an affected source that would need to install add-on control to comply with the proposed applicable presumptive RACT requirement or RACT emission limitation, the compliance costs would include the total capital investment of the add-on control equipment, the annual operating costs of the add-on control, and the cost-effectiveness of the control in reducing emissions from the source. The cost-effectiveness of the control is calculated by dividing the annual operating costs of the add-on control by the amount of emission reductions achieved annually from operation of the add-on control.

It is not possible to provide a precise estimate of the costs that would be incurred by the owner or operator of a specific source due to not knowing what type of add-on control the owner or operator may choose and to the variability in capital investment costs and annual operating costs for the chosen add-on control. Capital costs include the purchase and installation costs for the chosen add-on control technology and the costs of monitoring equipment that may be required for the add-on control, along with delivery costs, start-up costs, initial testing and taxes. Annual operating costs include the costs of electricity or fuel to operate the add-on control and the monitoring equipment, if needed, maintenance and repair costs, overhead, capital recovery, and property taxes. Precisely estimating the cost-effectiveness of each add-on control for each affected source is not possible since the actual amount of

emissions reduced would not be known until the add-on control is installed and operated.

While developing a precise estimate of compliance costs for the affected owners and operators is not possible, the Department identified existing affected source categories by size and fuel type; identified available feasible NO_x or VOC control options, or both, for each type of existing source; estimated emission reduction potential for each control technology; identified costs for each control technology, using appropriate updates; evaluated cost-effectiveness per the guidance provided in the EPA Air Pollution Control Cost Manual, EPA/452/B-02-001, 6th edition, January 2002, for both uncontrolled and controlled sources (combinations of technologies); and projected what control technology might be applied to each affected source.

For the combustion units and process heaters, combustion turbines and stationary internal combustion engines source types, the Department reviewed its permit databases and cataloged existing sources subject to case-by-case NO_x and VOC emission limitations under the first round of RACT (RACT 1) implemented under §§ 129.91—129.95. The information collected included the RACT I emission limitation and required emission control technology for each source. The RACT I uncontrolled emission limitations were used as a baseline to determine technical and economic feasibility for emission controls for the second round of RACT (RACT 2) being proposed in this rulemaking.

The Department adjusted the RACT I cost benchmarks of \$1,500.00 and \$3,000.00 per ton of NO_x or VOC emissions removed, respectively, by multiplying by the consumer price index (CPI) differential between 1990 and 2010 of 1.67 to arrive at benchmarks of \$2,500.00 and \$5,000.00 per ton of NO_x or VOC emissions removed, respectively, for RACT 2. The NO_x benchmark of \$2,500.00 is consistent with Wisconsin's NO_x cost benchmark and the Wisconsin SIP revision was approved by the EPA at 75 FR 64155 (October 19, 2010). No other state has adopted a RACT VOC emission limitation for these sources, with an accompanying cost benchmark. Using these cost benchmarks as a guide, the Department evaluated technically feasible emission controls for cost-effectiveness and economic feasibility. From this evaluation, the RACT 2 NO_x and VOC emission limitations included in the proposed rulemaking were determined.

A source was assumed to require control if the proposed NO_x RACT 2 emission limitation was less than 50% of the NO_x RACT 1 emission limitation currently applied to the source. Using these benchmarks, the Department projects that the cost of complying with the applicable presumptive RACT requirement or RACT emission limitation by installing add-on control technology or by complying through an averaging protocol would be less than \$2,500.00 maximum per ton of NO_x emission reductions, no matter which source type and add-on control technology is considered. The estimated cost for the worst case scenario to meet the applicable presumptive RACT requirement or RACT emission limitation would be roughly \$2,500.00 per ton of NO_x emission reduction required.

As shown in the table below, Department has estimated that the average cost-effectiveness for implementing add-on controls, where applicable, ranges from \$105.46 per ton of NO_x emissions reduced for operation of a non-selective catalytic regenerative oxidizer (NSCR) installed on a rich burn engine to \$2,446.00 per ton of NO_x emissions reduced for use of low emission combustion technology in a lean burn engine.

Average Cost per ton of NO_x Emissions Reduced

Source	Fuel	Control	Average Cost per ton NO _x Controlled
Boiler	Natural Gas	LNB	\$ 2,427.00
Boiler	No. 2 Oil	LNB	\$ 2,427.00
Boiler	No. 4 & 6 Oil	LNB	\$ 1,452.50
Boiler	Refinery Fuel Gas	LNB	\$ 2,335.23
Boiler	Coal	LNB	\$ 849.00
Engine	Rich Burn	NSCR	\$ 105.46
Engine	Lean-Burn	LEC	\$ 2,446.00
Turbine	Natural Gas	DLNC	\$ 2,437.50
Turbine	Diesel	DLNC	\$ 1,523.00

The Department provides two examples to demonstrate the range of compliance costs that may be incurred by the owner or operator of an affected source.

Example 1: The source is a natural gas-fired rich-burn engine rated at 1100 brake horsepower (bhp). The engine's current RACT limitation implemented under §§ 129.91—129.95 is 26.32 gm/bhp-hr with potential to emit NO_x emissions of 279.36 tpy. A feasible add-on control for this source is NSCR with estimated capital and installation costs of \$45,520 and estimated annual operating costs of \$14,744. The engine's RACT limitation under the proposed rulemaking would be 2 gm/bhp-hr and it would emit 21.22 tpy of NO_x. The projected emission reductions would be 258.14 tpy. The estimated cost-effectiveness of installing and operating the NSCR add-on control for this source would be \$58.65 per ton of NO_x emissions reduced. The estimated cost-effectiveness for this example is below the average cost-effectiveness for this type of add-on control for this type of source.

Example 2: The source is a 100 MMBtu/hr heat input natural gas-fired boiler. The boiler's uncontrolled NO_x emissions after implementation of RACT under §§ 129.91—129.95 are 0.3 lb NO_x/MMBtu or 131 tpy. A feasible add-on control for this source is a low-NO_x burner with estimated capital cost of \$100,000 and estimated installation cost of \$70,000. The estimated annual operating costs are \$127,854.00. The boiler's RACT limitation under the proposed rulemaking would be 0.08 lb NO_x/MMBtu. The projected NO_x emission reductions would be 63.9 tpy. The estimated cost-effectiveness of installing and operating the Low NO_x Burner technology for this source would be \$2,000.85 per ton of NO_x emissions reduced. The estimated cost-effectiveness for this example is below the average cost-effectiveness for this type of add-on control for this type of source.

The Department estimates that the projected maximum total cost of control for the 141 affected sources identified as needing add-on control would be \$114,288,771, as shown in the table below. The actual costs could be and are expected to be much less since many of the sources are not expected to need to have additional add-on controls to achieve the proposed RACT requirements. Further, the owners and operators of those sources that already achieve the level of emissions required under the proposed RACT rulemaking would have no costs to comply.

Source Type	Potential NO _x Reduction (TPY)	Percent Reduction	Number of Units	Number of Units Requiring Control	Total Cost of Control
Boilers	108,616	25%	269	49	\$ 40,813,364
Engines	20,596	44%	393	28	\$ 25,941,478
Turbines	29,210	49%	148	64	\$ 47,543,930
Total	158,421	29%	810	141	\$ 114,298,771

The total projected maximum potential NO_x emission reductions would be 158,421 tons per year. The amount of actual NO_x emission reductions achieved could be less depending on whether a source is already controlled sufficiently to comply with the proposed RACT requirements or on what type of control is implemented for a source that needs control to achieve compliance with the proposed RACT requirements.

No new legal accounting or consulting procedures are anticipated.

(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.

The Department identified 11 local government-owned permitted Title V sources that would be subject to the proposed rulemaking. All of the landfills already comply with the applicable new source performance standard. The remaining affected sources are boilers rated at less than 50 MMBtu/hr, engines rated at less than 500 bhp, or engines with an operating-hours cap of 500 or fewer hours per year. The Department does not anticipate additional compliance costs or savings for these sources.

There may be increased tax revenues generated by industry located within the local government jurisdiction, since the proposed rulemaking minimizes disruptions, increases efficiency, and reduces the time needed to complete the permitting process for private facilities, thereby resulting in increased productivity. This proposed rulemaking updates the applicability of certain requirements to which owners and operators of certain stationary sources are already subject. Additionally, it provides for a system-wide or facility-wide averaging, and provides for an alternative method for compliance.

(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.

The Department identified 24 state-owned permitted Title V sources that would be subject to the proposed rulemaking. Of these 24 sources, the Department projects that only two would need to install add-on control to comply with the proposed rulemaking. The two sources are natural gas-fired boilers. The NO_x emissions from each boiler would be 62 tpy less after control. At an estimated cost per ton controlled of \$2,427.00, the Department projects that the estimated control cost for each boiler would be \$150,348, for a total of \$300,696.

The Department would realize administrative savings compared to the previous case-by-case RACT determinations and permitting implemented under §§ 129.91—129.95 with regard to paid salaries and benefits due to the lower amount of review time required under the proposed presumptive RACT

program. The state could save more than \$3,500.00 for every 100 hours of review time that has been averted under the new rule. The flexibility provided in the proposed rulemaking is designed to minimize or even eliminate the number of case-by-case applications that would have to be processed without the proposed presumptive requirements.

The Department would incorporate the new RACT requirements in Title V Operating Permits for each affected facility during the normal permit renewal process, if less than 3 years remain in the permit term. However, if more than 3 years remain in the permit term, permit modifications will be necessary. No additional administrative costs are anticipated.

(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. The proposed amendments do not add or change the existing reporting, recordkeeping, or other paperwork requirements for facilities subject to the proposed rulemaking. The presumptive emission limitations established by the proposed rulemaking would not require the submission of applications for amendments to existing operating permits. These proposed requirements would be incorporated as applicable requirements at the time of permit renewal, if less than 3 years remain in the permit term. The owners and operators of the affected facilities are familiar with the existing requirements for reporting and recordkeeping for their entity and have the professional and technical skills needed for continued compliance with these requirements.

(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
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	0.00	29,974,692	84,324,077
Local Government	0.00	0.00	0.00	0.00	0.00	0.00
State Government	0.00	0.00	0.00	0.00	75,174	225,522
Total Costs	0.00	0.00	0.00	0.00	30,049,868	84,549,599

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	\$23,663,000	\$26,297,000
Clean Air Fund Major Emission Facilities (215-20077)	\$20,565,000	\$20,055,000	\$17,545,000	\$21,330,000
Clean Air Fund Mobile and Area Facilities (233-20084)	\$5,620,000	\$2,710,000	\$7,420,000	\$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.

The Department reviewed its database of regulated facilities with RACT-related permit conditions to determine how many, and which, potentially meet the definition of small business now specified in Section 3 of the Regulatory Review Act, as “in accordance with the size standards described by the SBA’s Small Business Size Regulations under 13 CFR Chapter 1 Part 121 (relating to Small Business Size Regulations) or its successor regulation.” The Department cross-referenced facility North American Industry Classification System (NAICS) information from its database with the “Table of Small Business Size Standards Matched to North American Industry Classification System Codes effective January 7, 2013”, obtained from the SBA website at [http://www.sba.gov/sites/default/files/files/Size_Standards_Table\(1\).pdf](http://www.sba.gov/sites/default/files/files/Size_Standards_Table(1).pdf). The SBA table gives different determination criteria for different NAICS codes. A small business may be defined by sales, number of employees, or generation capacity in the case of utilities. The Department then accessed the SBA Dynamic Small Business Search database which contains information about small businesses that have registered with the SBA. This self-certifying database incorporates the small business criteria contained in 13 CFR Chapter 1 Part 121, such as North American Industry Classification System (NAICS) codes when the owners/operators of the companies register. This registration benefits small businesses because the database assists government contracting officers in determining whether a company is eligible as a small business. The Department reviewed information available on individual company’s internet sites for information that could identify a company as a small business based on sales or number of employees.

Finally, the Department contacted the Small Business Development Center and used its access to eMAP programs.

For power generation facilities, the Department obtained yearly generation information from the Federal Energy Information Agency databases at <http://www.eia.gov/electricity/data/eia860/>. This information was correlated with the NAICS table definitions cited above to determine which generation facilities could be classified as small businesses.

From these sources, the Department determined that approximately twenty facilities meet the definition of “small business” specified in Section 3 of the Regulatory Review Act. These facilities include petroleum and coal products manufacturers, electric power generators, paper mills, pharmaceutical preparation manufacturer, and colleges and universities. The Department expects that the impact on these small businesses will be minimal. In those cases where a small business is not able to comply with the specified presumptive RACT requirements, owners and operators may submit a request to meet emission limitations by facility-wide or system-wide averaging protocol, or may submit a request for an alternative case-specific emission limitation. The flexibility afforded small businesses in the regulation ensures minimal negative effect on their operations.

(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.

No new reporting, recordkeeping, and other administrative procedures are required in the proposed regulation for small businesses. The proposed amendments do not add or change the existing reporting, recordkeeping, or other paperwork requirements for facilities subject to the proposed regulation. The owners and operators of subject facilities are familiar with the existing requirements for reporting and recordkeeping for their entity and have the professional and technical skills needed for continued compliance with these requirements.

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

By establishing consistent standards for all facilities that are major NO_x emitting or major VOC emitting facilities, or both, and by providing flexibility in compliance through emissions averaging and case-specific options, the owners and operators of these facilities will be able to achieve compliance in the most cost-effective manner. The effects on the regulated community should be very limited and are minimized through these alternative provisions.

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

The requirement to adopt and implement RACT requirements is Federally mandated. All businesses, whether or not meeting the designation of small business, that are major NO_x emitting or major VOC emitting facilities, or both, will be required to control emissions to meet the presumptive levels established in the proposed rulemaking. The proposed rulemaking incorporates flexibility to achieve mandated standards. By establishing consistent standards for all facilities that are major NO_x emitting or major VOC emitting facilities, or both, and by providing flexibility in compliance through emissions averaging and case-specific options, the owners and operators of affected facilities will be able to achieve compliance in the most cost-effective manner. These options provide all owners or operators, whether small business or not, increased flexibility to meet Federally mandated RACT requirements in the most

cost-effective manner.

Many owners or operators of major NO_x emitting or major VOC emitting facilities, or both, will not require additional control measures to comply with the proposed RACT requirements. The effects on any small business should be very limited and are minimized through these alternative provisions including emissions averaging to demonstrate compliance with the RACT requirements.

No new legal accounting or consulting procedures would be required.

(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.

RACT is Federally mandated and applies to the owners and operators of major air contamination sources of NO_x or VOCs, or both. All businesses, whether or not they are considered a small business, that are major NO_x emitting or major VOC emitting facilities, or both, will be required to control emissions, if necessary, to meet the presumptive levels established in the proposed rulemaking. The proposed rulemaking provides flexibility for demonstrating compliance through emissions averaging and case-by-case RACT determination options. Facilities will be able to achieve compliance in the most cost-effective manner. These options provide all owners or operators, whether minorities or small businesses increased flexibility to meet Federal RACT requirements in the most cost-effective manner available.

Minorities, the elderly, small businesses, and farmers who are not owners or operators of a major NO_x emitting or major VOC emitting facilities, or both, would not be affected by the proposed rulemaking.

(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. Many owners or operators of major NO_x emitting or major VOC emitting facilities, or both, will not need to do anything more to control emissions than they have already done. The proposed rulemaking incorporates flexibility to achieve mandated standards. The proposed rulemaking establishes consistent standards Commonwealth-wide for all facilities that are major NO_x emitting or VOC emitting facilities, or both. No new legal accounting or consulting procedures would be required.

(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.

RACT is Federally mandated. Owners and operators of major NO_x emitting or major VOC emitting facilities, or both, that are also small businesses would have several options available to comply with the proposed RACT requirements. The proposed rulemaking incorporates flexibility to achieve mandated standards. By establishing consistent standards for all facilities that are major NO_x emitting or major VOC emitting facilities, or both, and by providing flexibility in compliance through emissions averaging and case-by-case RACT determinations, the owners and operators of affected facilities that are also small businesses would be able to achieve compliance in the most cost-effective manner. These options provide all owners or operators, whether small business or not, increased flexibility to meet Federal

RACT requirements in the most cost-effective manner available.

Many owners or operators of major NO_x emitting or major VOC emitting facilities, or both, will not need to do anything more to control emissions than they have already done. Others will be able to meet the requirements using the flexible options provided in the proposed rulemaking. The negative effects on any small business should be very limited and would be minimized through these alternative provisions.

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

The proposed rulemaking includes provisions for all owners or operators of major NO_x emitting or major VOC emitting facilities, or both, to submit requests for alternative compliance schedules.

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

The owners and operators of subject facilities are familiar with the existing requirements for reporting and recordkeeping for their entity and have the professional and technical skills needed for continued compliance with these requirements.

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

Many owners or operators of major NO_x emitting or major VOC emitting facilities, or both, will not need to do anything more to control emissions than they have already done. Others will be able to meet the requirements using the flexible options provided in the proposed rulemaking.

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

RACT is Federally mandated. All businesses, whether or not meeting the designation of small business, that are major NO_x emitting or major VOC emitting facilities, or both, will be required to control emissions to meet the presumptive levels established in the proposed rulemaking. Alternatively, the owners and operators of affected facilities may participate in an averaging program as described in the proposed rulemaking, or submit a case-by-case RACT analysis if the prior two options are not cost-effective. These options provide all owners or operators, whether small business or not, increased flexibility to meet Federal RACT requirements in the most cost-effective manner available.

The proposed rulemaking is considered the most flexible as well as least burdensome acceptable method of ensuring compliance with the Federal RACT mandate. The proposed rulemaking incorporates flexibility to achieve mandated standards and establishes consistent standards for all facilities that are major NO_x emitting or major VOC emitting facilities, or both.

(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.

RACT is Federally mandated.

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

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|---|------------------------------------|
| A. The date by which the agency must receive public comments: | <u>1st Quarter 2014</u> |
| B. The date or dates on which public meetings or hearings will be held: | <u>1st Quarter 2014</u> |
| C. The expected date of promulgation of the proposed regulation as a final-form regulation: | <u>4th Quarter 2014</u> |
| D. The expected effective date of the final-form regulation: | <u>Date of publication</u> |
| E. The date by which compliance with the final-form regulation will be required: | |

Within 1 year of the effective date of publication for sources that do not install add-on control;
within 3 years of the effective date of publication for sources that install add-on control

- | | |
|--|-----------|
| F. The date by which required permits, licenses or other approvals must be obtained: | <u>NA</u> |
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(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.