

Notice of Proposed Rulemaking
Department of Environmental Protection
Environmental Quality Board
(25 Pa. Code, Chapters 121, 129 and 130)
Adhesives, Sealants, Primers and Solvents

Preamble

The Environmental Quality Board (Board) proposes to amend Chapters 121 and 129 (relating to general provisions; and standards for sources) and to add Subchapter D (relating to adhesives, sealants, primers and solvents) to Chapter 130 (relating to standards for products), to read as set forth in Annex A.

The proposed rulemaking will add definitions to § 121.1 (relating to definitions) for approximately 56 new terms, including those that relate to the adhesive, sealant, primer and solvent product categories that will be regulated under the requirements of § 129.77 (relating to control of emissions from the use or application of adhesives, sealants, primers and solvents) and Chapter 130, Subchapter D, and will amend definitions for nine existing terms to provide clarity.

The proposed rulemaking will add § 129.77 to regulate the owner or operator of a facility or stationary source that uses or applies, on or after April 15, 2010, a regulated adhesive, sealant, adhesive primer or sealant primer product. The proposal will adopt emission standards and volatile organic compound (VOC) content limits for the industrial or commercial use or application of 37 categories of adhesive, sealant, adhesive primer or sealant primer products, and adhesive or sealant products applied to particular substrates. The proposal will also include requirements for the use of surface preparation solvents and cleanup solvents. Owners and operators using noncomplying products will have the option to use add-on controls as a compliance alternative rather than switching to complying products.

The proposal will add Subchapter D to Chapter 130 to adopt emission standards and VOC content limits for the sale, supply, offer for sale, manufacture, use or application of 37 categories of adhesive, sealant, adhesive primer and sealant primer products; adhesive and sealant products applied to certain substrates; and surface preparation solvents and cleanup solvents. The requirements of the proposed Chapter 130, Subchapter D, will apply to a person who, on or after April 15, 2010, sells, supplies, offers for sale or manufactures for sale an adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent product for industrial or commercial use or application in this Commonwealth. The requirements will also apply to a person who uses or applies, for compensation, an adhesive, sealant, adhesive primer or sealant primer product; adhesive or sealant products applied to particular substrates; or surface preparation solvent or cleanup solvent products in this Commonwealth.

This proposal was adopted by the Board at its meeting on (date).

A. Effective Date

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

B. Contact Persons

For further information contact Arleen J. Shulman, Chief, Division of Air Resource Management, P.O. Box 8468, Rachel Carson State Office Building, Harrisburg, PA 17105-8468, (717) 772-3436, or Kristen Campfield Furlan, Assistant Counsel, Bureau of Regulatory Counsel, P.O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 787-7060. Information regarding submitting comments on this proposal appears in Section J of this preamble. Persons with a disability may use the AT&T Relay Service by calling 1-800-654-5984 (TDD users) or 1-800-654-5988 (voice users). This proposal is available electronically through the Department of Environmental Protection's (Department) website at www.depweb.state.pa.us (select Public Participation).

C. Statutory Authority

This proposed rulemaking is authorized under section 5 of the Air Pollution Control Act (APCA) (35 P. S. § 4005), which in subsection (a)(1) grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth.

D. Background and Purpose

The purpose of this proposed rulemaking is to establish a program to limit the emissions of VOCs from the industrial and commercial use and application of certain adhesive, sealant, adhesive primer and sealant primer products; adhesive and sealant products applied to certain substrates; and surface preparation solvent and cleanup solvent products. This proposed rulemaking also extends these product requirements to the owners or operators of facilities that use these products as part of a manufacturing process and provides them with an alternative compliance method of using add-on air pollution controls in place of complying products. VOCs are a precursor for ozone formation. Ground-level ozone is not emitted directly by adhesives, sealants, primers and solvents to the atmosphere, but is formed by a photochemical reaction between VOCs and nitrogen oxides (NO_x) in the presence of sunlight.

The United States Environmental Protection Agency (EPA) is responsible for establishing National Ambient Air Quality Standards (NAAQS) for six criteria pollutants considered harmful to public health and the environment: ozone, particulate matter, NO_x, carbon monoxide, sulfur dioxide and lead. The Federal Clean Air Act established two types of NAAQS: primary standards, limits set to protect public health; and secondary standards, limits set to protect public welfare, including protection against visibility impairment and from damage to animals, crops, vegetation and buildings. In 1997, the EPA established the 8-hour ozone NAAQS, a more protective ozone primary and secondary NAAQS to protect public health and welfare.

When ground-level ozone is present in concentrations in excess of the Federal health-based 8-hour NAAQS for ozone, public health and welfare are adversely affected. Ozone exposure 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, much like the skin peels after sunburn. 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 in ways similar to humans.

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. 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.

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

In 2004, the EPA designated 37 counties in this Commonwealth as 8-hour ozone nonattainment areas for the 1997 8-hour ozone NAAQS. The proposed rulemaking will support the 8-hour ozone NAAQS attainment demonstrations for the Philadelphia 5-county area (comprising Bucks, Chester, Delaware, Montgomery and Philadelphia Counties) and the 7-county Pittsburgh-Beaver Valley Area. The proposed rulemaking will also provide additional reductions to support the maintenance plans for the remaining areas recently redesignated to attainment of the 8-hour ozone health-based standard.

Further, the proposed rulemaking will provide additional reductions of VOC emissions to meet the revised 8-hour ozone standard of 0.075 parts per million (ppm), down from 0.08 ppm, promulgated by the EPA on March 27, 2008 (73 FR 16436). Recommendations for attainment, nonattainment and unclassifiable areas under the new, more stringent 8-hour ozone standard must be submitted to the EPA in March 2009; final action by the EPA is anticipated in March 2010. The designations will take effect 60 days after the EPA publishes a notice in the *Federal Register*.

There are no Federal limits for the larger container sizes of adhesive, sealant, adhesive primer and sealant primer products that will be subject to regulation under this proposed rulemaking. The staff of the OTC and Member States and the District of Columbia formed a workgroup to discuss control measures for the sale, offer for sale, supply, manufacture, industrial use and commercial application of solvent-based adhesives, sealants and primers during a series of conference calls and workshops held from the spring of 2004 through the autumn of 2006. The OTC workgroup collected and evaluated information regarding emission benefits, cost-effectiveness and implementation issues.

This proposed rulemaking is based on emission reduction measures recommended by the Ozone Transport Commission (OTC) in its 2006 Model Rule for adhesives, sealants and primers, which is based on the 1998 reasonably available control technology (RACT) and best available retrofit control technology (BARCT) determination by the California Air Resources Board (CARB) for the industrial and commercial use and application of adhesives, sealants and primers. The Department has reviewed the OTC 2006 Model Rule and the CARB RACT/BARCT for their applicability to the ozone reduction measures necessary for this Commonwealth.

The OTC workgroup received comments on the 2006 Model Rule from the National Paint and Coatings Association, the Adhesive and Sealant Council, Inc., and LORD Corporation. The Department reviewed these comments for applicability to the development of this Pennsylvania-specific proposed rulemaking.

The Department consulted with the Air Quality Technical Advisory Committee (AQTAC) on the proposed rulemaking on March 27 and May 23, 2008. The AQTAC unanimously concurred with the Department's recommendation to seek EQB approval of the proposed rulemaking, asking the Department to consider reducing recordkeeping requirements for some product users and the special needs of segments of the roofing industry. The Department also consulted with the Citizen's Advisory Council on March 18 and May 20, 2008, and with the Small Business Compliance Advisory Committee on April 23, 2008.

The proposed rulemaking is reasonably necessary to achieve and maintain the health-based 8-hour ozone NAAQS in this Commonwealth. This proposed rulemaking is consistent with regulatory initiatives that will be undertaken by other jurisdictions in the Ozone Transport Region (OTR). The proposed rulemaking, when adopted, will be submitted to the EPA as a revision to the Commonwealth's State Implementation Plan.

E. Summary of Regulatory Requirements

This proposed rulemaking amends the definitions in § 121.1 (relating to definitions) of the following terms, to improve clarity, style and format or explain new product categories: “adhesive,” “adhesive primer,” “aerospace vehicle or component,” “as applied,” “as supplied,” “cyanoacrylate adhesive,” “exempt compound or exempt solvent,” “sealant” and “solvent.”

This proposed rulemaking adds definitions in § 121.1 for the following terms to explain new product categories: “ABS welding adhesive or acrylonitrile-butadiene-styrene welding adhesive,” “aerosol adhesive,” “architectural sealant or primer,” “automotive glass adhesive primer,” “CPVC plastic or chlorinated polyvinyl chloride plastic,” “CPVC welding adhesive or chlorinated polyvinyl chloride welding adhesive,” “ceramic tile installation adhesive,” “cleanup solvent,” “computer diskette jacket manufacturing adhesive,” “contact bond adhesive,” “cove base,” “cove base installation adhesive,” “diluent,” “drywall installation,” “fiberglass,” “flexible vinyl,” “indoor floor covering installation adhesive,” “laminant,” “low-solids adhesive, sealant or primer,” “marine deck sealant or marine deck sealant primer,” “medical equipment manufacturing,” “metal to urethane/rubber molding or casting adhesive,” “multipurpose construction adhesive,” “nonmembrane roof installation/repair adhesive,” “outdoor floor covering installation adhesive,” “PVC plastic or polyvinyl chloride plastic,” “PVC welding adhesive or polyvinyl chloride welding adhesive,” “panel installation,” “perimeter bonded sheet flooring installation,” “plastic cement welding adhesive,” “plastic cement welding adhesive primer,” “plastic foam,” “plasticizer,” “plastics,” “porous material,” “propellant,” “reactive diluent,” “roadway sealant,” “rubber,” “SCAQMD-South Coast Air Quality Management District,” “sealant primer,” “sheet rubber installation,” “single-ply roof membrane,” “single-ply roof membrane adhesive primer,” “single-ply roof membrane installation and repair adhesive,” “single-ply roof membrane sealant,” “structural glazing adhesive,” “subfloor installation,” “surface preparation solvent,” “thin metal laminating adhesive,” “tire repair,” “tire tread adhesive,” “traffic marking tape,” “traffic marking tape adhesive primer,” “undersea-based weapons systems components” and “waterproof resorcinol glue.”

The proposed definition of the term “single-ply roof membrane” specifies that it is a prefabricated single sheet of rubber, normally ethylene propylene diene terpolymer, that is field-applied to a building roof using one layer of membrane material. The Board seeks comment on whether the definition of this term should be expanded to include other types of single-ply roof membrane, including thermosets and thermoplastics, rather than those only made of rubber.

Proposed § 129.77(a) establishes that this section applies to the owner or operator of a facility that uses or applies, on or after April 15, 2010, an adhesive, sealant, adhesive primer or sealant primer subject to the emissions standards in Table V (relating to VOC content limits for adhesives, sealants, adhesive primers and sealant primers, as applied) of § 129.77; an adhesive or sealant product applied to the listed substrate subject to the emission standards in Table VI (relating to VOC content limits for adhesive or sealant products applied to particular substrates, as applied) of § 129.77; or a surface preparation solvent or cleanup solvent.

Proposed § 129.77(b) establishes that, on or after April 15, 2010 an owner or operator of a facility may not use or apply an adhesive, sealant, adhesive primer or sealant primer that exceeds the applicable VOC content limit in Table V or VI, except as provided elsewhere in § 129.77.

Proposed § 129.77(c) establishes that, on or after April 15, 2010, an owner or operator of a facility may not use or apply a surface preparation or cleanup solvent that exceeds the applicable VOC content limit or composite vapor pressure requirements of this section, except as provided elsewhere in this section.

Proposed § 129.77(d) specifies that the VOC content limits in Table VI apply if the adhesive or sealant does not have a VOC content limit in Table V. This subsection also specifies that if an adhesive is used to bond dissimilar substrates together, the applicable substrate category with the highest VOC content is the limit for this use.

Proposed § 129.77(e) specifies requirements for an owner or operator using a surface preparation solvent or cleanup solvent.

Proposed § 129.77(f) specifies the requirements for removal of an adhesive, sealant, adhesive primer or sealant primer from the parts of spray application equipment.

Proposed § 129.77(g) addresses the requirements for an owner or operator using an adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent subject to the emission standard requirements of this section that wants to use add-on air pollution control equipment to comply.

Proposed § 129.77(h) establishes that a person using an adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent subject to this section shall store or dispose of all absorbent materials, including cloth or paper, which are moistened with products subject to this section in non-absorbent containers that are kept closed except when placing materials in or removing materials from the container.

Proposed § 129.77(i) establishes that a person may not solicit, require the use of or specify the application of a product subject to this section if the use or application would result in a violation of this section.

Proposed § 129.77(j) specifies that a person who applies or solicits the application of a product subject to this section may not add solvent to the adhesive, sealant, adhesive primer or sealant primer in an amount in excess of the manufacturer's recommendation for application, if this additional solvent causes the product to exceed the applicable VOC content limit listed in Table V or VI, unless the emissions are controlled through the use of add-on air pollution control equipment as specified in subsection (g).

Proposed § 129.77(k) provides for certain exemptions, including exemptions for products being tested or evaluated in a research and development, quality assurance or analytical laboratory, if records are maintained as required in subsections (q) and (r); products that are subject to certain other Department regulations; adhesives and sealants that contain less than 20 grams of VOC per

liter of adhesive or sealant, less water and less exempt compounds, as applied; cyanoacrylate adhesives; adhesives, sealants, adhesive primers or sealant primers that are sold or supplied by the manufacturer or supplier in containers with a net volume of 16 fluid ounces or less, or a net weight of one pound or less, except plastic cement welding adhesives and contact adhesives; and contact adhesives that are sold or supplied by the manufacturer or supplier in containers with a net volume of one gallon or less.

Proposed § 129.77(l) provides exemptions for the use of adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents and cleanup solvents in certain operations, including tire repair operations, if the label of the tire repair adhesive states, “For tire repair only;” the assembly, repair and manufacture of aerospace components or undersea-based weapon systems; the manufacture of medical equipment; and certain plaque laminating operations.

Proposed § 129.77(m) provides a schedule and a phase-in period for the use of compliant single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant and single-ply roof membrane adhesive primer to address rubber roofing adhesive curing issues during the colder months of the year. The phase-in strategy is proposed in order to provide time for product research and development, and for the training of roofing contractors in the effective application of new formulations for use in cold temperatures. According to the Ethylene Propylene Diene Membrane (EPDM) Roofing Association (ERA), compliance with the OTC 2006 Model Rule VOC content limit of 250 grams per liter for single-ply roof membrane installation or repair bonding adhesive is not currently possible in the colder months, as roofing adhesives meeting this limit do not properly cure at temperatures below 40°F. A phase-in strategy has been adopted in Connecticut and is also being considered by the States of New Jersey, New York and Rhode Island and the District of Columbia.

Proposed § 129.77(n) provides an exemption from the requirements of § 129.77 if the total VOC emissions from all adhesives, sealants, adhesive primers and sealant primers used at the facility are less than 200 pounds or an equivalent volume, per calendar year. An owner or operator claiming exemption under this subsection shall record and maintain operational records sufficient to demonstrate compliance with this exemption.

Proposed § 129.77(o) provides an exemption for the use of a noncomplying adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent if the total volume of noncomplying products applied facility-wide does not exceed 55 gallons per calendar year. An owner or operator claiming exemption under this subsection shall record and maintain operational records sufficient to demonstrate compliance with this exemption.

Proposed § 129.77(p) specifies that each owner or operator subject to this section shall maintain records demonstrating compliance with this section, including specific information. Several members of AQTAC questioned the necessity of paragraph (6), which requires that the owner or operator maintain records of the volume used of each of the regulated products. These members suggested that keeping records of small quantities of miscellaneous product use and keeping records of materials used as opposed to materials purchased would be unnecessary and burdensome. These members questioned who should keep records for materials used by outside contractors (for example, roofers and piping contractors). They suggested either revising

paragraph (6) to require records of volume of product "purchased" instead of volume of product "used," or deleting paragraph (6). They suggested that a certification that compliant products were used would suffice. Other members of AQTAC thought paragraph (6) should remain intact because of the information it would provide about actual emissions. The Board seeks comment on the alternative approaches suggested by members of AQTAC.

Proposed § 129.77(q) provides recordkeeping requirements for the person conducting testing on products that are subject to the laboratory testing exemption.

Proposed § 129.77(r) specifies that all records made to determine compliance with this section shall be maintained on site for at least 5 years from the date the record is created and made available to the Department upon request.

Proposed § 129.77(s) specifies, with certain exceptions, that the VOC and solids content of all nonaerosol adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents and cleanup solvents shall be determined using either EPA Reference Method 24 or SCAQMD Method 304, including updates and revisions.

Proposed § 129.77(t) specifies that the identity and concentration of exempt organic compounds shall be determined using either ASTM D4457 or SCAQMD Method 303, including updates and revisions.

Proposed § 129.77(u) specifies that the VOC content of a plastic cement welding adhesive or primer shall be determined using SCAQMD Method 316A, including updates and revisions.

Proposed § 129.77(v) specifies that to determine if a diluent is a reactive diluent, the percentage of the reactive organic compound that becomes an integral part of the finished material shall be determined using SCAQMD Method 316A, including updates and revisions.

Proposed § 129.77(w) specifies the procedure for determining the composite vapor pressure of organic compounds in cleaning materials.

Proposed § 129.77(x) specifies that the vapor pressure of each component in the cleaning material subject to the requirement of § 129.77(w) may be determined from either ASTM 2879 or one or more of the listed references, including updates and revisions.

Proposed § 129.77(y) specifies that if air pollution control equipment is used to meet the requirements of this section, the owner or operator shall determine the capture efficiency and the control efficiency using certain procedures.

Proposed § 129.77(z) specifies that the active and passive solvent losses from spray gun cleaning systems shall be determined using the SCAQMD method, *General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems*, including updates and revisions.

Proposed § 129.77(aa) specifies the method for calculating the VOC content of adhesive, sealant, adhesive primer or sealant primer products that do not contain reactive diluents.

Proposed § 129.77(bb) specifies the method for calculating the VOC content for adhesive, sealant, adhesive primer or sealant primer products that contain reactive diluents.

Proposed § 129.77(cc) specifies the method for calculating the VOC content for low-solids adhesive, sealant, adhesive primer or sealant primer products.

Proposed § 129.77(dd) specifies the method for calculating percent VOC by weight.

Proposed § 129.77(ee) specifies how to convert from units of grams per liter to units of pounds per gallon.

Proposed § 129.77, Table V lists the VOC content limits for the regulated adhesives, sealants, adhesive primers and sealant primers, as applied.

Proposed § 129.77, Table VI lists the VOC content limits for adhesive or sealant products applied to particular substrates, as applied.

Proposed § 130.701 (relating to applicability) of Chapter 130, Subchapter D, establishes that, except as provided in § 130.703 (relating to exemptions and exceptions), this new subchapter applies to a person who, on or after April 15, 2010, sells, supplies, offers for sale, manufactures for sale, or uses or applies for compensation, in this Commonwealth, an adhesive, sealant, adhesive primer or sealant primer subject to the requirements of this subchapter.

Proposed § 130.702(a) (relating to emission standards) establishes that on and after April 15, 2010, except as provided in § 130.703 (relating to exemptions and exceptions), a person may not sell, supply, offer for sale or manufacture for sale for use in this Commonwealth an adhesive, sealant, adhesive primer or sealant primer manufactured on or after April 15, 2010, which contains VOCs in excess of the applicable VOC content limits specified in Table I (relating to VOC content limits for adhesives, sealants, adhesive primers and sealant primers, as applied) of § 130.702.

Proposed § 130.702(a) also establishes that on and after April 15, 2010, except as provided in § 130.703, a person may not sell, supply, offer for sale or manufacture for sale for use in this Commonwealth an adhesive or sealant product manufactured on or after April 15, 2010, applied to particular substrates, which contains VOCs in excess of the applicable VOC content limits in Table II (relating to VOC content limits for adhesive or sealant products applied to particular substrates, as applied) of § 130.702.

Proposed § 130.702(b) establishes that on and after April 15, 2010, except as provided in § 130.703, a person may not use or apply for compensation within this Commonwealth an adhesive, sealant, adhesive primer or sealant primer which contains VOCs in excess of the applicable VOC content limits specified in Table I or an adhesive or sealant product applied to particular substrates manufactured on or after April 15, 2010, which contains VOCs in excess of the applicable VOC content limits in Table II.

Proposed § 130.702(c) describes how the VOC content limits in Table II will apply.

Proposed § 130.702(d) establishes additional requirements for persons using a surface preparation solvent or cleanup solvent.

Proposed § 130.702(e) establishes the methods that must be followed for removing adhesive, sealant, adhesive primer or sealant primer from the parts of spray application equipment.

Proposed § 130.702(f) establishes that a person using a product subject to this subchapter shall store or dispose of all absorbent materials, including cloth or paper, which are moistened with adhesives, sealants, primers or solvents subject to this subchapter in non-absorbent containers that are kept closed except when placing materials in or removing materials from the container.

Proposed § 130.702(g) establishes that a person may not solicit, require the use of or specify the application of a product subject to this subchapter if the use or application would result in a violation of this subchapter.

Proposed § 130.702(h) specifies that a person who applies or solicits the application of an adhesive, sealant, adhesive primer or sealant primer subject to this subchapter may not add solvent to the adhesive, sealant, adhesive primer or sealant primer in an amount in excess of the manufacturer's recommendation for application, if this additional solvent causes the product to exceed the applicable VOC content limit listed in Tables I or II.

Proposed § 130.702, Table I lists the VOC content limits for the regulated adhesives, sealants, adhesive primers and sealant primers, as applied.

Proposed § 130.702, Table II lists the VOC content limits for the regulated adhesive or sealant products applied to particular substrates, as applied.

Proposed § 130.703 (relating to exemptions and exceptions) provides certain exemptions from the requirements of proposed Subchapter D. Proposed subsection (a) provides exemptions for products being tested or evaluated in a research and development, quality assurance or analytical laboratory, if records are maintained as required in § 130.704 (relating to recordkeeping requirements); products that are subject to certain other Department regulations; adhesives and sealants that contain less than 20 grams of VOC per liter of adhesive or sealant, less water and less exempt compounds, as applied; cyanoacrylate adhesives; adhesives, sealants, adhesive primers or sealant primers that are sold or supplied by the manufacturer or supplier in containers with a net volume of 16 fluid ounces or less, or a net weight of one pound or less, except plastic cement welding adhesives and contact adhesives; and contact adhesives that are sold or supplied by the manufacturer or supplier in containers with a net volume of one gallon or less.

Proposed § 130.703(b) provides exemptions from the requirements of proposed Subchapter D for the use of adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents and cleanup solvents in certain operations, including tire repair operations, if the label of the tire repair adhesive states, "For tire repair only;" the assembly, repair and manufacture of aerospace components or undersea-based weapon systems; the manufacture of medical equipment; and certain plaque laminating operations.

Proposed § 130.703(c) provides a schedule and a phase-in period for the use and application of compliant single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant and single-ply roof membrane adhesive primer to address rubber roofing adhesive curing issues during the colder months of the year. This phase-in strategy is provided for the same reasons as those described above regarding proposed § 129.77(m).

Proposed § 130.703(d) provides an exemption for the sale, supply, offer for sale and manufacture of single-ply roof membrane adhesives, sealants and primers prior to January 1, 2012. This proposed exemption is premised upon adoption of the phase-in strategy in proposed subsection (c).

Proposed § 130.703(e) provides an exemption from many of the requirements of proposed § 130.702 if the total VOC emissions from all adhesives, sealants, adhesive primers and sealant primers used at the facility are less than 200 pounds or an equivalent volume, per calendar year. An owner or operator claiming exemption under this subsection shall record and maintain operational records sufficient to demonstrate compliance with this exemption. An identical exemption is established in § 129.77(n) of this proposed rulemaking. The Board seeks comment on the suitability of including this exemption in Subchapter D, which applies to persons who sell, supply, offer for sale or manufacture for sale, and persons who use or apply for compensation, the regulated products.

Proposed § 130.703(f) provides an exemption for the use of a noncomplying adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent if the total volume of noncomplying products applied facility-wide does not exceed 55 gallons per calendar year. An owner or operator claiming exemption under this subsection shall record and maintain operational records sufficient to demonstrate compliance with this exemption. An identical exemption is established in § 129.77(o) of this proposed rulemaking. The Board seeks comment on the suitability of including this exemption in Subchapter D, which applies to persons who sell, supply, offer for sale or manufacture for sale, and persons who use or apply for compensation, the regulated products.

Proposed § 130.703(g) provides an exemption for an adhesive, sealant, adhesive primer or sealant primer product if the manufacturer or distributor keeps records demonstrating that the product is intended for shipment and use outside of this Commonwealth and that the manufacturer or distributor has taken reasonably prudent precautions to assure that the product is not distributed to or within this Commonwealth.

Proposed § 130.703(h) precludes the exercise of the exemption provided in subsection (g) for an adhesive, sealant, adhesive primer or sealant primer product sold, supplied or offered for sale by a person to a retail outlet in this Commonwealth.

Proposed § 130.703(i) specifies that the requirements of Subchapter D do not apply to an adhesive, sealant, adhesive primer or sealant primer product that is sold or supplied for use or application at a facility subject to the requirements of § 129.77.

Proposed § 130.703(j) specifies that the provisions of §§ 130.704 and 130.705 (relating to compliance procedures and test methods) do not apply to the use of an adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent at a private residence for a non-commercial purpose.

Proposed § 130.704 specifies that on and after April 15, 2010, a person who sells, supplies, offers for sale, manufactures for sale, uses or applies in this Commonwealth an adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent product subject to this subchapter shall maintain records demonstrating compliance with this subchapter, including certain information. This section also specifies that all records made to determine compliance with this section shall be maintained on site for at least 5 years from the date the record is created and made available to the Department upon request.

Several members of AQTAC questioned the necessity of § 130.704(b)(6), which requires that the owner or operator maintain records of the volume used of each of the regulated products. These members suggested that keeping records of small quantities of miscellaneous product use and keeping records of materials used as opposed to materials purchased would be unnecessary and burdensome. These members questioned who should keep records for materials used by outside contractors (for example, roofers and piping contractors). They suggested either revising paragraph (6) to require records of volume of product "purchased" instead of volume of product "used", or deleting paragraph (6). They suggested that a certification that compliant products were used would suffice. Other members of AQTAC thought paragraph (6) should remain intact because of the information it would provide about actual emissions. The Board seeks comment on the alternative approaches suggested by members of AQTAC.

Proposed § 130.705 specifies the compliance procedures, test methods and calculations that shall be used to determine the VOC, solids content and exempt organic compound content of adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents and cleanup solvents subject to the requirements of this subchapter.

Proposed § 130.706 (relating to container labeling) specifies that on and after April 15, 2010, each manufacturer of an adhesive, sealant, adhesive primer or sealant primer product subject to this subchapter shall display certain information on the product container or label.

Consistent with the OTC 2006 Model Rule, the proposed rulemaking does not include a date-coding requirement. This presents problems for tracking the sale and use of product manufactured before the proposed regulatory compliance date of April 15, 2010. The Board seeks comment on whether the final-form regulation should include a date-coding requirement to facilitate enforcement of the regulation and the sale and use of product manufactured before the proposed compliance date of April 15, 2010 (sell-through and use-through). The Department will also consult with other OTR states on this issue.

F. Benefits, Costs and Compliance

Benefits

The citizens of this Commonwealth will be the major benefactors from this proposed rulemaking through reduced exposure to a variety of solvents, including hazardous air pollutants (HAPs), that are used in a variety of adhesive, sealant, adhesive primer and sealant primer products. These amendments will result in improved air quality by reducing VOC ozone precursor emissions from the industrial and commercial use and application of the regulated adhesive, sealant and primer products. Benefits will also occur from reduced VOC content in surface preparation solvent and cleanup solvent products. The proposed amendments will encourage the implementation of new technologies and practices, which will reduce emissions of VOCs and HAPs throughout this Commonwealth.

Compliance Costs

The cost of complying with the new requirements includes the cost of using or developing alternative product formulations, including product formulations for low-VOC or water-based adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent and cleanup solvent products. Based on information provided by the Ventura County Air Pollution Control District (VCAPCD), the CARB determined that the cost-effectiveness of the VCAPCD adhesives rule, which formed the basis of the CARB 1998 RACT/BARCT Determination upon which the OTC 2006 Model Rule is based, ranges from a savings of \$1,060 per ton to a cost of \$2,320 per ton of VOC reduced. Any costs are likely to be less in the OTR, because some of the research and reformulation costs incurred for products sold in California will not have to be incurred again for products sold in the OTR. The CARB also reports a cost-effectiveness of \$9,000 to \$110,000 per ton of VOC reduced should the use of add-on control equipment to comply with the requirements be necessary.

The Department anticipates similar costs in this Commonwealth. MACTEC Federal Programs, a consultant to the OTC, indicated in its report, "Identification and Evaluation of Candidate Control Measures, Final Technical Support Document," that the requirements of the OTC Adhesives, Sealants and Primers Model Rule would reduce emissions of VOC by approximately 21.8 tons per summer day (tpsd) in Pennsylvania. Ozone monitoring season (April 1 through October 31) VOC emission reductions from this rulemaking would be approximately 4,665.2 tons (21.8 tpsd x 214 ozone monitoring season days). Assuming that there are approximately 12 million people living in Pennsylvania, the average ozone season VOC emissions reduction is calculated to be 0.78 pound of VOC emissions reduced per Pennsylvania resident.

The total ozone monitoring season costs are calculated by multiplying the maximum estimated cost of \$2,320 per ton of VOC emissions reduced times 4,665.2 tons per ozone monitoring season, which equals approximately \$10,823,264 per ozone monitoring season. The maximum ozone monitoring season cost per Pennsylvania resident would be approximately \$0.90.

Annual VOC emission reductions from this rulemaking would be approximately 7,957 tons (21.8 tpsd x 365 days per year) or 1.3 pounds of VOC emissions reduced per Pennsylvania resident

per year. Annual costs would be \$2,320 per ton of VOC emissions reduced times 7,957 tons per year or \$18,460,000. The maximum annual cost per Pennsylvania resident would be approximately \$1.55.

Cost savings could be incurred if reformulated products are less expensive, with the possibility that Pennsylvania residents could realize savings of \$0.41 per ozone season per resident (\$1,060 x 4,665.2 tons divided by 12,000,000 residents) or \$0.70 annually per resident (\$1,060 x 7,957 tons divided by 12,000,000 residents).

Owners or operators of facilities or stationary sources using regulated adhesive, sealer, primer and solvent products could incur costs of \$9,000 to \$110,000 per ton of VOC emissions reduced, should the use of add-on control equipment be necessary to comply with the requirements of this rulemaking, based on CARB estimates. However, fewer than 40 facilities in this Commonwealth are expected to be required to comply with this rulemaking. Most of the affected facilities already have permits that establish requirements for the use of the adhesive, sealant, primer and solvent products proposed for regulation in this rulemaking.

Compliance Assistance Plan

The Department plans to educate and assist the public and regulated community in understanding the newly revised requirements and how to comply with them. This will be accomplished through the Department's ongoing Regional Compliance Assistance Program.

Paperwork Requirements

The proposed rulemaking includes recordkeeping and reporting requirements in § 129.77 for affected owners and operators of facilities that use or apply the regulated adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent and cleanup solvent products. These recordkeeping requirements include keeping lists of each regulated product in use or in storage; a data sheet or material list for each product that provides the name of the product, manufacturer's identification, and use for the product; the VOC content for the product as supplied; the catalysts, reducers or other components used and the mix ratio; the VOC content or vapor pressure of each product as applied, if solvent or other VOC is added to the product before application; and the volume used of each product.

For an adhesive, sealant, adhesive primer and sealant primer product subject to the laboratory testing exemption, the person conducting the testing shall make and maintain records of all products used, including the following information: the product name; the product category of the material or type of application; and the VOC content of the material.

All records made to determine compliance with § 129.77 shall be maintained on site for at least 5 years from the date the record is created and made available to the Department upon request.

The proposed rulemaking includes recordkeeping and reporting requirements in Chapter 130, Subchapter D for a person who sells, supplies, offers for sale or manufactures for sale for use in this Commonwealth an adhesive, sealant, adhesive primer, sealant primer, surface preparation

solvent or cleanup solvent product subject to this subchapter. The person shall maintain records demonstrating compliance with this subchapter, including the following information: a data sheet or material list which provides the material name, manufacturer identification and material application for each product; the VOC content of each product, as supplied; and the number of gallons of product sold in this Commonwealth.

A person who uses or applies an adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent product subject to Subchapter D shall maintain records demonstrating compliance with this subchapter, including the following information: a list of each adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent and cleanup solvent product in use and in storage; a data sheet or material list which provides the product name, manufacturer identification and use or material application for each product included on the list; the VOC content of each product on the list, as supplied; catalysts, reducers or other components used and the mix ratio; the VOC content or vapor pressure of each product on the list, as applied, if solvent or other VOC is added to the product before application; and the volume used of each product on the list.

For an adhesive, sealant, adhesive primer and sealant primer product subject to the laboratory testing exemption of § 130.703(a)(1), the person conducting the testing shall make and maintain records of all materials used, including the following information: the product name; the product category of the material or type of application; and the VOC content of the material.

All records made to determine compliance with Chapter 130, Subchapter D shall be maintained for at least 5 years from the date the record is created and made available to the Department upon request.

G. Pollution Prevention

The Federal Pollution Prevention Act of 1990 established a National policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally friendly materials, more efficient use of raw materials, and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to facilities that permanently achieve or move beyond compliance. This regulation has incorporated the following pollution prevention incentives:

The proposed amendments will assure that the citizens and the environment of this Commonwealth experience the benefits of reduced emissions of VOCs and HAPs from the industrial and commercial use or application of low-VOC adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent and cleanup solvent products. Although the proposed requirements are to address ground-level ozone air quality by reducing emissions of ozone precursors, the reformulation of products to meet the VOC content limits will also result in the reduction of HAP emissions. The proposed regulations will result in improved indoor and outdoor air quality for all citizens of this Commonwealth by reducing VOC ozone precursor emissions and HAP compounds. The reduced levels of HAPs will also benefit water quality through reduced

loading on water treatment plants and in reduced quantities of HAP compounds in spillage on the ground.

H. Sunset Review

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.

I. Regulatory Review

In accordance with Section 5(a) and (f) of the Regulatory Review Act (71 P.S. §§ 745.1—745.15), the Department submitted a copy of the proposed amendments, on _____, to the Legislative Reference Bureau for publication of notice of proposed rulemaking in the *Pennsylvania Bulletin*, and to the Independent Regulatory Review Commission (Commission). In accordance with Section 5(f) of the Act (71 P. S. § 745.5(f)), the Department will submit the proposed regulations and the required material to the Chairpersons of the House Environmental Resources and Energy Committee and the Senate Environmental Resources and Energy Committee (Committees) no later than the second Monday after the date by which both Committees designations have been published in the *Pennsylvania Bulletin*. In addition to submitting the proposed amendments, the Department has provided the Commission and will provide the Committees with a copy of a detailed Regulatory Analysis Form. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRRC may convey any comments, recommendations or objections to the proposed rulemaking within 60 days after the close of the public comment period. The comments, recommendations or objections shall specify the regulatory review criteria that have not been met. The Regulatory Review Act specifies detailed procedures for review of these issues by the Department, the General Assembly and the Governor prior to final publication of the regulations.

J. Public Comments

Written Comments - Interested persons are invited to submit comments, suggestions or objections regarding the proposed rulemaking to the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301). Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Board by (blank) (within 60 days of publication in the *Pennsylvania Bulletin*). Interested persons may also submit a summary of their comments to the Board. The summary may not exceed one page in length and must also be received by (blank) (within 60 days of publication in the *Pennsylvania Bulletin*). The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the final regulation will be considered.

Electronic Comments - Comments may be submitted electronically to the Board at RegComments@state.pa.us and must also be received by the Board by (date) (within 60

days of publication in the *Pennsylvania Bulletin*). A subject heading of the proposal and a return name and address must be included in each transmission. If an acknowledgement of electronic comments is not received by the sender within 2 working days, the comments should be retransmitted to the Department to ensure receipt.

K. Public Hearings

The Board will hold three public hearings for the purpose of accepting comments on this proposed rulemaking. The hearings will be held as follows:

_____ (blank) _____
_____ (blank) _____
_____ (blank) _____

Persons wishing to present testimony at a hearing are requested to contact the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477, (717) 787-4526, at least 1 week in advance of the hearing to reserve a time to present testimony. Oral testimony is limited to 10 minutes for each witness. Witnesses are requested to submit three written copies of their oral testimony to the hearing chairperson at the hearing. Organizations are limited to designating one witness to present testimony on their behalf at each hearing.

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

BY:

JOHN HANGER
Acting Chairperson
Environmental Quality Board