

Regulatory Analysis Form

(Completed by Promulgating Agency)



SECTION I: PROFILE

(1) Agency:

Environmental Protection

(2) Agency Number:

Identification Number: #7-428

IRRC Number:

2755

(3) Short Title:

Adhesives, Sealants, Primers and Solvents

(4) PA Code Cite:

25 Pa. Code Chapters 121, 129 and 130

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

Primary Contact: Michele Tate, 783-8727

Secondary Contact: Kelly J. Heffner, 783-8727

(6) Primary Contact for Public Comments (List Telephone Number, Address, Fax Number and Email Address) – Complete if different from #5:

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Bureau of Regulatory Counsel
Department of Environmental Protection
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Harrisburg, PA 17105-8464
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(All Comments will appear on IRRC'S website)

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

Proposed Regulation

Final Regulation

Final Omitted Regulation

Emergency Certification Regulation;

Certification by the Governor

Certification by the Attorney General

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

The proposed rulemaking would add § 129.77 (relating to control of emissions from the use or application of adhesives, sealants, primers and solvents) to Chapter 129 (relating to standards for sources) to adopt emission standards, volatile organic compound (VOC) content limits and requirements for the use or application of surface preparation and cleanup solvents ("solvents") and 37 categories of adhesive, sealant, adhesive primer or sealant primer products or adhesive or sealant products applied to particular substrates ("products"). The provisions would apply to the owner or operator of a facility or stationary source that uses or applies at the facility, on or after April 15, 2010, a regulated product or solvent.

The proposal would add Subchapter D (relating to adhesives, sealants, primers and solvents) to Chapter 130 (relating to standards for products), to adopt emission standards, VOC content limits and requirements for the sale, supply, offer for sale, manufacture, use or application of regulated products and solvents. The provisions would apply to a person who, on or after April 15, 2010, sells, supplies, offers for sale or manufactures for sale a regulated product or solvent for use or application in this Commonwealth or uses or applies, for compensation, a regulated product or solvent in this Commonwealth.

The proposed rulemaking would add definitions to Chapter 121 (relating to general provisions) for 56 new terms, including those that relate to the product categories that would be regulated under the requirements added to Chapters 129 and 130 and would amend definitions for nine existing terms to provide clarity.

The proposed rulemaking would be consistent with regulatory initiatives recommended by the Ozone Transport Commission (OTC). The proposed rulemaking, when adopted by the Environmental Quality Board (Board) as a final-form rulemaking, would be submitted to the US Environmental Protection Agency (EPA) as a revision to the State Implementation Plan (SIP).

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

- | | |
|---|--|
| A. The date by which the agency must receive public comments: | <u>June 8, 2009</u> |
| B. The date or dates on which public meetings or hearings will be held: | <u>May 4, 7, 8, 2009</u> |
| C. The expected date of promulgation of the proposed regulation as a final-form regulation: | <u>1st Quarter 2010</u> |
| D. The expected effective date of the final-form regulation: | <u>1st Quarter 2010</u> |
| E. The date by which compliance with the final-form regulation will be required: | <u>April 15, 2010</u>
<i>(as currently proposed in Annex A)</i> |
| F. The date by which required permits, licenses or other approvals must be obtained: | <u>N/A</u> |

SECTION II: STATEMENT OF NEED

(10) Provide the schedule for continual review of the regulation.

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.

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

Statutory authority for this action comes from Section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth; Section 5(a)(8) of the APCA (35 P.S. § 4005(a)(8)), which grants the Board the authority to adopt rules and regulations designed to implement the provisions of the Clean Air Act; and from Section 4.2 of the APCA, which authorizes the Board to adopt regulations more stringent than Federal requirements when the control measures are reasonably necessary to achieve and maintain the ambient air quality standards (35 P.S. § 4004.2).

(12) 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.

The proposed regulation is not mandated by law, court order or regulation. While there are Federal VOC content limits for some adhesive and sealant products in 40 CFR Part 59, Subpart C (relating to National volatile organic compound emission standards for consumer products), there are no Federal limits for the products that will be subject to regulation under this proposed rulemaking.

This proposed rulemaking is based on control measures recommended by the OTC in its 2006 Model Rule for adhesives, sealants and primers, which is based on the 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 developed in 1998. The CARB prepared the RACT/BARCT determination to aid California's air districts in developing regulations to attain and maintain the ozone NAAQS. The Department has reviewed the OTC 2006 Model Rule and the CARB RACT/BARCT determination for their applicability to the ozone reduction measures necessary for this Commonwealth. The measures in the proposed rulemaking are reasonably necessary to achieve and maintain the health-based 8-hour ozone NAAQS in this Commonwealth.

(13) 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.

Certain areas of this Commonwealth continue to exceed the health-based 8-hour NAAQS for ozone. When ground-level ozone is present in concentrations in excess of the Federal health-based standards, public health is adversely affected. Ozone exposure correlates to increased respiratory disease and

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(13 continued) 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.

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 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. High levels of ozone can also affect animals in similar ways as humans, and damage plants and reduce agricultural yields by destroying chlorophyll. The implementation of additional measures to address ozone air quality nonattainment in this Commonwealth is necessary to protect the public health and welfare, animal health and welfare and the environment.

The continued industrial and commercial use in this Commonwealth of adhesive, sealant, primer and solvent products containing high levels of VOCs, particularly during the months of April to October, will continue to contribute to high levels of ambient ozone that cause and exacerbate respiratory ailments suffered by the citizens of this Commonwealth. Implementation of the VOC content limits for the solvents and products included in the proposed rulemaking is anticipated to provide additional VOC emission reductions of 21.8 tons per summer day (tpsd) beginning with the 2010 ozone monitoring season. These additional reductions in VOC emissions are reasonably necessary to achieve and maintain the Federal health-based ozone standard in this Commonwealth. These additional VOC reductions would also provide support to the 8-hour ozone attainment demonstration for the Philadelphia Area and the attainment demonstration that must be developed expeditiously for the Pittsburgh-Beaver Valley Area. The proposed amendments would also provide additional reductions to support the maintenance plans for areas recently redesignated to attainment of the 8-hour ozone health-based standard. The proposed amendments are consistent with regulatory initiatives that will be undertaken by other jurisdictions in the Ozone Transport Region to address regional transport of ozone precursor emissions.

Additionally, on March 27, 2008, the EPA promulgated a revised 8-hour ozone standard of 0.075 ppm, down from 0.08 ppm, which increases the need for the Commonwealth to secure additional ozone precursor emission reductions.

Implementation of the proposed control measure would benefit human and animal residents, and the crops, vegetation and natural areas, of this Commonwealth through reductions of emissions of VOCs and hazardous air pollutants (HAP) by requiring that adhesive, sealant, primer and solvent products sold, supplied, offered for sale, manufactured for sale, used or applied in this Commonwealth meet specified limits for VOC content. The reduced levels of HAPs would also benefit water quality through reduced loading on water treatment plants and in reduced quantities of HAP compounds leaching into the ground.

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(14) If scientific data, studies or references are used to justify this regulation, please submit material with the regulatory package. Please provide full citation and/or links to internet source.

The Low-Slope Commercial Roofing Industry in the Northeast United States and the Ozone Transport Commission Model Rule for Adhesives and Sealants: A Study of Risks and Options for Effective Implementation. Prepared for the EPDM Roofing Association For submission to the Pennsylvania Department of Environmental Protection, April 21, 2008. Copyright 2008 TEGNOS Research, Inc.

(15) Describe who and how many will be adversely affected by the regulation. How are they affected?

The proposed rulemaking would affect sources under permit by the Department (point sources) as well as operations not subject to permits by the Department (area sources). About 96% of VOC emissions from the industrial and commercial use or application of affected adhesive, sealant and primer products in the OTC states fall into the "area source" category.

The proposed adhesive, sealant, primer and solvent amendments would affect manufacturers, distributors, retailers, purchasers and users of the regulated products. Commercial users and applicators that are not currently regulated would most likely use complying products and would not be disadvantaged by the proposed rulemaking. The retailers, distributors and manufacturers of the regulated adhesive, sealant, primer and solvent products are familiar with existing regulatory programs for consumer product categories and would not be disadvantaged by the proposed rulemaking.

There are approximately 40 existing industrial facilities that would potentially be affected by § 129.77 of the proposed rulemaking, including footwear, organ, home construction product, furniture and elevator manufacturers. Industrial users and applicators of the regulated product categories could choose either to use complying products or to control emissions from noncomplying products with the use of add-on air pollution controls. Most of the affected facilities already have permits that establish limits for the use of the affected products.

The requirements of Chapter 130, Subchapter D, would affect sellers, suppliers, manufacturers, users and applicators of regulated products. This would include plumbers, roofers, window and automotive glass installers, home builders and remodelers, construction companies, landscapers, boat builders, ceramic tile installers and vinyl flooring installers. The total number of affected sellers, suppliers, manufacturers, users and applicators of regulated products is unknown.

The proposed addition of § 129.77 and Chapter 130, Subchapter D, may slightly increase costs to purchasers and users of complying adhesive, sealant, primer and solvent products, but the cost increase is expected to be negligible because much of the reformulation of products has been completed as manufacturers developed products to meet these limits in other states. There may be cost savings in some cases with product substitution. The CARB determined that the cost-effectiveness of its adhesives rule ranges from a savings of \$1,060 per ton to a cost of \$2,320 per ton of VOC emissions reduced.

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(16) List the persons, groups or entities that will be required to comply with the regulation. Approximate the number of people who will be required to comply.

Owners and operators of facilities that use or apply adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents or cleanup solvents subject to the emission standards in proposed § 129.77, Table V (relating to VOC content limits for adhesives, sealants, adhesive primers and sealant primers), Table VI (relating to VOC content limits for adhesive or sealant products applied to particular substrates), or § 129.77(e) and (f), would be required to comply with the requirements in § 129.77. Fewer than 40 facilities are expected to be required to comply. Most of the affected facilities already have permits that establish limits for the use of the affected products.

A person who sells, supplies, offers for sale or manufactures for sale in this Commonwealth an adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent product subject to the emission standards in proposed § 130.702 (relating to emission standards) would be required to comply with the requirements.

A person who uses or applies for compensation in this Commonwealth an adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent subject to the emission standards in proposed § 130.702 would be required to comply with the requirements. This would include plumbers, roofers, window and automotive glass installers, home builders and remodelers, construction companies, landscapers, boat builders, ceramic tile installers and vinyl flooring installers.

The total number of affected sellers, suppliers, manufacturers, users and applicators of regulated products is unknown.

SECTION III: COST AND IMPACT ANALYSIS

(17) 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 costs of complying with the new requirements includes the cost of using alternative product formulations, including low-VOC or water-based adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent and cleanup solvent products. Based on information provided by the 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 emissions reduced. Cost savings would be possible if substituted products are less expensive. These costs are likely to be less in the OTR, because some of the research and reformulation costs incurred for products sold in California would not have to be incurred again for the same products sold in the OTR.

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 2006 Adhesives and Sealants Model Rule would reduce emissions of VOC by approximately 21.8 tpsd in Pennsylvania.

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(17 continued) 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.

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 monitoring 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 monitoring 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 adhesive, sealant and primer 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 and primer products proposed in this rulemaking.

(18) 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 proposed rulemaking is expected to impose no additional direct regulatory costs on local governments.

If a local government purchases affected adhesive, sealant, primer or solvent products, however, additional costs or savings commensurate with those for the private sector may be experienced.

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(19) 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.

To the extent that state government purchases affected adhesive, sealant, primer or solvent products, costs or savings will be commensurate with those the private sector will experience.

Nominal costs will be experienced by the Commonwealth to assist in providing training, outreach and assistance to the regulated community. No new staff resources are anticipated to be necessary.

(20) 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 08/09 ozone season (Jul – Oct)	FY +1 Year 09/10 ozone season	FY +2 Year 10/11 ozone season	FY +3 Year 11/12 ozone season	FY +4 Year 12/13 ozone season	FY +5 Year 13/14 ozone season (April – June)
SAVINGS:						
Regulated Community	0.00	0.00	0.00	0.00	0.00	0.00
Local Government	0.00	0.00	0.00	0.00	0.00	0.00
State Government	0.00	0.00	0.00	0.00	0.00	0.00
Total Savings	0.00	0.00	0.00	0.00	0.00	0.00
COSTS:	(Per ozone monitoring season of April 1 through October 31)					
Regulated Community	6,184,722	10,823,264	10,823,264	10,823,264	10,823,264	6,184,722
Local Government	0.00	0.00	0.00	0.00	0.00	0.00
State Government	0.00	0.00	0.00	0.00	0.00	0.00
Total Costs	6,184,722	10,823,264	10,823,264	10,823,264	10,823,264	6,184,722
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

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(20a) Provide the past three year expenditure history for programs affected by the regulation.

Program	FY-3 (05/06)	FY-2 (06/07)	FY-1 (07/08)	Current FY (08/09)
Clean Air Fund Mobile and Area Facilities (233-20084)	\$8,231,000	\$12,863,000	\$8,505,000	\$9,613,000
Environmental Program Management (161-10382)	\$37,049,000	\$36,868,000	\$39,909,000	\$41,800,000
Clean Air Fund Major Emission Facilities (215-20077)	\$24,290,000	\$26,218,000	\$23,872,000	\$24,053,000

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

Implementation of this VOC emission reduction measure is reasonably necessary in this Commonwealth to achieve and maintain the health-based 8-hour ozone NAAQS. The proposed amendments would also reduce ambient outdoor and indoor concentrations of HAPs. The potential annual cost of \$1.55 per resident is negligible compared to the improved health and environmental benefits that would be gained from this measure.

(22) Describe the communications with and input from the public and any advisory council/group in the development and drafting of the regulation. List the specific persons and/or groups who were involved.

The staff of the OTC and Member States and 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. Based on the analysis by the workgroup, the OTC Commissioners at the OTC Commissioners' meetings of June and November 2006 made recommendations to the OTC Member Jurisdictions to consider emission reductions from the sale, offer for sale, supply, manufacture, industrial use and commercial application of solvent-based adhesives, sealants and primers. 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 rulemaking.

The Ethylene Propylene Diene Membrane (EPDM) Roofing Association (ERA) objected to the OTC 2006 Model Rule VOC content limit for single-ply roofing membrane installation adhesive of 250 grams per liter. The ERA asserts that compliance with the OTC 2006 Model Rule VOC content limit of 250 grams per liter is not currently possible in the colder months, as roofing adhesives meeting this limit do not properly cure at temperatures below 40°F. The Department discussed the information the ERA provided with the OTC and OTC Member States. In the proposed rulemaking, the Department is proposing a phase-in period for the use of compliant products to meet the ERA's concerns. 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. The phase-in strategy is proposed in order to

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(22 continued) Describe the communications with and input from the public and any advisory council/group in the development and drafting of the regulation. List the specific persons and/or groups who were involved.

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.

The concepts of the proposed rulemaking were discussed with the Air Quality Technical Advisory Committee (AQTAC, Committee) at its March 27, 2008, meeting, the Citizens Advisory Council (CAC) at its April 15, 2008, meeting and the Small Business Compliance Advisory Committee at its April 23, 2008, meeting. The proposed rulemaking was discussed with the AQTAC on May 23, 2008. The AQTAC unanimously concurred with the Department's recommendation to seek Board 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 proposed rulemaking specifically asks for comment on the recordkeeping and roofing industry issues. In addition, the proposed rulemaking was discussed with the CAC on May 20, 2008.

(23) 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.

There are no alternative regulatory provisions available that will achieve the needed level of emission reductions from the affected adhesive, sealant, primer and solvent categories.

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

There are no Federal limits for the additional products that would be regulated by this proposed rulemaking. The Commonwealth's proposed rulemaking would regulate 37 adhesive, sealant, adhesive primer and sealant primer product categories, surface preparation solvents and cleanup solvents.

The additional VOC emission reductions that would result from the proposed amendments will help reduce ambient levels of ozone precursors and protect public health and welfare. This proposed rulemaking is reasonably necessary as part of the Commonwealth's efforts to achieve and maintain the health-based 8-hour NAAQS for ozone. Additionally, the proposed amendments would provide additional reductions of VOC emissions to meet the revised 8-hour ozone standard of 0.075 ppm, down from 0.08 ppm, promulgated by the EPA on March 27, 2008.

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

The proposed amendments are part of a regional strategy for the Commonwealth and other OTC Member Jurisdictions (12 states and the District of Columbia) to implement to achieve and maintain the health-based 8-hour ozone NAAQS. This regional strategy would enable manufacturers to produce a single product for the region rather than having to deal with a potential "patchwork" of programs.

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

Pennsylvania industry and commercial businesses would not be put at a disadvantage by the proposed amendments. Manufacturers and sellers of regulated products would be able to continue to market existing noncomplying products outside of this Commonwealth, but would be subject to the same requirements as other manufacturers and sellers for products that are produced for the Pennsylvania market. Users and applicators of these products would be able to buy compliant products easily because of the regional nature of the regulation.

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

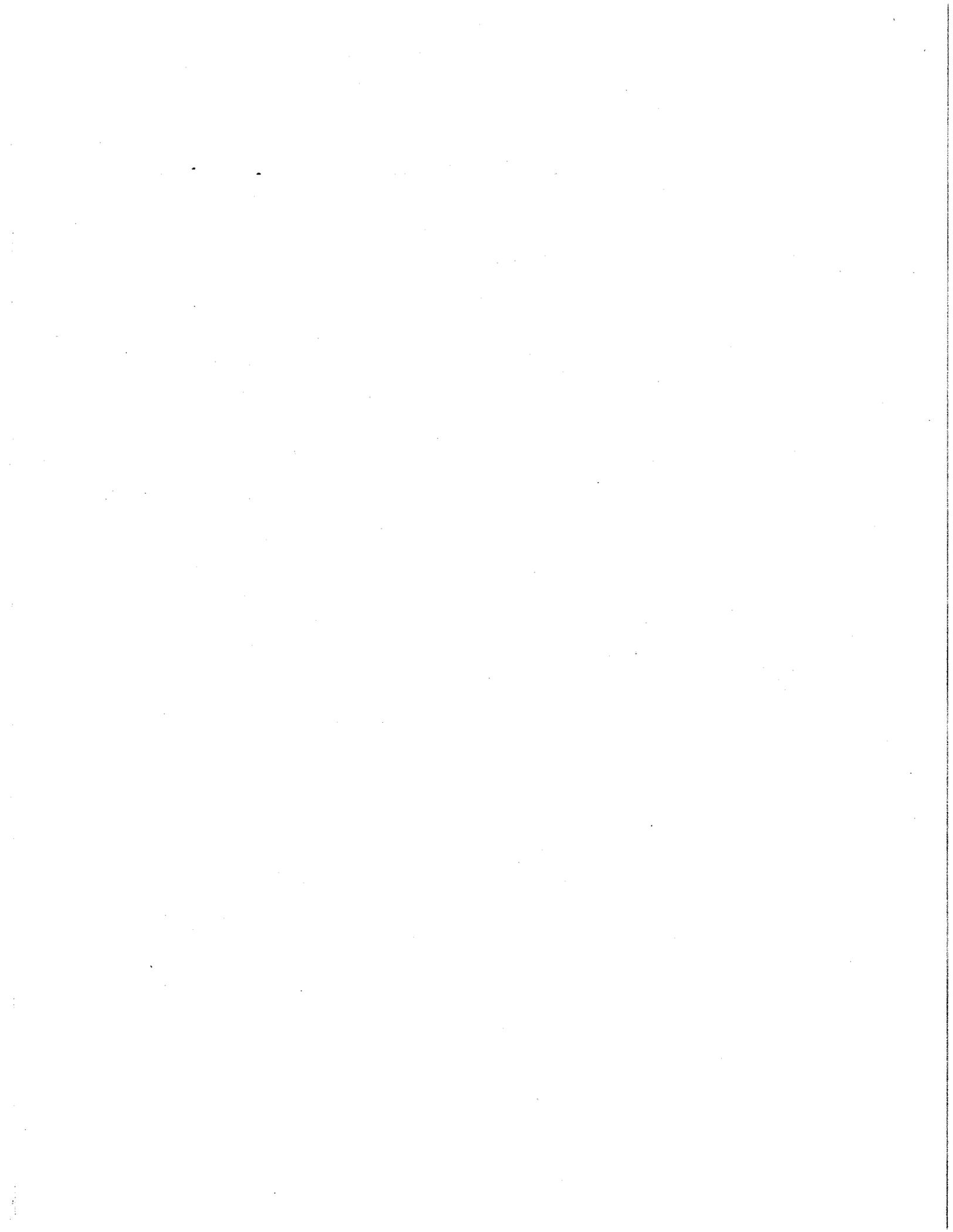
No.

(27) 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.

The users and applicators of affected products would be required to keep operational records sufficient to demonstrate compliance, including identification of materials, VOC content and volumes used. Persons claiming exemptions would be required to keep records demonstrating the validity of the exemption; for example, exemption records might show that volumes are below the regulatory threshold or that products are sold outside this Commonwealth. Manufacturers would be required to label their products so that users have information about the VOC content.

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

There are no special provisions.



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(Pursuant to Commonwealth Documents Law)

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INDEPENDENT REGULATORY
REVIEW COMMISSION

DO NOT WRITE IN THIS SPACE

Copy below is hereby approved as to form and legality.
Attorney General

By: *Angela M. Elliott*
(Deputy Attorney General)

MAR 06 2009

DATE OF APPROVAL

Check if applicable
Copy not approved. Objections attached.

Copy below is hereby certified to be true and
correct copy of a document issued, prescribed or
promulgated by:

DEPARTMENT OF ENVIRONMENTAL
PROTECTION
ENVIRONMENTAL QUALITY BOARD

(AGENCY)

DOCUMENT/FISCAL NOTE NO. 7-428

DATE OF ADOPTION December 16, 2008

BY *John Hanger*

TITLE JOHN HANGER
ACTING CHAIRPERSON

EXECUTIVE OFFICER CHAIRMAN OR SECRETARY

Copy below is hereby approved as to form and legality
Executive of Independent Agencies

BY *Andrew C. Clark*
Andrew C. Clark

DATE OF APPROVAL FEB 3 2009

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

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

NOTICE OF PROPOSED RULEMAKING

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD**

Adhesives, Sealants, Primers and Solvents

25 Pa. Code, Chapters 121, 129 and 130

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 December 16, 2008.

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 (NOx) 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, NOx, 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 ($\$1,060 \times 4,665.2$ tons divided by 12,000,000 residents) or \$0.70 annually per resident ($\$1,060 \times 7,957$ 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) of the Regulatory Review Act (71 P.S. §§ 745.5(a)), on March 20, 2009, the Department submitted a copy of the proposed amendments to the Independent Regulatory Review Commission (IRRC) and the Chairpersons of the House and Senate Environmental Resources and Energy Committees. In addition to submitting the proposed amendments, the Department has provided IRRC and the Committees with a copy of a detailed regulatory analysis form prepared by the Department. A copy of this material is available to the public upon request.

Under Section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations or objections to the proposed rulemaking within 30 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 June 8, 2009. 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 June 8, 2009. 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 June 8, 2009. 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:

May 4, 2009
1:00 p.m.
Department of Environmental Protection
Southwest Regional Office
Waterfront A Conference Room
400 Waterfront Drive
Pittsburgh, PA 15222

May 7, 2009
1:00 p.m.
Department of Environmental Protection
Southeast Regional Office
Delaware River Conference Room
2 East Main Street
Norristown, PA 19401

May 8, 2009
1:00 p.m.
Department of Environmental Protection
Rachel Carson State Office Building
Room 105
400 Market Street
Harrisburg, PA 17105

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

ANNEX A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

SUBPART C. PROTECTION OF NATURAL RESOURCES

ARTICLE III. AIR RESOURCES

CHAPTER 121. GENERAL PROVISIONS

§ 121.1. Definitions.

The definitions in section 3 of the act (35 P. S. § 4003) apply to this article. In addition, the following words and terms, when used in this article, have the following meanings, unless the context clearly indicates otherwise:

* * * * *

ABS welding adhesive or acrylonitrile-butadiene-styrene welding adhesive -An adhesive intended by the manufacturer to weld acrylonitrile-butadiene-styrene (ABS) pipe, which is made by reacting monomers of acrylonitrile, butadiene and styrene.

* * * * *

Adhesive—

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

(ii) The term does not include coatings or finishing materials.

* * * * *

Adhesive primer-[A]

(i) **A product intended by the manufacturer for application to a substrate, prior to the application of an adhesive, to provide a bonding surface.**

(ii) **For purposes of § 129.73 (relating to aerospace manufacturing and rework), a coating applied to an aerospace vehicle or component that does one of the following:**

[(i)] (A) Inhibits corrosion and serves as a primer when applied to bare metal or other surfaces prior to adhesive application.

[(ii)] (B) Is applied to surfaces that can be expected to contain fuel, with the exception of fuel tanks.

Aerosol adhesive-An adhesive packaged as an aerosol product in which the spray mechanism is permanently housed in a non-refillable can designed for handheld application without the need for ancillary hoses or spray equipment.

* * * * *

Aerospace vehicle or component—

[A] **(i) For purposes of § 129.73, a fabricated part, processed part, assembly of parts or completed unit, with the exception of electronic components, of [any] an aircraft including [, but not limited to,] airplanes, helicopters, missiles, rockets and space vehicles.**

(ii) For purposes of § 129.77 (relating to control of emissions from the use or application of adhesives, sealants and primers) and Chapter 130, Subchapter D (relating to adhesives, sealants and primers), the fabricated part, assembly of parts or completed unit of an aircraft, helicopter, missile or space vehicle, including passenger safety equipment.

* * * * *

Architectural sealant or primer-

(i) A sealant or sealant primer intended by the manufacturer to be applied to stationary architectural structures, including mobile homes, and their appurtenances.

(ii) Appurtenances to a stationary architectural structure include hand railings, cabinets, bathroom and kitchen fixtures, fences, rain gutters and downspouts, and windows.

As applied—

(i) The VOC and solids content of a coating, adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent that is actually used to coat the substrate.

(ii) The term includes the contribution of materials used for in-house dilution of the coating.

*As supplied—*The VOC and solids content of a coating, **adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent** as sold and delivered to the end user.

* * * * *

Automotive glass adhesive primer-An adhesive primer labeled by the manufacturer to be applied to automotive glass prior to installation of the glass using an adhesive or sealant. This primer improves the adhesion to pinch weld and blocks ultraviolet light.

* * * * *

CPVC plastic or chlorinated polyvinyl chloride plastic-A polymer of the vinyl chloride monomer that contains 67% chlorine and is normally identified with a CPVC marking.

CPVC welding adhesive or chlorinated polyvinyl chloride welding adhesive-An adhesive labeled for welding of chlorinated polyvinyl chloride plastic.

* * * * *

Ceramic tile installation adhesive-An adhesive intended by the manufacturer for use in the installation of ceramic tiles.

* * * * *

Cleanup solvent-A VOC-containing material used for either of the following:

(i) To remove a loosely held, uncured (that is, not dry to the touch) adhesive or sealant from a substrate.

(ii) To clean equipment used in applying a material.

* * * * *

Computer diskette jacket manufacturing adhesive-An adhesive intended by the manufacturer to glue the fold-over flaps to the body of a vinyl computer diskette jacket.

* * * * *

Contact bond adhesive-

(i) An adhesive that meets all of the following:

(A) Is designed for application to both surfaces to be bonded together.

(B) Is allowed to dry before the two surfaces are placed in contact with each other.

(C) Forms an immediate bond that is impossible, or difficult, to reposition after both adhesive-coated surfaces are placed in contact with each other.

(D) Does not need sustained pressure or clamping of surfaces after the adhesive-coated surfaces have been brought together using sufficient momentary pressure to establish full contact between both surfaces.

(ii) The term does not include the following:

(A) Rubber cements that are primarily intended for use on paper substrates.

(B) Vulcanizing fluids that are designed and labeled for tire repair only.

* * * * *

Cove base-A flooring trim unit, generally made of vinyl or rubber, having a concave radius on one edge and a convex radius on the opposite edge that is used in forming a junction between the bottom wall course and the floor or to form an inside corner.

Cove base installation adhesive-An adhesive intended by the manufacturer to be used for the installation of cove base or wall base on a wall or vertical surface at floor level.

* * * * *

Cyanoacrylate adhesive-

(i) For purposes of § 129.77 and Chapter 130, Subchapter D, an adhesive with a cyanoacrylate content of at least 95% by weight.

(ii) A fast-setting, single component adhesive that cures at room temperature.

(iii) The term is also known as “super glue.”

* * * * *

Diluent-A diluting agent added to decrease the viscosity of a material.

* * * * *

Drywall installation-The installation of gypsum drywall to studs or solid surfaces using an adhesive formulated for that purpose.

* * * * *

Exempt compound or exempt solvent-Specified organic compounds that have been designated by the Administrator of the EPA as having negligible photochemical reactivity and are listed in 40 CFR 51.100 (relating to requirements for preparation, adoption and submittal of implementation plans).

* * * * *

Fiberglass-For purposes of §§ 129.77 (relating to control of emissions from the use or application of adhesives, sealants, primers and solvents) and 130.702 (relating to emission standards), a material consisting of extremely fine glass fibers. (Editor’s note: A definition of this term was published for comment in the Pennsylvania Bulletin on April 19, 2008, in a proposed amendment to Chapter 129 (relating to standards for sources) concerning glass melting furnaces. The later of these two rulemakings to be published as a final rulemaking will include both definitions).

* * * * *

Flexible vinyl-Non-rigid polyvinyl chloride plastic with at least 5% by weight plasticizer content.

* * * * *

Indoor floor covering installation adhesive-

(i) An adhesive intended by the manufacturer for use in the installation of wood flooring, carpet, resilient tile, vinyl tile, vinyl backed carpet, resilient sheet and roll or artificial grass.

(ii) The term does not include adhesives used to install ceramic tile or perimeter bonded sheet flooring with vinyl backing onto a non-porous substrate like flexible vinyl.

* * * * *

Laminate-A product made by bonding together two or more layers of material.

* * * * *

Low-solids adhesive, sealant or primer-An adhesive, sealant, adhesive primer or sealant primer product that contains 120 grams or less of solids per liter of material.

* * * * *

Marine deck sealant or marine deck sealant primer-A sealant or sealant primer labeled for application to wooden marine decks.

* * * * *

Medical equipment manufacturing-The manufacture of medical devices including catheters, heart valves, blood cardioplegia machines, tracheostomy tubes, blood oxygenators and cardiatory reservoirs.

* * * * *

Metal to urethane/rubber molding or casting adhesive-An adhesive intended by the manufacturer to bond metal to high density or elastomeric urethane or molded rubber materials, in heater molding or casting processes, to fabricate products like rollers for computer printers or other paper handling equipment.

* * * * *

Multipurpose construction adhesive-An adhesive intended by the manufacturer for use in the installation or repair of various construction materials, including drywall, subfloor, panel, fiberglass reinforced plastic (FRP), ceiling tile and acoustical tile.

* * * * *

Nonmembrane roof installation/repair adhesive-

(i) An adhesive intended by the manufacturer for use in the installation or repair of nonmembrane roofs and that is not intended for the installation of prefabricated single-ply flexible roofing membrane.

(ii) The term includes:

(A) Plastic or asphalt roof cement.

(B) Asphalt roof coating.

(C) Cold application cement.

* * * * *

Outdoor floor covering installation adhesive-An adhesive intended by the manufacturer for use in the installation of floor covering that is both of the following:

(i) Not in an enclosure.

(ii) Exposed to ambient weather conditions during normal use.

* * * * *

PVC plastic or polyvinyl chloride plastic-A polymer of the chlorinated vinyl monomer that contains 57% chlorine.

PVC welding adhesive or polyvinyl chloride welding adhesive-An adhesive intended by the manufacturer for use in the welding of polyvinyl chloride (PVC) plastic pipe.

* * * * *

Panel installation-The installation of plywood, pre-decorated hardboard or tileboard, fiberglass reinforced plastic and similar pre-decorated or nondecorated panels to studs or solid surfaces using an adhesive formulated for that purpose.

* * * * *

Perimeter bonded sheet flooring installation-The installation of sheet flooring with vinyl backing onto a nonporous substrate using an adhesive designed to be applied only to a strip of up to four inches wide around the perimeter of the sheet flooring.

* * * * *

Plastic cement welding adhesive-

(i) An adhesive intended by the manufacturer for use to dissolve the surface of plastic to form a bond between mating surfaces.

(ii) The term does not include the following welding adhesives:

(A) ABS.

(B) CPVC.

(C) PVC.

Plastic cement welding adhesive primer-A primer intended by the manufacturer for use to prepare plastic substrates prior to bonding or welding.

Plastic foam-Foam constructed of plastics.

Plasticizer-A material, like a high boiling point organic solvent, that is incorporated into a vinyl to increase its flexibility, workability or distensibility, as determined by ASTM Method E-260, including updates and revisions.

Plastics-Synthetic materials chemically formed by the polymerization of organic (carbon-based) substances. Plastics are usually compounded with modifiers, extenders or reinforcers and are capable of being molded, extruded, cast into various shapes and films or drawn into filaments.

* * * * *

Porous material-A substance that has tiny openings, often microscopic, into or from which fluids may be absorbed or discharged, including wood, paper and corrugated paperboard.

* * * * *

Propellant-A fluid under pressure that expels the contents of a container when a valve is opened.

* * * * *

Reactive diluent-A liquid reactive organic compound in an uncured adhesive, sealant or primer that reacts chemically or physically during the curing process to become an integral part of a finished material.

* * * * *

Roadway sealant-A sealant intended by the manufacturer for application to public streets, highways and other surfaces, including curbs, berms, driveways and parking lots.

* * * * *

Rubber-A natural or manmade rubber substrate, including styrene-butadiene rubber, polychloroprene (neoprene) rubber, butyl rubber, nitrile rubber, chlorosulfonated polyethylene rubber and ethylene propylene diene terpolymer rubber.

* * * * *

SCAQMD-South Coast Air Quality Management District-The California regional government agency responsible for air pollution control in Los Angeles and Orange counties and parts of Riverside and San Bernardino counties.

* * * * *

Sealant-

(i) For purposes of § 129.73:

(A) A material used to prevent the intrusion of water, fuel, air or other liquids or solids from certain areas of aerospace vehicles or components.

[(ii)] (B) There are two categories of sealants:

[(A)] (I) Extrudable/rollable/brushable sealants.

[(B)] (II) Sprayable sealants.

(ii) For purposes of § 129.77 and Chapter 130, Subchapter D:

(A) A material with adhesive properties that is formulated primarily to fill, seal, waterproof or weatherproof gaps or joints between two surfaces.

(B) The term includes caulks.

Sealant primer-A product intended by the manufacturer for application to a substrate, prior to the application of a sealant, to enhance the bonding surface.

* * * * *

Sheet rubber installation-

(i) The process of applying sheet rubber liners by hand to metal or plastic substrates to protect the underlying substrate from corrosion or abrasion.

(ii) The term includes laminating sheet rubber to fabric by hand.

* * * * *

Single-ply roof membrane-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.

Single-ply roof membrane adhesive primer-A primer labeled for use to clean and promote adhesion of the single-ply roof membrane seams or splices prior to bonding.

Single-ply roof membrane installation and repair adhesive-An adhesive labeled for use in the installation or repair of single-ply roof membrane. For purposes of this definition:

(i) Installation includes, as a minimum, attaching the edge of the membrane to the edge of the roof and applying flashings to vents, pipes and ducts that protrude through the membrane.

(ii) Repair includes gluing the edges of torn membrane together, attaching a patch over a hole and reapplying flashings to vents, pipes or ducts installed through the membrane.

Single-ply roof membrane sealant-A sealant labeled for application to single-ply roof membrane.

* * * * *

Solvent- Organic compounds which are liquid at standard conditions and which are used as **diluents, thinners, solvents, viscosity reducers, [or] cleaning agents or other related uses.**

* * * * *

Structural glazing adhesive-An adhesive intended by the manufacturer to apply glass, ceramic, metal, stone or composite panels to exterior building frames.

* * * * *

Subfloor installation-The installation of subflooring material over floor joists, including the construction of load bearing joists. Subflooring material is covered by a finish surface material.

* * * * *

Surface preparation solvent-A solvent used to remove dirt, oil and other contaminants from a substrate prior to the application of an adhesive, sealant, adhesive primer or sealant primer.

* * * * *

Thin metal laminating adhesive-An adhesive intended by the manufacturer for use in bonding multiple layers of metal to metal or metal to plastic in the production of electronic or magnetic components in which the thickness of the bond line is less than 0.25 mils.

* * * * *

Tire repair-A process that includes both of the following steps:

(i) Expanding a hole, tear, fissure or blemish in a tire casing by grinding or gouging.

(ii) Applying adhesive and filling the expanded hole, tear, fissure or blemish with rubber.

Tire tread adhesive-An adhesive intended by the manufacturer for one or both of the following applications:

(i) To the back of precure tread rubber and to the casing and cushion rubber.

(ii) To seal buffed tire casings to prevent oxidation while the tire is being prepared for a new tread.

* * * * *

Traffic marking tape-Preformed reflective film intended by the manufacturer for application to public streets, highways and other surfaces, including curbs, berms, driveways and parking lots.

Traffic marking tape adhesive primer-A primer intended by the manufacturer for application to surfaces prior to installation of traffic marking tape.

* * * * *

Undersea-based weapons systems components-The fabrication of parts, parts assembly or completed units of a portion of a missile launching system used on undersea ships.

* * * * *

Waterproof resorcinol glue-A two-part resorcinol-resin-based adhesive designed for applications where the bond line must be resistant to conditions of continuous immersion in fresh or salt water.

* * * * *

CHAPTER 129. STANDARDS FOR SOURCES

SOURCES OF VOCs

[Editor's note: Section 129.77 is new and printed in regular type to enhance readability.]

§ 129.77. Control of emissions from the use or application of adhesives, sealants, primers and solvents.

(a) This section applies to the owner or operator of a facility that uses or applies one or more of the following on or after April 15, 2010:

(1) An adhesive, sealant, adhesive primer or sealant primer subject to the emission standards in Table V.

(2) An adhesive or sealant product applied to the listed substrate subject to the emission standards in Table VI.

(3) A surface preparation solvent or cleanup solvent.

(b) On or after April 15, 2010, an owner or operator of a facility may not use or apply at the facility 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 this section.

(c) On or after April 15, 2010, an owner or operator of a facility may not use or apply at the facility 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.

(d) The VOC content limits in Table VI for adhesives or sealants applied to particular substrates applies as follows:

(1) If an owner or operator uses an adhesive or sealant subject to a specific VOC content limit in Table V, the specific limit is applicable rather than the adhesive-to-substrate limit in Table VI.

(2) 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.

(e) An owner or operator subject to this section using a surface preparation solvent or cleanup solvent may not:

(1) Except as provided in paragraph (2) for single-ply roof membrane, use materials containing VOCs for surface preparation, unless the VOC content of the surface preparation solvent is less than 70 grams per liter of material or 0.6 pounds of VOC per gallon of material.

(2) Use materials containing VOCs for surface preparation or cleanup when applying single-ply roof membrane, unless the composite vapor pressure, excluding water and exempt compounds, of the surface preparation solvent or cleanup solvent is less than or equal to 45 mm mercury at 20°C.

(3) Except as provided in subsection (f), use cleanup solvent materials containing VOCs for the removal of adhesives, sealants, adhesive primers or sealant primers from surfaces, other than from the parts of spray application equipment, unless the composite vapor pressure of the solvent is less than or equal to 45 mm mercury at 20°C.

(f) Removal of an adhesive, sealant, adhesive primer or sealant primer from the parts of spray application equipment shall be performed by one or more of the following methods:

(1) Using an enclosed cleaning system, or an equivalent cleaning system as determined by the test method identified in subsection (z).

(2) Using a solvent with a VOC content less than or equal to 70 grams of VOC per liter of material or 0.6 pounds of VOC per gallon of material.

(3) Soaking parts containing dried adhesive in a solvent if the composite vapor pressure of the solvent, excluding water and exempt compounds, is less than or equal to 9.5 mm mercury at 20°C and the parts and solvent are in a closed container that remains closed except when adding parts to or removing parts from the container.

(g) 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 may comply with the requirements of this section through the use of add-on air pollution control equipment if all of the following requirements are met:

(1) The VOC emissions from the use of all noncomplying as applied adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents and cleanup solvents subject to the emission standard requirements of this section are reduced by an overall efficiency of at least 85%, by weight.

(i) The capture efficiency of the system must be determined in accordance with the requirements of subsection (y)(1).

(ii) The control efficiency of the system must be determined in accordance with the requirements of subsection (y)(2).

(2) The combustion temperature is continuously monitored and recorded if a thermal incinerator is operated.

(3) Inlet and exhaust gas temperatures are continuously monitored and recorded if a catalytic incinerator is operated.

(4) Control device efficiency is monitored continuously if a carbon absorber or control device other than a thermal or catalytic incinerator is operated.

(5) Operation records sufficient to demonstrate compliance with the requirements of this section are maintained in accordance with subsections (p), (q) and (r).

(6) The control equipment is approved, in writing, by the Department in an operating permit.

(h) 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 adhesives, sealants, primers, surface preparation solvents or cleanup solvents subject to this section, in non-absorbent containers that are kept closed except when placing materials in or removing materials from the container.

(i) A person may not solicit, require the use of or specify the application of an adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent if the use or application would result in a violation of this section. The prohibition of this subsection applies to all written or oral contracts under which an adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent subject to this section is to be used at a location in this Commonwealth.

(j) A person who applies or solicits the application of an adhesive, sealant, adhesive primer or sealant primer 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 addition causes the adhesive, sealant, adhesive primer or sealant primer 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).

(k) The requirements of this section do not apply to the use or application of the following compounds or products:

(1) Adhesives, sealants, adhesive primers or sealant primers 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).

(2) Adhesives, sealants, adhesive primers or sealant primers that are subject to §§ 129.51, 129.52, 129.67, 129.73, 129.75, 129.101-129.107 or Chapter 130, Subchapter B (relating to consumer products) or Subchapter C (relating to architectural and industrial maintenance coatings).

(3) 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.

(4) Cyanoacrylate adhesives.

(5) 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.

(6) Contact adhesives that are sold or supplied by the manufacturer or supplier in containers with a net volume of one gallon or less.

(l) The requirements of this section do not apply to the use of adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents or cleanup solvents in the following operations:

(1) Tire repair operations, if the label of the adhesive states, "For tire repair only."

(2) The assembly, repair and manufacture of aerospace components or undersea-based weapon systems.

(3) The manufacture of medical equipment.

(4) Plaque laminating operations in which adhesives are used to bond clear, polyester acetate laminate to wood with lamination equipment installed prior to July 1, 1992. An owner or operator claiming an exemption under this paragraph shall record and maintain operational records sufficient to demonstrate compliance with this exemption, in accordance with subsections (p), (q) and (r).

(m) The requirements of this section apply to the use or application of single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant and single-ply roof membrane adhesive primer on the following schedule:

(1) For the years 2010 and 2011, from April 15 through October 15.

(2) On and after January 1, 2012.

(n) The provisions of this section do not apply 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, in accordance with subsections (p), (q) and (r).

(o) The provisions of this section do not apply to the use of a noncomplying adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent if the total volume of noncomplying adhesives, sealants, primers, cleanup and surface preparation solvents applied facility-wide does not exceed 55 gallons per calendar year. An owner or operator claiming exemption under this paragraph shall record and maintain operational records sufficient to demonstrate compliance with this exemption, in accordance with subsections (p), (q) and (r).

(p) Except as provided in subsection (q), each owner or operator subject to this section shall maintain records demonstrating compliance with this section, including the following information:

(1) A list of each adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent and cleanup solvent product in use and in storage.

(2) 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 required by paragraph (1).

(3) The VOC content of each product on the list required by paragraph (1), as supplied.

(4) Catalysts, reducers or other components used and the mix ratio.

(5) The VOC content or vapor pressure of each product on the list required by paragraph (1), as applied, if solvent or other VOC is added to the product before application.

(6) The volume used of each product on the list required by paragraph (1).

(q) For an adhesive, sealant, adhesive primer and sealant primer product subject to the laboratory testing exemption of subsection (k)(1), the person conducting the testing shall make and maintain records of all products used, including the following information:

(1) The product name.

(2) The product category of the material or type of application.

(3) The VOC content of the material.

(r) All records made to determine compliance with this section shall be:

(1) Maintained on site for at least 5 years from the date the record is created.

(2) Made available to the Department upon request.

(s) Except as provided in subsections (u), (v) and (w), the VOC and solids content of all nonaerosol adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents and cleanup solvents shall be determined using one of the following:

(1) EPA Reference Method 24, *Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings*, found at 40 CFR 60, Subpart D, Appendix A, including updates and revisions.

(2) SCAQMD Method 304, *Determination of Volatile Organic Compounds (VOC) in Various Materials*, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA, including updates and revisions.

(t) The identity and concentration of exempt organic compounds shall be determined using one of the following:

(1) ASTM D4457, *Standard Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph*, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA, including updates and revisions.

(2) SCAQMD Method 303, *Determination of Exempt Compounds*, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA, including updates and revisions.

(u) The VOC content of a plastic cement welding adhesive or primer shall be determined using SCAQMD Method 316A, *Determination of Volatile Organic Compounds (VOC) in Materials Used for Pipes and Fittings*, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA, including updates and revisions.

(v) To determine if a diluent is a reactive diluent, the percentage of the reactive organic compound that becomes an integral part of the finished materials shall be determined using SCAQMD Method 316A, *Determination of Volatile Organic Compounds (VOC) in Materials Used for Pipes and Fittings*, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA, including updates and revisions.

(w) The composite vapor pressure of organic compounds in cleaning materials shall be determined by the following procedure:

(1) Quantifying the amount of each compound in the blend using gas chromatographic analysis, using the following methods:

(i) ASTM E260, *Standard Practice for Packed Column Gas Chromatography*, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA, for organic content, including updates and revisions.

(ii) ASTM D3792, *Standard Test Method for Water Content of Coatings by Direct Injection Into a Gas Chromatograph*, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA, for water content, including updates and revisions.

(2) Calculating the composite vapor pressure using the following equation:

$$Pp_c = \frac{\sum_{i=1}^n (W_i)(VP_i)/Mw_i}{W_w/Mw_w + \sum_{i=1}^n W_e/Mw_e + \sum_{i=1}^n W_i/Mw_i}$$

Where:

Pp_c = VOC composite partial pressure at 20°C, in mm mercury.

W_i = Weight of the "i"th VOC compound, in grams, as determined by ASTM E260.

W_w = Weight of water, in grams as determined by ASTM D3792.

W_e = Weight of the "i"th exempt compound, in grams, as determined by ASTM E260.

Mw_i = Molecular weight of the "i"th VOC compound, in grams per g-mole, as given in chemical reference literature.

Mw_w = Molecular weight of water, 18 grams per g-mole.

Mw_e = Molecular weight of the "i"th exempt compound, in grams per g-mole, as given in chemical reference literature.

VP_i = Vapor pressure of the "i"th VOC compound at 20°C, in mm mercury, as determined by subsection (x).

(x) The vapor pressure of each single component compound may be determined from one or more of the following:

(1) ASTM D2879, *Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope*, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA, including updates and revisions.

(2) The most recent edition of one or more of the following sources:

(i) *Vapour Pressures of Pure Substances*, Boublik, Elsevier Scientific Publishing Company, New York.

(ii) *Perry's Chemical Engineers' Handbook*, Green and Perry, McGraw-Hill Book Company.

(iii) *CRC Handbook of Chemistry and Physics*, CRC Press.

(iv) *Lange's Handbook of Chemistry*, McGraw-Hill Book Company.

(v) Additional sources approved by the SCAQMD or other California air districts.

(y) If air pollution control equipment is used to meet the requirements of this section, the owner or operator shall make both of the following determinations:

(1) The measurement of capture efficiency shall be conducted and reported in accordance with the EPA Technical Document "*Guidelines for Determining Capture Efficiency*," issued January 9, 1995.

(2) The control efficiency shall be determined in accordance with one of the following:

(i) EPA Reference Method 25, *Determination of Total Gaseous Nonmethane Organic Emissions as Carbon*, found at 40 CFR 60, Subpart D, Appendix A, including updates and revisions.

(ii) EPA Reference Method 25A, *Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer*, found at 40 CFR 60, Subpart D, Appendix A, including updates and revisions.

(iii) EPA Reference Method 25B, *Determination of Total Gaseous Organic Concentration Using a Nondispersive Infrared Analyzer*, found at 40 CFR 60, Subpart D, Appendix A, including updates and revisions.

(iv) CARB Method 100, *Procedures for Continuous Gaseous Emission Stack Sampling*, California Air Resources Board, 1001 "I" Street, P.O. Box 2815, Sacramento, CA, 95812 USA, including updates and revisions.

(z) The active and passive solvent losses from the use of an enclosed spray gun cleaning system or equivalent cleaning system, as listed in subsection (f)(1), shall be determined using the SCAQMD method, *General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems*, dated October 3, 1989, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA, including updates and revisions.

(1) The test solvent for this determination shall be a lacquer thinner with a minimum vapor pressure of 105 mm of mercury at 20°C.

(2) The minimum test temperature shall be 15°C.

(aa) For adhesive, sealant, adhesive primer or sealant primer products that do not contain reactive diluents, grams of VOC per liter of product thinned to the manufacturer's recommendation, less water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product, as applied} = \frac{W_s - W_w - W_e}{V_m - V_w - V_e}$$

Where:

W_s = weight of volatile compounds, in grams.

W_w = weight of water, in grams.

W_e = weight of exempt compounds, in grams.

V_m = volume of material, in liters.

V_w = volume of water, in liters.

V_e = volume of exempt compounds, in liters.

(bb) For adhesive, sealant, adhesive primer or sealant primer products that contain reactive diluents, the VOC content of the product is determined after curing. The grams of VOC per liter of product thinned to the manufacturer's recommendation, less water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product, as applied} = \frac{Wrs - Wrw - Wre}{Vrm - Vrw - Vre}$$

Where:

Wrs = weight of volatile compounds not consumed during curing, in grams.

Wrw = weight of water not consumed during curing, in grams.

Wre = weight of exempt compounds not consumed during curing, in grams.

Vrm = volume of material not consumed during curing, in liters.

Vrw = volume of water not consumed during curing, in liters.

Vre = volume of exempt compounds not consumed during curing, in liters.

(cc) For low-solids adhesive, sealant, adhesive primer or sealant primer products, grams of VOC per liter of product thinned to the manufacturer's recommendation, including the volume of water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product, as applied} = \frac{Ws - Ww - We}{Vm}$$

Where:

Ws = weight of volatile compounds, in grams.

Ww = weight of water, in grams.

We = weight of exempt compounds, in grams.

Vm = volume of material, in liters.

(dd) Percent VOC by weight shall be calculated according to the following equation:

$$\% \text{ VOC by weight} = [(Wv / W)] \times 100$$

Where:

Wv = weight of VOCs in grams.

W = weight of material in grams.

(ee) To convert from grams per liter (g/l) to pounds per gallon (lb/gal), multiply the result (VOC content) by 8.345×10^{-3} (lb/gal/g/l).

Table V. VOC Content Limits for Adhesives, Sealants, Adhesive Primers and Sealant Primers, As Applied

Adhesive, sealant, adhesive primer or sealant primer category	VOC content limit (pounds VOC per gallon, less water and exempt compounds)*	VOC content limit (grams VOC per liter, less water and exempt compounds)*
<i>Adhesives</i>		
ABS welding	3.3	400
Ceramic tile installation	1.1	130
Computer diskette jacket manufacturing	7.1	850
Contact bond	2.1	250
Cove base installation	1.3	150
CPVC welding	4.1	490
Indoor floor covering installation	1.3	150
Metal to urethane/rubber molding or casting	7.1	850
Multipurpose construction	1.7	200
Nonmembrane roof installation/repair	2.5	300
Outdoor floor covering installation	2.1	250
Perimeter bonded sheet vinyl flooring installation	5.5	660
Plastic cement welding, other than ABS, CPVC or PVC welding	4.3	510
PVC welding	4.3	510
Sheet rubber installation	7.1	850
Single-ply roof membrane installation/repair	2.1	250
Structural glazing	0.8	100
Thin metal laminating	6.5	780
Tire retread	0.8	100
Waterproof resorcinol glue	1.4	170
<i>Sealants</i>		
Architectural	2.1	250
Marine deck	6.3	760
Nonmembrane roof installation/repair	2.5	300
Roadway	2.1	250
Single-ply roof membrane	3.8	450
Other	3.5	420
<i>Adhesive Primers</i>		
Automotive glass	5.8	700
Plastic cement welding	5.4	650
Single-ply roof membrane	2.1	250
Traffic marking tape	1.3	150
Other	2.1	250
<i>Sealant Primers</i>		
Marine deck	6.3	760
Non-porous architectural	2.1	250
Porous architectural	6.5	775
Other	6.3	750

* The VOC content is determined as the weight of VOC per volume of product, less water and exempt compounds, as specified in subsections (aa) and (bb) or as the weight of VOC per volume of product, as specified in subsection (cc).

Table VI. VOC Content Limits for Adhesive or Sealant Products Applied to Particular Substrates, As Applied

Adhesive or Sealant Products Applied to the Listed Substrate	VOC content limit (pounds VOC per gallon, less water and exempt compounds)*	VOC content limit (grams VOC per liter, less water and exempt compounds)*
Fiberglass	1.7	200
Flexible vinyl	2.1	250
Metal	0.3	30
Porous material	1.0	120
Rubber	2.1	250
Other substrates	2.1	250

* The VOC content is determined as the weight of VOC per volume of product, less water and exempt compounds, as specified in subsections (aa) and (bb) or as the weight of VOC per volume of product, as specified in subsection (cc)..

CHAPTER 130. STANDARDS FOR PRODUCTS

[Editor's note: Subchapter D is new and printed in regular type to enhance readability.]

Subchapter D. Adhesives, Sealants, Primers and Solvents

GENERAL PROVISIONS

§ 130.701. Applicability.

(a) Except as provided in § 130.703 (relating to exemptions and exceptions), this subchapter applies to a person who, on or after April 15, 2010, sells, supplies, offers for sale or manufactures for sale for use in this Commonwealth one or more of the following products subject to the requirements of this subchapter:

- (1) An adhesive, sealant, adhesive primer or sealant primer product.
- (2) An adhesive or sealant product applied to particular substrates.
- (3) A surface preparation solvent or cleanup solvent product.

(b) Except as provided in § 130.703, this subchapter applies to a person who, on or after April 15, 2010, uses or applies for compensation within this Commonwealth one or more of the following products subject to the requirements of this subchapter:

- (1) An adhesive, sealant, adhesive primer or sealant primer product.
- (2) An adhesive or sealant product applied to particular substrates.
- (3) A surface preparation solvent or cleanup solvent product.

§ 130.702. Emission standards.

(a) Except as provided in § 130.703 (relating to exemptions and exceptions), on and after April 15, 2010, a person may not sell, supply, offer for sale or manufacture for sale for use in this Commonwealth one or more of the following products subject to the requirements of this subchapter:

(1) An adhesive, sealant, adhesive primer, or sealant primer product manufactured on or after April 15, 2010, which contains VOCs in excess of the applicable VOC content limits specified in Table I.

(2) 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 specified in Table II.

(b) Except as provided in § 130.703, on and after April 15, 2010, a person may not use or apply for compensation within this Commonwealth one or more of the following products subject to the requirements of this subchapter:

(1) An adhesive, sealant, adhesive primer or sealant primer product which contains VOCs in excess of the applicable VOC content limits specified in Table I.

(2) An adhesive or sealant product applied to particular substrates which contains VOCs in excess of the applicable VOC content limits specified in Table II.

(c) On and after April 15, 2010, the VOC content limits in Table II for adhesives or sealants applied to particular substrates apply as follows:

(1) If a person uses an adhesive or sealant subject to a specific VOC content limit in Table I, the specific limit is applicable rather than the adhesive-to-substrate limit in Table II.

(2) 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.

(d) On and after April 15, 2010, a person subject to this subchapter using a surface preparation solvent or cleanup solvent may not:

(1) Except as provided in paragraph (2) for single-ply roof membrane, use materials containing VOCs for surface preparation, unless the VOC content of the surface preparation solvent is less than 70 grams per liter of material or 0.6 pounds of VOC per gallon of material.

(2) If a surface preparation solvent is used in applying single-ply roof membrane, use materials containing VOCs for surface preparation, unless the composite vapor pressure, excluding water and exempt compounds, of the surface preparation solvent is less than or equal to 45 mm mercury at 20°C.

(3) Except as provided in subsection (e), use materials containing VOCs for the removal of adhesives, sealants or adhesive or sealant primers from surfaces, other than from the parts of spray application equipment, unless the composite vapor pressure of the solvent used is less than or equal to 45 mm mercury at 20°C.

(e) On and after April 15, 2010, the removal of an adhesive, sealant, adhesive primer or sealant primer from the parts of spray application equipment shall be performed by one or more of the following methods:

(1) Using an enclosed cleaning system or equivalent cleaning system, as determined by the test method identified in § 130.705(g) (relating to compliance procedures and test methods).

(2) Using a solvent with a VOC content less than or equal to 70 grams of VOC per liter of material or 0.6 pounds of VOC per gallon of material.

(3) Soaking parts containing dried adhesive in a solvent if the composite vapor pressure of the solvent, excluding water and exempt compounds, is less than or equal to 9.5 mm mercury at 20°C and the parts and solvent are in a closed container that remains closed except when adding parts to or removing parts from the container.

(f) On and after April 15, 2010, a person using adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents or cleanup solvents 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 is kept closed except when placing materials in or removing materials from the container.

(g) On and after April 15, 2010, a person may not solicit, require the use of or specify the application of an adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent if the use or application would result in a violation of this subchapter. The prohibition of this subsection apply to all written or oral contracts under which an adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent subject to this subchapter is to be used at a location in this Commonwealth.

(h) On and after April 15, 2010, a person who applies or solicits the application of an adhesive, sealant, adhesive primer or sealant primer subject to the requirements of 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 addition causes the adhesive, sealant, adhesive primer or sealant primer to exceed the applicable VOC content limit listed in Table I or II.

Table I. VOC Content Limits for Adhesives, Sealants, Adhesive Primers and Sealant Primers, As Applied

Adhesive, sealant, adhesive primer or sealant primer category	VOC content limit (pounds VOC per gallon, less water and exempt compounds)*	VOC content limit (grams VOC per liter, less water and exempt compounds)*
<i>Adhesives</i>		
ABS welding	3.3	400
Ceramic tile installation	1.1	130
Computer diskette jacket manufacturing	7.1	850
Contact bond	2.1	250
Cove base installation	1.3	150
CPVC welding	4.1	490
Indoor floor covering installation	1.3	150
Metal to urethane/rubber molding or casting	7.1	850
Multipurpose construction	1.7	200
Nonmembrane roof installation/repair	2.5	300
Outdoor floor covering installation	2.1	250
Perimeter bonded sheet vinyl flooring installation	5.5	660
Plastic cement welding, other than ABS, CPVC or PVC welding	4.3	510
PVC welding	4.3	510
Sheet rubber installation	7.1	850
Single-ply roof membrane installation/repair	2.1	250
Structural glazing	0.8	100
Thin metal laminating	6.5	780
Tire retread	0.8	100
Waterproof resorcinol glue	1.4	170
<i>Sealants</i>		
Architectural	2.1	250
Marine deck	6.3	760
Nonmembrane roof installation/repair	2.5	300
Roadway	2.1	250
Single-ply roof membrane	3.7	450
Other	3.5	420
<i>Adhesive Primers</i>		
Automotive glass	5.8	700
Plastic cement welding	5.4	650
Single-ply roof membrane	2.1	250
Traffic marking tape	1.3	150
Other	2.1	250
<i>Sealant Primers</i>		
Marine deck	6.3	760
Non-porous architectural	2.1	250
Porous architectural	6.5	775
Other	6.3	760

* The VOC content is determined as the weight of VOC per volume of product, less water and exempt compounds, as specified in § 130.705(h) and (i) or as the weight of VOC per volume of product, as specified in § 130.705(j).

Table II. VOC Content Limits for Adhesive or Sealant Products Applied to Particular Substrates, As Applied

Adhesive or Sealant Products Applied to the Listed Substrate	VOC content limit (pounds VOC per gallon, less water and exempt compounds)*	VOC content limit (grams VOC per liter, less water and exempt compounds)*
Fiberglass	1.7	200
Flexible vinyl	2.1	250
Metal	0.3	30
Porous material	1.0	120
Rubber	2.1	250
Other substrates	2.1	250

* The VOC content is determined as the weight of VOC per volume of product, less water and exempt compounds, as specified in § 130.705(h) and (i) or as the weight of VOC per volume of product, as specified in § 130.705(j).

§ 130.703. Exemptions and exceptions.

(a) The requirements of this subchapter do not apply to the use or sale of the following compounds or products:

(1) Adhesives, sealants, adhesive primers or sealant primers 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).

(2) Adhesives, sealants, adhesive primers or sealant primers that are subject to §§ 129.51, 129.52, 129.67, 129.73, 129.75, 129.101-129.107 or Chapter 130, Subchapter B (relating to consumer products) or Subchapter C (relating to architectural and industrial maintenance coatings).

(3) 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.

(4) Cyanoacrylate adhesives.

(5) 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.

(6) Contact adhesives that are sold or supplied by the manufacturer or supplier in containers with a net volume of one gallon or less.

(b) The requirements of this subchapter do not apply to the use of adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents or cleanup solvents in the following operations:

(1) Tire repair operations, if the label of the adhesive states, "For tire repair only."

(2) The assembly, repair and manufacture of aerospace components or undersea-based weapons systems.

(3) The manufacture of medical equipment.

(4) Plaque laminating operations in which adhesives are used to bond clear, polyester acetate laminate to wood with lamination equipment installed prior to July 1, 1992. A person claiming an exemption under this paragraph shall record and maintain operational records sufficient to demonstrate compliance with this exemption, in accordance with § 130.704.

(c) The requirements of this subchapter do not apply to the use or application of single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant and single-ply roof membrane adhesive primer prior to April 15, 2010. The requirements of this subchapter apply to the use and application of these products on the following schedule:

(1) For the years 2010 and 2011, from April 15 through October 15.

(2) On and after January 1, 2012.

(d) The requirements of this subchapter do not apply to the sale, supply, offer for sale or manufacture for sale of a single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant or single-ply roof membrane adhesive primer prior to January 1, 2012.

(e) The provisions of § 130.702(a)-(e) (relating to emission standards) do not apply 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. A person claiming exemption under this paragraph shall record and maintain operational records sufficient to demonstrate compliance with this exemption, in accordance with § 130.704.

(f) The provisions of § 130.702(a)-(e) do not apply to the use of a noncomplying adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent if the total volume of noncomplying adhesives, sealants, primers, surface preparation solvents and cleanup solvents applied facility-wide does not exceed 55 gallons per calendar year. A person claiming exemption under this paragraph shall record and maintain operational records sufficient to demonstrate compliance with this exemption, in accordance with § 130.704.

(g) The requirements of this subchapter do not apply to an adhesive, sealant, adhesive primer or sealant primer product that does not comply with § 130.702 if the manufacturer or distributor of the noncomplying product makes and keeps records demonstrating both of the following:

(1) The noncomplying adhesive, sealant, adhesive primer or sealant primer product is intended for shipment and use outside of this Commonwealth.

(2) The manufacturer or distributor has taken reasonably prudent precautions to assure that the noncomplying adhesive, sealant, adhesive primer or sealant primer product is not distributed to or within this Commonwealth.

(h) The exemption in subsection (g) does not apply to an adhesive, sealant, adhesive primer or sealant primer product that is sold, supplied or offered for sale by a person to a retail outlet in this Commonwealth.

(i) The requirements of this subchapter 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 (relating to control of emissions from the use or application of adhesives, sealants and primers).

(j) 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.

§ 130.704. Recordkeeping requirements.

(a) On and after April 15, 2010, 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 shall maintain records demonstrating compliance with this subchapter, including the following information:

- (1) A data sheet or material list which provides the material name, manufacturer identification and material application for each product.
- (2) The VOC content of each product, as supplied.
- (3) The number of gallons of product sold in this Commonwealth.

(b) On and after April 15, 2010, a person who uses or applies 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 the following information:

- (1) A list of each adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent and cleanup solvent product in use and in storage.
- (2) 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 required by paragraph (1).
- (3) The VOC content of each product on the list required by paragraph (1), as supplied.
- (4) Catalysts, reducers or other components used and the mix ratio.
- (5) The VOC content or vapor pressure of each product on the list required by paragraph (1), as applied, if solvent or other VOC is added to the product before application.
- (6) The volume used of each product on the list required by paragraph (1).

(c) For an adhesive, sealant, adhesive primer and sealant primer product subject to the laboratory testing exemption of § 130.703(a)(1) (relating to exemptions and exceptions), on and after April 15,

2010, the person conducting the testing shall make and maintain records of all materials used, including the following information:

- (1) The product name.
 - (2) The product category of the material or type of application.
 - (3) The VOC content of the material.
- (d) All records made to determine compliance with this subchapter shall be:
- (1) Maintained for at least 5 years from the date the record is created.
 - (2) Made available to the Department upon request.

§ 130.705. Compliance procedures and test methods.

(a) Except as provided in subsections (c), (d) and (e), the VOC and solids content of all nonaerosol adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents and cleanup solvents shall be determined using one of the following:

(1) EPA Reference Method 24, *Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings*, found at 40 CFR 60, Subpart D, Appendix A, including updates and revisions.

(2) SCAQMD Method 304, *Determination of Volatile Organic Compounds (VOC) in Various Materials*, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA, including updates and revisions.

(b) The identity and concentration of exempt organic compounds shall be determined using one of the following:

(1) ASTM D4457, *Standard Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph*, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA, including updates and revisions.

(2) SCAQMD Method 303, *Determination of Exempt Compounds*, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA, including updates and revisions.

(c) The VOC content of a plastic cement welding adhesive or primer shall be determined using SCAQMD Method 316A, *Determination of Volatile Organic Compounds (VOC) in Materials Used for Pipes and Fittings*, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA, including updates and revisions.

(d) To determine if a diluent is a reactive diluent, the percentage of the reactive organic compound that becomes an integral part of the finished materials shall be determined using SCAQMD Method

316A, *Determination of Volatile Organic Compounds (VOC) in Materials Used for Pipes and Fittings*, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA, including updates and revisions.

(e) The composite vapor pressure of organic compounds in cleaning materials shall be determined by the following procedure:

(1) Quantifying the amount of each compound in the blend using gas chromatographic analysis, using the following methods:

(i) ASTM E260, *Standard Practice for Packed Column Gas Chromatography*, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA, for organic content, including updates and revisions.

(ii) ASTM D3792, *Standard Test Method for Water Content of Coatings by Direct Injection Into a Gas Chromatograph*, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA, for water content, including updates and revisions.

(2) Calculating the composite vapor pressure using the following equation:

$$Pp_c = \frac{\sum_{i=1}^n (W_i)(VP_i)/Mw_i}{W_w/Mw_w + \sum_{i=1}^n W_e/Mw_e + \sum_{i=1}^n W_i/Mw_i}$$

Where:

Pp_c = VOC composite partial pressure at 20 C, in mm Hg.

W_i = Weight of the "i"th VOC compound, in grams, as determined by ASTM E260.

W_w = Weight of water, in grams as determined by ASTM D3792.

W_e = Weight of the "i"th exempt compound, in grams, as determined by ASTM E260.

Mw_i = Molecular weight of the "i"th VOC compound, in grams per g-mole, as given in chemical reference literature.

Mw_w = Molecular weight of water, 18 grams per g-mole.

Mw_e = Molecular weight of the "i"th exempt compound, in grams per g-mole, as given in chemical reference literature.

VP_i = Vapor pressure of the "i"th VOC compound at 20°C, in mm mercury, as determined by subsection (f).

(f) The vapor pressure of each single component compound may be determined from one or more of the following:

(1) ASTM D2879, *Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isotenoscope*, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA, including updates and revisions.

(2) The most recent edition of one or more of the following sources:

(i) *Vapour Pressures of Pure Substances*, Boublik, Elsevier Scientific Publishing Company, New York.

(ii) *Perry's Chemical Engineers' Handbook*, Green and Perry, McGraw-Hill Book Company.

(iii) *CRC Handbook of Chemistry and Physics*, CRC Press.

(iv) *Lange's Handbook of Chemistry*, McGraw-Hill Book Company.

(v) Additional sources approved by the SCAQMD or other California air districts.

(g) The active and passive solvent losses from the use of an enclosed spray gun cleaning system or equivalent cleaning system, as listed in § 130.702(e)(1) (relating to emission standards), shall be determined using the SCAQMD method, *General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems*, dated October 3, 1989, SCAQMD, 21865 Copley Drive, Diamond Bar, CA, 91765 USA, including updates and revisions.

(1) The test solvent for this determination shall be a lacquer thinner with a minimum vapor pressure of 105 mm of mercury at 20°C.

(2) The minimum test temperature shall be 15°C.

(h) For adhesive, sealant or primer products that do not contain reactive diluents, grams of VOC per liter of product thinned to the manufacturer's recommendation, less water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product, as applied} = \frac{W_s - W_w - W_e}{V_m - V_w - V_e}$$

Where:

W_s = weight of volatile compounds, in grams.

W_w = weight of water, in grams.

W_e = weight of exempt compounds, in grams.

V_m = volume of material, in liters.

V_w = volume of water, in liters.

V_e = volume of exempt compounds, in liters.

(i) For adhesive, sealant or primer products that contain reactive diluents, the VOC content of the product is determined after curing. The grams of VOC per liter of product thinned to the manufacturer's recommendation, less water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product, as applied} = \frac{W_{rs} - W_{rw} - W_{re}}{V_{rm} - V_{rw} - V_{re}}$$

Where:

W_{rs} = weight of volatile compounds not consumed during curing, in grams.

W_{rw} = weight of water not consumed during curing, in grams.
 W_{re} = weight of exempt compounds not consumed during curing, in grams.
 V_{rm} = volume of material not consumed during curing, in liters.
 V_{rw} = volume of water not consumed during curing, in liters.
 V_{re} = volume of exempt compounds not consumed during curing, in liters.

(j) For low-solids adhesive, sealant or primer products, grams of VOC per liter of product thinned to the manufacturer's recommendation, including water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product, as applied} = \frac{W_s - W_w - W_e}{V_m}$$

Where:

W_s = weight of volatile compounds, in grams.
 W_w = weight of water, in grams.
 W_e = weight of exempt compounds, in grams.
 V_m = volume of material, in liters.

(k) Percent VOC by weight shall be calculated according to the following equation:

$$\% \text{ VOC by weight} = [(W_v / W)] \times 100$$

Where:

W_v = weight of VOCs in grams.
 W = weight of material in grams.

(l) To convert from grams per liter (g/l) to pounds per gallon (lb/gal), multiply the result (VOC content) by 8.345×10^{-3} (lb/gal/g/l).

§ 130.706. Container labeling.

On and after April 15, 2010, each manufacturer of an adhesive, sealant, adhesive primer or sealant primer product subject to this subchapter shall display the following information on the product container or label:

(1) A statement of the manufacturer's recommendation regarding thinning, reducing or mixing of the product, except that:

(i) This requirement does not apply to the thinning of a product with water.

(ii) If thinning of the product prior to use is not necessary, the recommendation must specify that the product is to be applied without thinning.

(2) The maximum or the actual VOC content of the product as supplied, displayed as one of the following:

(i) Weight of VOC per volume of product, less water and exempt compounds, calculated in accordance with the requirements of § 130.705(h) and (i) (relating to compliance procedures and test methods).

(ii) Weight of VOC per volume of product, calculated in accordance with the requirements of § 130.705(j).

(3) The maximum or the actual VOC content of the product as applied, which includes the manufacturer's maximum recommendation for thinning, displayed as one of the following:

(i) Weight of VOC per volume of product, less water and exempt compounds, calculated in accordance with the requirements of § 130.705(h) and (i).

(ii) Weight of VOC per volume of product, calculated in accordance with the requirements of § 130.705(j).



Pennsylvania Department of Environmental Protection

Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, PA 17105-2063
March 20, 2009

Policy Office

717-783-8727

Kim Kaufman, Executive Director
Independent Regulatory Review Commission
333 Market Street, 14th Floor
Harrisburg, PA 17101

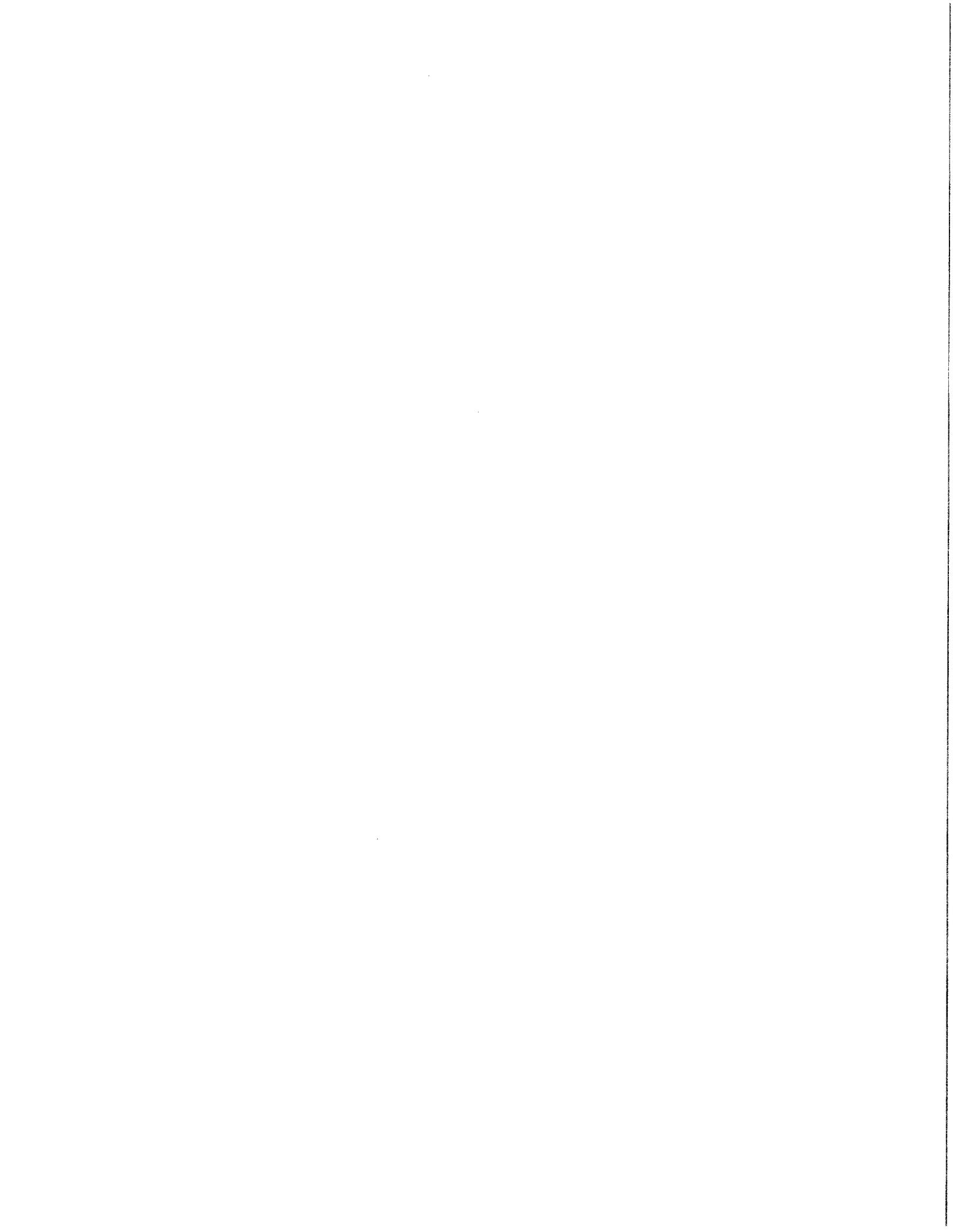
Re: Proposed Rulemaking: Adhesives, Sealants, Primers and Solvents
(25 Pa. Code, Chapters 121, 129, and 130) (#7-428)

Dear Mr. Kaufman:

Enclosed is a copy of a proposed regulation for review and comment by the Independent Regulatory Review Commission pursuant to Section 5(a) of the Regulatory Review Act. This proposal is scheduled for publication as a proposed rulemaking in the *Pennsylvania Bulletin* on April 4, 2009, with a 60-day public comment period and three public hearings scheduled in Pittsburgh, Harrisburg and Norristown. The Environmental Quality Board (EQB) adopted this proposal on December 16, 2008.

This proposed rulemaking adds VOC emission limits for the use and application of 37 categories of products that are currently unregulated in this Commonwealth, including adhesives, sealants, adhesive primers, sealant primers, and adhesive or sealant products applied to particular substrates. The rulemaking also includes requirements for the use of surface preparation solvents and cleanup solvents. The emission limitations proposed in the rulemaking will apply to the industrial and commercial use of the products, as well as their use by facility owners and operators as a part of a manufacturing process. As such, owners and operators of facilities that use or apply these products will be subject to the regulations, as well as any 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 solvents. A person who uses these products or applies for compensation in this Commonwealth to use these products will also be required to comply with the provisions in this rulemaking.

The rulemaking, once implemented, is expected to reduce VOC emissions in Pennsylvania by approximately 7,957 tons per year. The additional VOC emission reductions that will occur as a result of the rulemaking are reasonably necessary as a part of the Commonwealth's strategy to achieve and maintain the 8-hour ozone national ambient air quality standard (NAAQS) throughout the Commonwealth. The provisions contained in the rulemaking are modeled after control measures recommended by the Ozone Transport Commission in its 2006 Model Rule for adhesives, sealants and primers and would be applicable starting April 15, 2010, with certain exceptions. To provide flexibility, the rulemaking allows owners and operators that use noncompliant products to use add-on air pollution controls as a compliance alternative in lieu of the use of compliant products. Upon finalization of the



rulemaking, the regulations will be submitted to the EPA as a revision to the Commonwealth's State Implementation Plan (SIP).

The Department consulted with the Air Quality Technical Advisory Committee (AQTAC) about the proposed rulemaking on March 27 and May 23, 2008, respectively. The AQTAC unanimously concurred with the Department's recommendation to seek Board 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 Citizens Advisory Council on March 18 and May 20, 2008, and with the Small Business Compliance Advisory Committee on April 23, 2008.

The Department will provide the Commission with the assistance required to facilitate a thorough review of this proposal. Section 5(d) of the Regulatory Review Act provides that the Commission may, within 30 days of the close of the comment period, convey its comments, recommendations and objections to the proposed regulation. The Department will consider any comments, recommendation or suggestions made by the Commission, as well as the Committees and public commentators, prior to final adoption of the regulation.

Please contact me at 717-783-8727 if you have any questions or need additional information.

Sincerely,



Michele L. Tate
Regulatory Coordinator

Enclosures



RECEIVED

 TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO
 THE REGULATORY REVIEW ACT

2009 MAR 20 PM 12:49

I.D. NUMBER: 7-428

SUBJECT: Adhesives, Sealants, Primers and Solvents

AGENCY: DEPARTMENT OF ENVIRONMENTAL PROTECTION

INDEPENDENT REGULATORY
REVIEW COMMISSION

TYPE OF REGULATION

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

FILING OF REGULATION

DATE	SIGNATURE	DESIGNATION
3/20/09	<u>June Thomas</u> X	Majority Chair, HOUSE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
3/20/09	<u>M. Beaman</u> X	Minority Chair, HOUSE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
3/20/09	<u>Pat H</u> X	Majority Chair, SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
3-20-09	<u>A. Rybarczyk</u> X	Minority Chair, SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
3/20/09	<u>Dr. Melnick</u> X	INDEPENDENT REGULATORY REVIEW COMMISSION
_____	_____	ATTORNEY GENERAL (for Final Omitted only)
3/20/09	<u>Mark Fitting</u> X	LEGISLATIVE REFERENCE BUREAU (for Proposed only)

