

PENNSYLVANIA
Adhesives, Sealants, Primers and Solvents
25 Pa. Code Chapters 121, 129 and 130
39 Pa.B. 1636 (April 4, 2009)
Environmental Quality Board Regulation #7-428
(Independent Regulatory Review Commission #2755)

Comment and Response Document

Background

On April 4, 2009, the Environmental Quality Board (Board, EQB) published a notice of public hearings and comment period on a proposed rulemaking concerning amendments to 25 *Pa. Code* Chapters 121, 129 and 130 (relating to general provisions; standards for sources; and standards for products) to implement control measures for the emissions of volatile organic compounds (VOC) for the industrial or commercial use or application of 37 categories of adhesive, sealant, primer and solvent products (39 *Pa.B.* 1636). The public comment period closed on June 8, 2009.

The proposed amendments included adding § 129.77 (relating to control of emissions from the use or application of adhesives, sealants, primers and solvents) to regulate the owner or operator of a facility or stationary source that uses or applies, on or after April 15, 2010, an adhesive, sealant, adhesive primer or sealant primer product, or an adhesive or sealant product applied to a particular substrate. The proposal also included requirements for the use of surface preparation solvents and cleanup solvents. The proposal included the option to use add-on controls as a compliance alternative rather than switching to complying products, for owners and operators using noncomplying products.

The proposed amendments also added Subchapter D (relating to adhesives, sealants, primers and solvents) 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, applied 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 also applied 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.

The proposed rulemaking added 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 and Chapter 130, Subchapter D, and amended definitions for nine existing terms to provide clarity.

Public Hearings and Comment Period

Three public hearings were held on the proposed rulemaking as follows:

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

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

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

This document summarizes the testimony received during the public hearings and the written comments received from the public during the public comment period. Each public comment is provided with the identifying commentator number for each commentator that made that comment. A list of the commentators, including name, affiliation (if any), and location, can be found on the next two pages of this document. In addition, the comments received from the Independent Regulatory Review Commission (IRRC) are summarized and responses provided. No comments were received from the Senate Environmental Resources and Energy Committee.

The Board invited each commentator to prepare a one-page summary of the commentator's comments. No one-page summaries were submitted for this rulemaking.

ID	Name/Address	Submitted one page Summary for distribution to EQB	Provided Testimony	Requested Final Rulemaking following EQB Action
1.	Donald P. Gallo, Esq Reinhart Boerner Van Deuren S.C. P.O. Box 2265 Waukesha, WI 53187-2265 (On behalf of the Polyurethane Manufacturers Association, Milwaukee, WI)			
2.	Jeffrey A. Morris, Esq. Reinhart Boerner Van Deuren S.C. P.O. Box 2265 Waukesha, WI 53187-2265 (On behalf of the Polyurethane Manufacturers Association, Milwaukee, WI)			
3.	Larry Sondericker EHS Manager Superior Tire & Rubber Corp. P.O. Box 308 Warren, PA 16365			
4.	Jared O. Blum Executive Director ERA - EPDM Roofing Association 7315 Wisconsin Avenue, 400E Bethesda, MD 20814			
5.	Heidi K. McAuliffe, Esq. Counsel, Government Affairs National Paint and Coatings Association, Inc. (renamed American Coatings Association in 2010) 1500 Rhode Island Avenue, NW Washington, DC 20005			
6.	Charles Deimler Vice President Ephrata Precision Parts, Inc. 93 Monroe Street P.O. Box 323 Denver, PA 17517			

ID	Name/Address	Submitted one page Summary for distribution to EQB	Provided Testimony	Requested Final Rulemaking following EQB Action
7.	George M. Kickel* Director, Environment, Safety, Health and Regulatory Compliance Lord Corporation 2000 West Grandview Blvd. Erie, PA 16509-1029		X	
8.	Charles T. Ruffing Technical Director Rubber Rolls Inc. 50 Rockwood Drive Meadowlands, PA 15347			
9.	Michael S. Kocak, ASQ, C.Q.E. Quality Assurance Manager C.U.E. Inc. of Cranberry Township 11 Leonberg Road Cranberry Township, PA 16066 (also Regulatory Division Manager, Polyurethane Manufacturers Association, Milwaukee, WI)		X	
10.	Ron Miller – Advanced Building Products – on behalf of the EPDM Roofing Association 2891 Henderson Road Washington, PA 15301		X	
11.	Michael Palombo Performance Roofing Associates, Incorporated 120 East Uwchlan Avenue Exton, PA 19341 (On behalf of ERA - EPDM Roofing Association)		X	
12.	Bill Schneider Carlisle SynTec P.O. Box 7000 1285 Ritner Highway Carlisle, PA 17013 (also representing ERA - EPDM Roofing Association)		X	

ID	Name/Address	Submitted one page Summary for distribution to EQB	Provided Testimony	Requested Final Rulemaking following EQB Action
13.	Kim Kaufman, Executive Director Independent Regulatory Review Commission 333 Market Street, 14 th Floor Harrisburg, PA 17101			

* This commentator provided both testimony and written comments.

Abbreviations and acronyms used in this document:

- ERA – EPDM Roofing Association
- EPDM - Ethylene Propylene Diene Monomer
- HAP – Hazardous Air Pollutant
- NESHAP – National Emission Standards for Hazardous Air Pollutants
- OTC – Ozone Transport Commission
- OTR – Ozone Transport Region
- RACT – Reasonably Available Control Technology
- VOC – Volatile Organic Compound

Definitions

1. Comment: Several commentators expressed concern with the Department’s definition of the term “metal to urethane/rubber molding or casting adhesive,” which in the proposed rulemaking read as follows: “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.” Many polyurethane parts are molded in, on or around a metal piece; in this process, an adhesive is generally used to promote the bond between the metal and the polyurethane. A bond failure will cause product failure, potentially posing a risk of property damage, personal injury, or both. ‘*Heater* molding or casting processes’ does not have a recognized meaning within the polyurethane or rubber industry, but ‘*heated* molding or casting processes’ has relevance from a manufacturing perspective because both polyurethane and rubber molding and casting are performed at elevated temperatures. The commentators suggest that the use of the word ‘heater’ in this definition is a typographical error and that the word ‘heater’ should be replaced with the word ‘heated.’ (1, 2, 3, 6, 8, 9, 13)

Response: The Department agrees and has revised the definition of the term “metal to urethane/rubber molding or casting adhesive” in the final-form rulemaking to replace the word ‘heater’ with the word ‘heated.’

2. Comment: The commentators expressed concern with the Department’s definition of the term “metal to urethane/rubber molding or casting adhesive,” which in the proposed rulemaking read as follows: “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.” The commentators suggest that the modifying phrase ‘to fabricate products like rollers for computer printers or other paper handling equipment’ may be misinterpreted by regulators to restrict the category only to paper handling products and not to all products that use adhesive to bond metal and urethane/rubber. The commentators request that the phrase ‘to fabricate products like rollers for computer printers or other paper handling equipment’ be deleted from the definition of the term “metal to urethane/rubber molding or casting adhesive.” (1, 2, 3, 6, 8, 9, 13)

Response: The Department agrees that the modifying phrase ‘to fabricate products like rollers for computer printers or other paper handling equipment’ may be confusing to the industry and to regulators and has deleted this phrase from the definition of the term “metal to urethane/rubber molding or casting adhesive” in the final-form rulemaking.

3. Comment: A commentator is opposed to the proliferation of state rules regulating industrial adhesives because many companies that use the commentator’s products are already subject to a number of volatile organic compound (VOC) and hazardous air pollutant (HAP) emission standards. For example, many of the commentator’s customers must comply with the Miscellaneous Metal or Plastic Surface Coatings Standards for Hazardous Air Pollutants. Although these standards apply to the surface coating of metals

and plastic substrates, the commentator's adhesive products were specifically included in these standards, as these adhesives are applied using similar processes. The Miscellaneous Metal Surface Coating NESHAP defines these products as "coatings that contain heat-activated polymer systems in either solvent or water that, when applied to metal substrates, dry to a non-tacky surface and react chemically with the rubber and metal during a vulcanization process." In the proposed rulemaking, the commentator's customers may surmise that the "metal to urethane/rubber molding or casting adhesive" definition may be the equivalent category; however it is unclear from what the commentator refers to as the somewhat confusing language used. The commentator recommends that the term and definition of "metal to urethane/rubber molding or casting adhesive" in the proposed rulemaking be deleted and replaced with a term and definition modeled after a term and definition for "rubber vulcanization adhesive/primer" in the San Joaquin Valley Air Quality Management District Rule 4653 – Adhesives. (7)

Response: The Department disagrees with the commentator's recommendation. The Department has retained the proposed term and definition of "metal to urethane/rubber molding or casting adhesive," amended as described in response to comments number (no.) 1 and 2, above, for consistency with the model rule developed by the Ozone Transport Commission (OTC) entitled the "OTC Model Rule for Adhesives and Sealants" (OTC Model Rule), and with the regulations of other members of the Ozone Transport Region (OTR). This Commonwealth is a member of the OTR.

4. Comment: The commentator suggested that the term "rubber" be defined as in the Bay Area Air Quality Rule 8.51. The commentator believes that these changes would accommodate the concerns of the Polyurethane Manufacturers Association (PMA) and its members. (7)

Response: The Department disagrees with the commentator's recommendation. The Department did not receive comments from the PMA concerning the definition of the term "rubber." Furthermore, the definition of the term "rubber" in the Bay Area Air Quality Management District Rule 8.51 (relating to adhesive and sealant products) is similar to the definition in the Department's proposed rulemaking. In addition, the definition of the term "rubber" in the proposed rulemaking is consistent with the definition of the term "rubber" contained in the Control Techniques Guidelines (CTG) for Miscellaneous Industrial Adhesives published by the U.S. Environmental Protection Agency (EPA), EPA-453/R-08-005, September 2008 and with the definition in the OTC Model Rule. The Department has retained the proposed definition of the term "rubber" for consistency with the OTC Model Rule.

5. Comment: A commentator recommended that the definition of the term "single-ply roof membrane" be expanded to include thermoplastic membranes like thermoplastic polyolefin (TPO) and polyvinyl chloride (PVC), as these materials are also considered part of the single-ply roofing market by the commercial roofing industry. (12)

Response: The Department agrees with the commentator that the definition of the term "single-ply roof membrane" should be expanded to include TPO and PVC. The definition

of this term has been amended in the final-form rulemaking to include TPO, PVC and ketone ethylene ester (KEE). This change is consistent with the final-form definition of this term promulgated by Rhode Island and Connecticut. These states are members of the OTR, as is this Commonwealth.

6. Comment: The IRRC requested clarification on the editor's note for the term "fiberglass" and questioned if the Board would have two definitions for the term "fiberglass." (13)

Response: The Department published a definition for the term "fiberglass" in § 121.1 (relating to definitions) in two separate proposed rulemakings. The definition of the term in this proposed rulemaking specified that the definition is for purposes of §§ 129.77 and 130.702. The definition of this term in the rulemaking published for comment on April 19, 2008 (38 *Pa.B.* 1831), concerning emissions from glass melting furnaces, specified that that definition is for purposes of §§ 129.301-129.310. That rulemaking was published as a final rulemaking on June 19, 2010 (40 *Pa. B.* 3328). The definition of the term "fiberglass" in this final-form rulemaking for adhesives, sealants, primers and solvents includes both definitions, as specified.

Implementation of Single-ply Roof Membrane Requirements

7. Comment: A commentator provided that the Ethylene Propylene Diene Monomer (EPDM) Roofing Association (ERA) is comprised of members who manufacture and distribute EPDM rubber roofing membrane. The commentator stated that, as the voice of the suppliers of more than half the commercial roofing installations in the Commonwealth of Pennsylvania, the ERA remains committed to developing a "win-win" solution that effectively mitigates ground level ozone formation in Pennsylvania while also preserving the integrity and dependability of the commercial roofing system of choice for Pennsylvania citizens. (4)

Response: The Department thanks the Association for its interest and support in developing an effective adhesives and sealants regulation.

8. Comment: Commentators on behalf of the EPDM roofing industry noted that the proposed rulemaking was based on a model rule developed by the OTC, which in turn was based on the reasonably available control technology (RACT) and best available retrofit control technology determined by the California Air Resources Board. One of these commentators stated that the VOC limits of the proposed OTC Model Rule were derived from a California rule that did not anticipate the effects of cold temperatures and the unique benefits of EPDM roofing. The commentator stated that these unique benefits are not as critical in moderate climates such as California, therefore EPDM is infrequently used in California. In Pennsylvania, where temperature swings and freeze-thaw cycles are intense, the commentator stated that the high flexibility of EPDM roofing is a major consumer choice to avoid premature roof failure due to cracking or splitting. The commentator stated that climate differences also exist between Pennsylvania and California that affect installation of the currently available EPDM roofing VOC compliant

adhesives which are water-based, and that water-based adhesives are not able to be used at temperatures below 40° F and cannot be stored on rooftops at colder temperatures due to the risk of freezing. The EPDM industry therefore requested a transitional period that would allow the EPDM industry adequate time to field test new VOC-compliant adhesive formulations during colder months and to train the approximately 25,000 roofing crew members employed in Pennsylvania in the effective use of VOC-compliant adhesives under colder temperature conditions. One commentator further stated that the EPDM industry is committed to having a year-round product commercialized by January 1, 2012. (4, 10, 11, 12)

Response: The Department appreciates the EPDM roofing industry's interest in developing an effective adhesives and sealants regulation. The Department has revised the final-form rulemaking to require compliance with the VOC content limits for adhesives, sealants, primers and solvents, including single-ply roofing membrane products, by January 1, 2012. The Department believes that this compliance date will provide EPDM roofing manufacturers and Pennsylvania roofing contractors with adequate time to develop VOC-compliant products and perfect the application practices that will be effective on a year-round basis. This removes the need to have a phased-in compliance period for the use and application of single-ply roofing membrane products, which was included in the proposed rulemaking.

9. Comment: Several commentators expressed support for the Department's proposed phased-in compliance period for single-ply roofing adhesives. The EPDM industry is fully supportive of the rulemaking as proposed. (4, 10, 11, 12)

Response: The Department appreciates the commentators' support of the proposed rulemaking. Please see the response to comment no. 8 for additional information concerning the compliance date.

10. Comment: The commentator stated that documentation for a seasonal approach to phasing-in the requirements for single-ply roofing adhesives was provided previously in the research report, "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" conducted by TEGNOS Research, Inc. (4)

Response: The Department thanks the commentator for providing the research report on effective implementation of low-slope roofing industry adhesives and sealants. The Department reviewed and considered the information in this report in drafting the final-form rulemaking.

11. Comment: These commentators stated that the members of ERA, thousands of roofing contractors in Pennsylvania, support this regulation. (10, 11)

Response: The Department appreciates the commentators' support of the proposed adhesives and sealants rulemaking.

12. Comment: The commentator commended the Department on the proposed phased-in compliance period for single-ply roofing adhesives. The phased-in compliance period provides needed flexibility to minimize the economic impact of the volatile organic compound limits for adhesives on both roofing contractors and building owners in Pennsylvania. This phased-in compliance period will produce significant reductions in VOC-producing adhesives and sealants, uninterrupted employment of the thousands of roofing crew members who work in the state, and continued protection of building owners' assets with high performance EPDM roofs installed on a year-round basis. (12)

Response: The Department appreciates the commentator's support of the proposed rulemaking. See the response to comment no. 8 for additional information concerning the compliance date.

13. Comment: The commentator commended the Department on the proposed phased-in compliance period for single-ply roofing adhesives. The phased-in compliance period is consistent with regulations in place in the neighboring OTC states of New Jersey, Maryland and Delaware, placing Pennsylvania contractors on equal competitive ground with contractors from those states. (12)

Response: The Department appreciates the commentator's support of the proposed rulemaking. The Department agrees that consistent rules across states and regions are ideal to support interstate commerce. This Commonwealth is a member of the OTR. The Department used the OTC Model Rule as the basis for developing its rulemaking and has consulted with other members of the OTR in the development of the final-form rulemaking, to provide for consistency of implementation throughout the OTR. See the response to comment no. 8 for additional information concerning the compliance date.

Consistent Regulations

14. Comment: A commentator indicated support for the goal of the OTC Model Rule for adhesives and sealants since it is important for manufacturers of industrial adhesives and sealants to have uniform standards for these products. (5)

Response: The Department agrees that consistent rules across states and regions are helpful to support interstate commerce. This Commonwealth is a member of the OTR. The Department used the OTC Model Rule as the basis for developing its rulemaking and has consulted with other members of the OTR in the development of the final-form rulemaking, to provide for consistency throughout the OTR.

Sell-through and Use-through Provisions; Date-coding Provision

15. Comment: Two commentators suggested that there is an inconsistency between proposed §§ 130.702(a) and 130.702(b) in the provisions for the sell-through and use-through of noncomplying products. Section 130.702(a) prohibits the sale, supply, offer for sale or manufacture for sale in this Commonwealth of noncomplying products

manufactured on or after the proposed compliance date of April 15, 2010. Section 130.702(b) prohibits the use or application of noncomplying products in this Commonwealth on or after the proposed compliance date of April 15, 2010, no matter when the product was manufactured (even if manufactured prior to April 15, 2010). The commentators recommend that specific language be added indicating that the use and application of noncomplying products manufactured after the compliance date of the rulemaking are prohibited. (5, 13)

Response: The Department agrees with the commentators' suggestion of an inconsistency between the sell-through and use-through provisions of noncomplying adhesive, sealant, primer and solvent products. The Department has revised final-form § 130.702(b) to clarify that noncomplying products manufactured on and after the revised compliance date of January 1, 2012, may not be used or applied for compensation in this Commonwealth. The Department has also revised the final-form rulemaking to add §§ 130.707 and 130.708 (relating to product dating; and sell-through of products) to allow the sell-through of non-complying product manufactured before January 1, 2012, if the product container or package displays the date on which the product was manufactured.

16. Comment: A commentator responded to the Board's request in the Preamble for comment on whether there should be a date-coding requirement incorporated into the final-form regulations to facilitate enforcement of the regulation and sale and use of product manufactured before the compliance date (sell-through and use-through). See 39 *Pa.B.* 1636 at p. 1641 (April 4, 2009). The commentator suggests that it would be simpler and more cost effective to make the compliance deadline 24 months from the date that the final rule is published. According to the commentator, a sell-through or use-through provision would force users to stockpile product which is a costly expense in difficult economic times. (7)

Response: The Department disagrees. Many complying adhesives, sealants, primers and solvents have already been developed, or reformulated from noncomplying products, due to similar rules having been promulgated in California and other states in the OTR. The final-form rulemaking has been amended to include date-coding and sell-through provisions to allow for the sell-through of noncomplying product manufactured before the compliance date.

Burden of Compliance

17. Comment: A commentator suggests that the rule places the burden of compliance on the manufacturer and seller of adhesives, sealants, primers or solvents to ensure that noncompliant product is not sold to customers that do not have control systems in place. In effect, the rulemaking requires the manufacturer or seller of the product to determine if the rule applies to the customer. (7)

Response: The Department disagrees. An adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent product intended for use or application at a manufacturing facility subject to § 129.77 does not require the

manufacturer or supplier of the product to verify that the facility has a control system in place. The manufacturer or seller of the product is exempt from Subchapter D in this situation, under § 130.703(e) (which was labeled as § 130.703(i) in the proposed rulemaking). The burden of compliance will fall on the owner or operator of the manufacturing facility that is using or applying noncomplying product to demonstrate that the noncomplying product was used or applied in accordance with the requirements of § 129.77(g), which lists the requirements for the use of add-on air pollution control equipment to control emissions of VOC from noncomplying product subject to § 129.77.

18. Comment: The commentator suggested that the burden of compliance will fall on the manufacturer or seller who will have to bear a disproportionate amount of technical service and regulatory support costs to assist their customers in identifying and re-qualifying alternate adhesive systems or determining if their use meets the allowable exemptions. The commentator recommends that the language that places a compliance burden on the manufacturer and seller be removed from the proposed rule. (7)

Response: Please see the response to comment no. 17.

19. Comment: The commentator does not understand how the requirement to not sell noncompliant product to customers that do not have control systems in place will be enforced equally between manufacturers of adhesives located in Pennsylvania and those located outside the United States. The commentator asserts that the responsibility for compliance be placed with the user of the material and the Department and not with the seller. (7)

Response: Please see the response to comment no. 17

20. Comment: Some commentators expressed concern with the compliance date of the proposed regulation and stated that the Department must provide a reasonable compliance date that allows for implementation of the rule's requirements. The IRRC commented that because the Board does not know exactly when this regulation will officially be promulgated, the Board should consider replacing the April 15, 2010, compliance date with a reference to a specific amount of time after the effective date of the regulation. (5, 7, 13)

Response: The Department agrees that it must provide a reasonable compliance date. The proposed compliance date of April 15, 2010, has been revised to January 1, 2012, in the final-form rulemaking. The Department does not agree that it must replace the proposed compliance date with a reference to a specific amount of time after the effective date of the regulation. The Department is able to estimate within a reasonable time frame when this final-form rulemaking will be published and effective, and has extended the compliance date taking that time frame and the needs of the regulated industry into account.

21. Comment: The commentators suggested that the proposed compliance deadline is not achievable to design, build, install, test and obtain permit approval of add-on air pollution control devices. The commentators suggest that the rulemaking allow 2 years after

adoption of the final-form rule for regulated industry to make the appropriate changes to their operations. (5, 7, 13)

Response: The Department has revised the final-form rulemaking compliance deadline from April 15, 2010, to January 1, 2012. The Department agrees, however, that this compliance deadline may not be achievable for the design and installation of add-on controls. The Department has amended proposed § 129.77(g) to provide the option for an extension to the compliance date for the owner or operator of a facility that intends to comply with this section through the use of add-on air pollution control equipment.

22. Comment: Two commentators suggested that the proposed compliance deadline is not achievable for the reformulation of adhesives. They asserted that it is not realistic to develop, reformulate, test and achieve final customer approval for a new adhesive in less than one year. The commentators suggest that the rulemaking allow 2 years after adoption of the final-form rule to allow proper reformulation and customer acceptance testing to occur. (7, 13)

Response: The Department disagrees that the regulated industry needs 2 years after adoption of the final-form rulemaking to comply with the requirements. The Department has revised the final-form rulemaking to require compliance beginning January 1, 2012. The Department believes that this revised compliance date, in addition to the fact that many complying adhesives, sealants, primers and solvents have already been developed, or reformulated from noncomplying products, due to similar rules having been promulgated in California and other states in the OTR, will provide the regulated industry with sufficient resources to comply.

23. Comment: A commentator expressed concern that its products manufactured in Pennsylvania will be at a competitive disadvantage in the marketplace, due to inadequate time for proper reformulation and customer acceptance testing. (7)

Response: The Department disagrees that the commentator will be at a competitive disadvantage. The Department has revised the final-form rulemaking to require compliance beginning January 1, 2012. Further, many states, including California and several members of the OTR, have implemented rules with VOC content limits and requirements similar to the Department's proposed rulemaking. Manufacturers and users in states outside this Commonwealth will be required to manufacture and buy products that meet the same limits as were in the proposed rulemaking, creating a market for complying products manufactured in Pennsylvania. Additionally, the EPA issued the Control Techniques Guidelines (CTG) for Miscellaneous Industrial Adhesives in 2008. The CTG provides states in ozone nonattainment areas and in the OTR with guidance on what constitutes RACT for emissions of VOCs from miscellaneous industrial adhesives. The EPA reviewed the California rules and the OTC Model Rule for Adhesives and Sealants prior to developing its guidance for RACT for miscellaneous industrial adhesives. The OTR states are required to adopt RACT regulations for miscellaneous industrial adhesives, based on the EPA's CTG.

24. Comment: The commentator expressed concern that its customers outside of Pennsylvania would incur additional costs associated with reformulation. (7)

Response: The Department disagrees. Noncomplying products may be sold outside of this Commonwealth to a customer in a state or region that does not have the VOC content limits that are proposed to be implemented in this Commonwealth.

25. Comment: The commentator suggested that the rule imposes a competitive disadvantage on Pennsylvania manufacturers. Manufacturers outside of Pennsylvania are able to choose adhesives on the basis of performance and cost without incurring additional operational costs to control emissions beyond what is required by the U.S. EPA. (7)

Response: The Department disagrees that the proposed rulemaking imposes a competitive disadvantage on Pennsylvania manufacturers. Noncomplying products may be sold outside of this Commonwealth to a customer in a state or region that does not have the VOC content limits that are proposed to be implemented in this Commonwealth. Many states, including California and several members of the OTR, have implemented rules with VOC content limits and requirements similar to the Department's proposed rulemaking. Manufacturers and users in these states will be required to buy products that meet the same limits as were in the proposed rulemaking, creating a market for complying products manufactured in Pennsylvania.

26. Comment: The commentator is opposed to the proliferation of state rules regulating industrial adhesives since many of the companies that use the commentator's adhesives are subject to a number of VOC and HAP emissions standards. These are primarily source specific emission limits that are policed through facility operating permits. Regulation through a state product rule will make compliance even more complicated and confusing and will increase the regulatory burden on these facilities. Furthermore, these rules limit operational flexibility and may even discourage users from adopting more environmentally friendly adhesives. (7)

Response: The Department disagrees that the proposed rulemaking adds an additional regulatory burden to the regulated community. Final-form §§ 129.77(1)(2) and 130.703(a)(2) specify that the requirements do not apply to adhesives, sealants, adhesive primers or sealant primers that are subject to § 129.73 or Chapter 130, Subchapter B or Subchapter C (relating to aerospace manufacturing and rework; consumer products; and architectural and industrial maintenance coatings). Those regulations contain requirements for certain adhesive products that are not regulated under the proposed rulemaking. Hazardous air pollutant (HAP) emission standards are Federal requirements on specific source categories. A HAP may or may not be a VOC.

27. Comment: The commentator stated that compliance with the Plastic and Metal Surface Coating NESHAP is based on a 12-month rolling average with an adhesive coating category limit expressed in pounds of HAP per gallon of applied solids rather than pounds per gallon or grams per liter. This allows facilities to use noncomplying products as long as the overages are compensated by other materials that are significantly below the

limit. The commentator recommended that the Department consider using a rolling average in the proposed rule. (7)

Response: The Department disagrees with the commentator's suggestion to adopt a 12-month rolling average. Compliance with the requirements of this proposed rulemaking is expected to be through the use of compliant products, consistent with the requirements of the OTC Model Rule. An owner or operator of a facility may seek compliance through the use of add-on controls to control the emissions from noncomplying products. Compliance using add-on controls will be evaluated on a daily basis, consistent with the requirements of the OTC Model Rule. An owner or operator of a facility may also seek compliance with the requirements of § 129.77 through the use of an equivalency under § 129.51(a) (relating to general). This option allows the owner or operator to request approval of an averaging approach specified in a plan approval application and memorialized in a permit under the equivalency provision.

28. Comment: The commentator stated that, if restricted to a reasonably available control technology rule limit, operations may find it difficult to comply, particularly in applications where the demands of the bonded assembly or product specification make a high-VOC product necessary. In these instances, a control device may be the only immediate solution. Although control devices are typically thought of as an acceptable means to compliance, installation of a control device is costly and significantly increases operating expenses. These facilities may simply shift their business to other non-regulated states, or perhaps cease operations altogether. Increasing use of control devices will result in an increase in CO₂ and consumption of natural resources, creating a shift in environmental problems. The only real solution to all of these environmental issues is increased use of aqueous or non-voc containing adhesives. However, once these adhesive users have control devices in place, there is little incentive for them to evaluate and substitute compliant adhesives because the costs associated with re-qualifying a new adhesive are quite high and the process is resource intensive. Furthermore, facilities cannot simply shut down and start up incinerators at will, so these sources cannot abandon this method of control until there are VOC compliant alternatives available for every conceivable bonded assembly manufactured. For this reason the commentator believes that the best environmental and economic approach is to regulate this industry only with source specific emission limits, rather than through a general industrial adhesive rule that invokes category specific emission limits. An acceptable approach to this scenario would be to exempt Title V facilities from this industrial adhesives rule. (7)

Response: The Department disagrees. The Title V program consolidates applicability requirements for a facility. Exempting Title V facilities would exempt major sources of emissions.

VOC Test Methodology

29. Comment: A commentator requested that an EPA-approved alternative test method for 2-component reactive adhesives, codified in Appendix A of the Plastic Surface Coating

NESHAP (40 CFR 63, Subpart PPPP, Appendix A), be added to §§ 129.77(s) and 130.705(a). (7)

Response: The Department has reviewed the EPA Reference Method, *Determination of Weight Volatile Matter Content and Weight Solids Content of Reactive Adhesives*, for 2-component reactive adhesives codified in Appendix A of Subpart PPPP and agrees that it should be included on the list of test methods listed in §§ 129.77(s) and 130.705(a). This revision has been made to the final-form rulemaking.

Written and Oral Contracts

30. Comment: The Independent Regulatory Review Commission (IRRC) stated that proposed §§ 129.77(i) and 130.702(g) include a prohibition on the use of a material that would result in a violation of the regulation. Further, this prohibition applies to “all written or oral contracts” under which any of these materials would be used. The IRRC asks if the Board intends to apply this provision retroactively. If so, the IRRC requests that the Board outline its authority to do so. If not, the IRRC requests that the Board clarify the provisions to state that they will be applied prospectively. (13)

Response: The Department appreciates the IRRC’s concern. The final-form rulemaking has been revised to clarify that this prohibition applies to written or oral contracts that are created on or after the compliance date of this regulation.

Records and Reporting Requirements

31. Comment: The IRRC requested clarification on how the records required under proposed subsections 129.77(l)(4), (n) and (o), and 130.703(b)(4), (e) and (f) shall be recorded and maintained by the owner or operator. (13)

Response: The Department disagrees with the statement that the rulemaking should be amended for clarity on recordkeeping. Subsections 129.77(l)(4), (n) and (o) (the latter two relabeled as (m) and (n) in the final-form rulemaking) each clearly states that an owner or operator claiming an exemption under the section shall record and maintain operational records sufficient to demonstrate compliance with this exemption, in accordance with subsections (p)--(r) (relabeled as (o)—(q) in the final-form rulemaking). Subsection 130.703(b)(4) clearly states that 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 (relating to recordkeeping requirements). Proposed subsections 130.703(e) and (f) have been deleted from the final-form rulemaking, mooted the comment with regard to these two subsections. Requiring the owners and operators of regulated facilities to maintain records is a standard requirement. This requirement is found in many Board-approved regulations, including § 129.52(g) (relating to surface coating processes), for instance. The owners and operators of regulated sources have not had difficulty understanding or complying with requirements to make and maintain records.

32. Comment: The IRRC requested clarification of the requirement in proposed § 129.77(r)(1) for maintaining records. Can the records be maintained in electronic or paper format? The final-form regulation should indicate in what format these records must be maintained. (13)

Response: The Department disagrees that the final-form rulemaking must specify in what format the records must be maintained. Requiring the owners and operators of regulated facilities to maintain records is a standard requirement found in many Board-approved regulations, including § 129.52(g), for instance. The owners and operators of regulated sources have not had difficulty understanding or complying with this requirement.

33. Comment: The IRRC requested clarification of whether the Department's requests for records under proposed § 129.77(r)(2) will be made orally or in writing. The final-form rulemaking should indicate in what format the requests will be made. (13)

Response: The Department agrees and has revised the final-form rulemaking to specify that the records shall be submitted to the Department upon receipt of a written request.