

Regulatory Analysis Form		This space for use by IRRC
(1) Agency Department of Environmental Protection Bureau of Air Quality		RECEIVED 2000 MAR 28 AM 11:11 DEPARTMENT OF ENVIRONMENTAL PROTECTION REVIEW COMMISSION
(2) I.D. Number (Governor's Office Use) 7-339		Harbison IRRC Number: 2007
(3) Short Title Surface Coating Processes (RBI #4)		
(4) Pa. Code Cite 25 Pa. Code §§ 121.1, 129.52, 129.91, 129.101-107, 139.4, 139.14	(5) Agency Contacts & Telephone Numbers Primary Contact: Sharon Freeman, 717-783-1303 Secondary Contact: Barbara Sexton, 717-783-1303	
(6) Type of Rulemaking (Check One) <input type="checkbox"/> Proposed Rulemaking <input checked="" type="checkbox"/> Final Order Adopting Regulation <input type="checkbox"/> Final Order, Proposed Rulemaking Omitted	(7) Is a 120-Day Emergency Certification Attached? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes: By the Attorney General <input type="checkbox"/> Yes: By the Governor	
(8) Briefly explain the regulation in clear and nontechnical language. <p>The final revisions to §121.1 add several new definitions and revise or delete certain existing definitions. The amendments to § 129.52 delete the existing language concerning the requirement to adjust to a standard solvent density of 7.36 pounds per gallon and to a solids basis; propose VOC emission limits and calculations using units of pounds of VOC per gallon of coating solids or per pound of coating solids; add equations for calculating the 30 day rolling average VOC content for dip coating processes; revise the recordkeeping requirements to require data specifically appropriate to the compliance calculations; add an exemption for small quantities of coatings used for touch-up and repair; and convert the existing Table I to a volume-solids-based and weight-solids-based table of compliance limits. The amendments also add §§ 129.101-129.107, Wood Furniture Manufacturing Operations, adopting the federal guidance published in EPA-453/R-96-007, Control of Volatile Organic Compound Emissions From Wood Furniture Manufacturing Operations. In addition, this final rulemaking includes an amendment to § 129.91 which clarifies that the existing reasonably available control technology (RACT) requirements do not apply to wood furniture manufacturing facilities subject to § 129.52, Table I, Category 11 and §§ 129.101-129.107. Minor revisions in Chapter 139 (relating to sampling and testing) include a correction for the name of the Department in §139.4 and the addition of several applicable terms in § 139.14.</p>		

1000

Regulatory Analysis Form

(9) State the statutory authority for the regulation and any relevant state or federal court decisions.

This action is taken under the authority of the Air Pollution Control Act (35 P.S. §§ 4001- 4015).

(10) Is the regulation mandated by any federal or state law or court order, or federal regulation? If yes, cite the specific law, case or regulation, and any deadlines for action.

The revisions to §§ 121.1, 129.52, 139.4 and 139.14 that were identified during the Regulatory Basics Initiative are not mandated by any federal or state law, court order or federal regulation.

The requirements in §§ 129.101-129.107 are mandated under Section 182 of the Clean Air Act. These provisions will implement EPA's presumptive RACT requirements established in the Control Techniques Guidelines (CTG) document issued by EPA entitled "Control of Volatile Organic Compound Emissions from Wood Furniture Manufacturing Operations," EPA-453/R-96-007 (61 FR 25223, May 20, 1996). The Department should have submitted a State Implementation Plan (SIP) revision to EPA by May 20, 1997, requiring affected sources to comply with the presumptive RACT provisions by May 20, 1998.

The final changes in § 129.91(a) are not required under any federal or state law, court order or federal regulation.

(11) Explain the compelling public interest that justifies the regulation. What is the problem it addresses?

The surface coating process amendments are the fourth in a series of changes implementing the Department's Regulatory Basics Initiative and Executive Order 1996-1. Section 129.52 was addressed in the RBI review of Regulations Which Lack Clarity, Regulations With Significant Noncompliance and Regulations Imposing Disproportionate Costs.

Sections 129.101-129.107 will implement the federal presumptive RACT requirements for wood furniture manufacturing operations established in a CTG issued by EPA pursuant to Section 182 of the Clean Air Act (61 FR 25223, May 20, 1996). On September 27, 1996, EPA issued an addendum to the CTG requiring States to submit a revision to the SIP for the wood furniture manufacturing industry no later than May 20, 1997 (61 FR 50823). These amendments establish coating emission limitations to reduce VOC emissions from affected sources in ozone nonattainment areas.

(12) State the public health, safety, environmental or general welfare risks associated with non-regulation.

The regulations establish control techniques for VOC emissions from surface coating processes. VOCs contribute to the formation of ground-level ozone. Ground-level ozone contributes to: impairment of lung function and other respiratory diseases in humans and animals; foliar damage of crops, forests, and ornamental plants; and haze, which reduces ground-level visibility and sometimes interferes with aviation. Use of organic solvents in the workplace can also expose workers to high levels of volatile organic compounds and other toxic chemicals.

(13) Describe who will benefit from the regulation. (Quantify the benefits as completely as possible and approximate the number of people who will benefit.)

Approximately 370 non-wood surface coating facilities and 80 manufacturers of wood furniture will benefit from the adoption of simplified equations for calculating the VOC content of surface coatings by not needing to hire consultants to analyze records and calculate VOC content. The final recordkeeping requirements will reduce the FTEs (full time equivalents) of work needed for recordkeeping and reporting. The projected savings are estimated to be .25 FTE per facility per year at an average salary and benefits of \$50,000 for the 450 facilities, for estimated total annual savings of \$5,625,000.

(14) Describe who will be adversely affected by the regulation. (Quantify the adverse effect as completely as possible and approximate the number of people who will be adversely affected.)

These regulations should not adversely affect the regulated community, citizens of the Commonwealth or governmental entities.

(15) 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.)

Approximately 450 facilities are currently evaluated for compliance with the existing regulations, including about 80 wood surface coating facilities. The owners/operators of at least 20 of these wood surface coating facilities submitted case-by-case RACT determinations to the Department for approval. Most of the case-by-case RACT determinations include all or a portion of the components of the presumptive RACT requirements established in the CTG and EPA's model rule for wood furniture manufacturing operations. With an applicability threshold for actual or potential VOC emissions of 25 tons or more per year, other wood furniture manufacturing operations may have to demonstrate compliance under §§ 129.101-129.107.

(16) Describe the communications with and input from the public in the development and drafting of the regulation. List the persons and/or groups who were involved, if applicable.

The proposed rulemaking was published in the Pennsylvania Bulletin on March 6, 1999 (29 Pa. B. 1299). Four public hearings were held on the proposal at the following Regional Offices of the Department of Environmental Protection: April 6, 1999 at the Southwest Regional Office, April 7, 1999 at the Southcentral Regional Office, April 8, 1999 at the Southeast Regional Office, and April 9, 1999 at the Northcentral Regional Office. The public comment period closed on May 10, 1999. Testimony received during the public hearings and written comments received during the public comment period are summarized in the accompanying comment and response document. The proposed and final rulemaking packages were discussed with the Small Business Compliance Advisory Committee. In addition, the Air Quality Technical Advisory Committee (AQTAC) recommended, on August 23, 1999, that the surface coating processes final rulemaking package be submitted to the Environmental Quality Board (Board) for consideration.

Regulatory Analysis Form

(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.

The estimated 450 surface coating facilities currently regulated should realize a savings through reduced recordkeeping and consulting costs. The equations for calculating VOC content are clearly expressed in § 129.52. Therefore, the hiring of consultants to review records and to calculate VOC content for compliance purposes should be reduced. Companies are expected to reduce recordkeeping and reporting efforts by about .25 FTE per facility per year at an average salary and benefits of \$50,000, producing a savings of approximately \$5,625,000 per year. The approximately 20 wood furniture manufacturing operations which would be subject to the requirements in §§ 129.101-129.107 have already implemented the additional recordkeeping and reporting requirements as part of their case-by-case RACT determinations and underlying permit terms and conditions. If EPA approves the case-by-case RACT permits as SIP revisions prior to the effective date of this rulemaking, the presumptive RACT requirements for wood furniture manufacturing would not apply to those facilities.

(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.

These final changes should not result in any costs or savings to local governments because they are not owners or operators of surface coating facilities.

(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.

This final rulemaking should have no effect on the costs to the Commonwealth for inspection and compliance monitoring of the existing regulated non-wood furniture manufacturing operations.

These amendments are not expected to increase the costs to the Commonwealth for inspection and compliance monitoring activities. Affected wood furniture manufacturing operations are already being inspected by the Department to determine compliance with wood furniture surface coating requirements in 25 Pa. Code § 129.52 and the existing case-by-case RACT requirements in 25 Pa. Code §§ 129.91-129.95. Therefore, these final changes should not impose any additional costs on state government entities that own or operate affected surface coating operations.

Regulatory Analysis Form

(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	FY +1 Year	FY +2 Year	FY +3 Year	FY +4 Year	FY +5 Year
SAVINGS:	\$	\$	\$	\$	\$	\$
Regulated Community	5,625,000	5,906K	6,201K	6,512K	6,837K	7,179K
Local Government	0	0	0	0	0	0
State Government	0	0	0	0	0	0
Total Savings	5,625,000	5,906K	6,201K	6,512K	6,837K	7,179K
COSTS:						
Regulated Community						
Local Government						
State Government						
Total Costs	0	0	0	0	0	0
REVENUE LOSSES:						
Regulated Community						
Local Government						
State Government						
Total Revenue Losses	0	0	0	0	0	0

(20a) Explain how the cost estimates listed above were derived.

The cost savings to the 450 surface coating operations are based on a reduction of .25 FTE per facility per year in recordkeeping and reporting efforts, at an average salary and benefits of \$50,000 for a total of \$5,625,000 for the current FY.

Estimates for the future fiscal years are based on an average rate of inflation of 5% per year.

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

(in millions of dollars)

Program	FY-3	FY-2	FY-1	Current FY
	95-96	96-97	97-98	98-99
Air Quality	23	25.1	27	29.7
				(estimated)

Regulatory Analysis Form

(21) Using the cost-benefit information provided above, explain how the benefits of the regulation outweigh the adverse effects and costs.

The anticipated savings to the regulated community generated by these amendments are estimated to be \$5,625,000 due to reduced recordkeeping and reporting requirements.

(22) Describe the nonregulatory alternatives considered and the costs associated with those alternatives. Provide the reasons for their dismissal.

The revisions, in part, implement changes recommended in the Department's Regulatory Basics Initiative. The presumptive RACT requirements for the wood furniture manufacturing industry are mandated under Section 182 of the Clean Air Act. Therefore, the Department did not consider non-regulatory alternatives to these amendments.

(23) Describe alternative regulatory schemes considered and the costs associated with those schemes. Provide the reasons for their dismissal.

The final changes to the surface coating process provisions in § 129.52 implement changes recommended in the Department's Regulatory Basics Initiative.

The adoption of §§ 129.101-129.107 (relating to wood furniture manufacturing operations) implements the CTG requirements in EPA's "Control of Volatile Organic Compound Emissions From Wood Furniture Manufacturing Operations" (EPA-453/R-96-007). The presumptive RACT requirements for the wood furniture manufacturing industry are mandated under Section 182 of the Clean Air Act. Therefore, the Department did not consider alternative regulatory schemes to these amendments.

(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 regulation.

Several commentators suggest that the existing provisions in § 129.52(f) could be more stringent than the presumptive RACT requirements. The existing requirements for wood furniture manufacturing operations in § 129.52(f) and Table I, Category 11 will continue to apply to wood furniture manufacturing facilities that are subject to the presumptive RACT requirements mandated under Section 182 of the Clean Air Act. The existing provisions for surface coating processes with actual emissions to the outdoor atmosphere of three pounds per hour, 15 pounds per day or 2.7 tons per year were adopted on May 7, 1988. See 18 Pa.B. 2098 (May 7, 1988). These VOC emission limits are being retained to ensure that the Commonwealth does not inadvertently reduce the amount of VOC emissions currently controlled and accounted for in the Commonwealth's emission reduction plans. Facilities subject to § 129.52 and the presumptive RACT requirements in §§ 129.101-129.107 only have to demonstrate compliance with the more stringent provision. Because the entire Commonwealth is included in the Ozone Transport Region established under Section 184 of the Clean Air Act, 42 U.S.C. § 7511(c), retention of § 129.52 is justified by a compelling Pennsylvania interest, achieving and maintaining the NAAQS for ozone.

Regulatory Analysis Form

(25) How does the regulation compare with those of other states? Will the regulation put Pennsylvania at a competitive disadvantage with other states?

Section 182 of the Clean Air Act requires States to submit a revision to the SIP to establish RACT for the control of emissions from each category of VOC sources covered by a CTG issued by the EPA Administrator. The CTGs establish a "presumptive norm" for RACT sources located in ozone nonattainment areas. Consequently, the VOC emission limitations in § 129.52 are consistent with the standards adopted by other states to implement the CTGs for surface coating operations including cans, coils, paper, fabric, automobiles, light duty trucks and metal furniture.

EPA's CTG and model rule for the control of VOC emissions from wood furniture manufacturing operations serve as the basis for the requirements in §§ 129.101-129.107. At least 900 wood furniture facilities in other states must also comply with the same presumptive RACT requirements. Therefore, the adoption of presumptive RACT requirements should not put wood coating operations in Pennsylvania at a competitive disadvantage with those operations in other states.

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

These amendments are not expected to affect other existing or proposed regulations of the Department or other state agencies.

(27) Will any public hearings or informational meetings be scheduled? Please provide the dates, times, and locations, if available.

The EQB held four public hearings, beginning at 10:00 a.m., at the following Department Regional Offices: Southwest Regional Office (Pittsburgh) on April 6, 1999; Southcentral Regional Office (Harrisburg) on April 7, 1999; Southeast Regional Office (Conshohocken) on April 8, 1999; and Northcentral Regional Office (Williamsport) on April 9, 1999. The public comment period and opportunity to provide written comments closed on May 10, 1999.

(28) Will the regulation change existing reporting, recordkeeping, or other paperwork requirements? Describe the changes and attach copies of forms or reports which will be required as a result of implementation, if available.

The final rulemaking requires all affected surface coating operations to keep records of the following parameters for each as supplied coating, thinner, and other component: gallons used; mix ratio; density or specific gravity; weight percent of total volatiles, water, solids and exempt solvents; volume percent of solids; VOC content; and the VOC content of each coating as applied. The amendments to § 129.52 provide for affected dip coating facilities to keep records documenting 30-day rolling averages of the VOC content of the coatings in the reservoir. The records must be submitted to the Department according to a schedule prescribed by the Department.

Regulatory Analysis Form

Wood surface coating facilities currently are required to retain their records for 2 years pursuant to § 129.52 and do not have a work practices requirement. The provisions in §§ 129.101-129.107 require affected facilities to retain their records for at least 5 years. These records include certified product data sheets for each coating, documentation of VOC content of any solvent or other component added to the coating before application and the VOC content of each as applied coating, in units of lbs VOC/lb coating solids. The owners or operators of the facilities must implement work practices and keep additional records relating to the work practice standards, including a work practice implementation plan, operator training program, leak inspection and maintenance program, and cleaning and washoff solvent accounting system.

Affected wood furniture manufacturing facilities applying coating using continuous coaters must keep records of solvent and coating additions to the continuous coating reservoir and of viscosity measurements. When demonstrating compliance through the use of a control system, facility operators must keep records to support both the required and the actual overall control efficiency and the site-specific operating parameter values. The affected facilities must also submit and maintain copies of the initial compliance reports and the semi-annual continuous compliance reports.

At least 20 of the affected wood manufacturing facilities have implemented the presumptive RACT work practices and additional recordkeeping changes already as part of their case-by-case RACT determinations submitted to EPA for approval as SIP revisions. Should the EQB adopt the presumptive RACT regulations prior to EPA's approval of SIP revisions for case-by-case RACT determinations, the unapproved SIP submittals will be withdrawn and the affected facilities regulated under the state's presumptive RACT regulation.

(29) Please list any special provisions which have been developed to meet the particular needs of affected groups or persons including minorities, elderly, small businesses, and farmers.

These amendments may affect small businesses. Compliance assistance is available to this affected group through the Department's Small Business Assistance Program. This final rulemaking allows affected facilities to use one of three methods or a combination of methods to comply with the presumptive RACT requirements and does not mandate the use of control devices requiring significant capital investments.

(30) What is the anticipated effective date of the regulation; the date by which compliance with the regulation will be required; and the date by which any required permits, licenses or other approvals must be obtained?

The effective date is anticipated to be early-2000. The regulations will become effective upon publication in the *Pennsylvania Bulletin* as final rulemaking. Compliance with § 129.52 is required on the effective date of the regulations. Compliance with §§ 129.101-129.107 is required within one year after meeting the VOC applicability thresholds.

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

The regulations will be reviewed in accordance with the sunset review schedule published by the Department.

**FACE SHEET
FOR FILING DOCUMENTS
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LEGISLATIVE REGULATORY
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(DEPUTY ATTORNEY GENERAL)

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of a document issued, prescribed or promulgated by:

DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD

(AGENCY)

DOCUMENT/FISCAL NOTE NO. 7-339

DATE OF ADOPTION: _____

BY: _____

TITLE: JAMES M. SEIF, CHAIRMAN
(EXECUTIVE OFFICER, CHAIRMAN OR SECRETARY)

Copy below is hereby approved as to
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Agencies

BY: _____

3-23-00

DATE OF APPROVAL

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

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

ORDER ADOPTING REGULATIONS

DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD

Surface Coating Processes (RBI #4)

25 PA Code Chapters 121, 129, and 139

NOTICE OF FINAL RULEMAKING

DEPARTMENT OF ENVIRONMENTAL PROTECTION ENVIRONMENTAL QUALITY BOARD

[25 Pa. Code Chapters 121, 129 and 139] “Surface Coating Processes and Wood Furniture Manufacturing Operations”

ORDER

The Environmental Quality Board (Board), by this Order amends 25 *Pa. Code* Chapters 121, 129 and 139 (relating to general provisions; standards for sources; and sampling and testing) to read as set forth in Annex A.

These amendments provide procedures for determining compliance with the volatile organic compound (VOC) emission limits for surface coating processes in § 129.52 (relating to surface coating processes). These amendments include an averaging approach for evaluating VOC emissions; an exemption for small quantities of coatings; and revision of the existing Table I to express VOC content in volume-solids-based and weight-solids-based emission limits. The amendments also establish presumptive reasonably available control technology (RACT) requirements for wood furniture manufacturing operations in §§ 129.101-129.107. The presumptive RACT requirements, based on the EPA's Control Techniques Guidelines (CTG), apply statewide to VOC-emitting wood furniture manufacturing facilities with actual or potential emissions of 25 tons per year or more of VOCs. These amendments will be submitted to EPA as a revision to the State Implementation Plan.

This final rulemaking was adopted by the Board at its meetings of December 21, 1999, and March 21, 2000.

A. Effective Date

These amendments will be effective immediately upon publication in the *Pennsylvania Bulletin* as final rulemaking.

B. Contact Persons

For further information, contact Terry Black, Chief, Regulation and Policy Development Section, Division of Air Resources Management, Bureau of Air Quality, Rachel Carson State Office Building, 12th Floor, P.O. Box 8468, Harrisburg, PA 17105-8468, (717) 787-4310; or Joyce E. Epps, Assistant Counsel, Bureau of Regulatory Counsel, Office of Chief Counsel, Rachel Carson State Office Building, 9th Floor, P.O. Box 8464, Harrisburg, PA 17105-8464, (717) 787-7060.

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 final rulemaking is available through the Department of Environmental Protection (Department) Web site (<http://www.dep.state.pa.us>).

C. Statutory Authority

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

D. Background and Purpose

These amendments include regulatory changes which implement the Bureau of Air Quality's Regulatory Basics Initiative (RBI) mandated under the "Directive on Review of Existing Regulations and Technical Guidance" issued by Secretary Seif on August 4, 1995 and Executive Order 1996-1 (Regulatory Review and Promulgation). The changes for the surface coating provisions in § 129.52 (relating to surface coating processes) are the fourth in a series of amendments to the air resources regulations under the RBI. The revisions to § 129.52 delete existing regulatory language to adjust coatings to a standard solvent density of 7.36 pounds per gallon and to a solids basis. The amendments also require the owners and operators of affected facilities to calculate and express the VOC content of the as applied coatings in volume-solids-based and weight-solids-based units and add criteria to allow for emission averaging of VOCs in certain surface coating processes on a 30-day rolling average basis. An exemption for small quantities of coatings used for touch-up and repair is also included in this final rulemaking.

These amendments also establish presumptive RACT requirements for certain wood furniture manufacturing operations. Section 183(a) of the Clean Air Act requires the United States Environmental Protection Agency (EPA) to issue CTGs for 11 categories of stationary sources of VOCs. On May 20, 1996, the EPA published a CTG document for control of VOCs from wood furniture manufacturing operations including wood furniture finishing, cleaning and washoff operations (61 *FR* 25223, May 20, 1996). The wood furniture manufacturing operations CTG establishes a "presumptive norm" RACT for the control of affected stationary sources. The standards apply to wood furniture manufacturing facilities located in marginal, moderate, serious and severe ozone nonattainment areas or ozone transport regions that emit or have the potential to emit 25 tons per year or more of VOCs. The CTG and a model rule for wood furniture manufacturing operations were developed by the EPA after reaching consensus among representatives from the environmental community, the wood furniture industry, and state permitting agencies.

On September 27, 1996, EPA published an addendum to the CTG which specified dates for the adoption and implementation of the standards. The notice required states that had not adopted an EPA-approvable RACT rule for wood manufacturing facilities to submit a RACT rule to the EPA on or before May 20, 1997 as a revision to the State Implementation Plan (SIP).

State rules should have required affected sources to install and operate control devices or implement procedures to demonstrate compliance no later than May 20, 1998 (61 *FR* 50823, September 27, 1996).

The Department consulted with the Air Quality Technical Advisory Committee (AQTAC) during the development of this final rulemaking. On August 23, 1999, the AQTAC recommended that the final rulemaking be submitted to the Board for consideration. The Department also discussed the final-form regulations with the Small Business Compliance Advisory Committee. Following promulgation of the amendments to Chapters 121, 129 and 139, the provisions will be submitted to EPA as a SIP revision.

E. Summary of Regulatory Requirements and Changes from Proposed to Final

These amendments implement the fourth series of changes under the Department's RBI for air resources regulations and establish criteria to implement the presumptive RACT requirements for wood furniture manufacturing operations. The presumptive RACT requirements establish limitations on VOC emissions and the implementation of work practice standards. A summary of the final rulemaking follows:

CHAPTER 121, GENERAL PROVISIONS

§ 121.1. Definitions

The amendments to § 121.1 (relating to definitions) add the following definitions: "alternative method," "as applied," "as supplied," "basecoat," "CPDS--certified product data sheet," "coating," "coating solids (or solids)," "compliant coating," "continuous coater," "conventional air spray," "cosmetic specialty coatings," "enamel," "equivalent method," "MSDS--material safety data sheet," "nonpermanent final finish," "normally closed container," "pollution prevention," "sealer," "stain," "strippable spray booth coating," "thinner," "touch-up and repair," "washoff operations," "waterborne coating," "wood furniture," "wood furniture component," and "wood furniture manufacturing operations."

The final rulemaking deletes the following terms in § 121.1: "clear sealers," "opaque ground coats and enamels," "other coatings," "semitransparent spray stains," and "semitransparent wiping and glazing stains." The terms were deleted to eliminate inconsistencies between definitions for existing surface coating requirements in § 129.52 and the newly adopted presumptive RACT requirements for wood furniture manufacturing operations in §§ 129.101-129.107. The proposed definition for the term "operating permit value" has also been deleted from the final rulemaking because it was recently codified in § 121.1 as part of the final-form regulations for aerospace manufacturing and rework facilities. (25 *Pa. B.* 1879, April 10, 1999).

In addition, the second paragraph in the "CPDS-Certified Product Data Sheet" definition has been deleted because it is not consistent with EPA's CTG and model rule.

Information pertaining to the emission of hazardous air pollutants can be obtained under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for wood furniture manufacturing operations in 40 CFR Part 63, Subpart JJ (relating to National Emission Standards for Wood Furniture Manufacturing Operations). The “CPDS-Certified Product Data Sheet” definition applies solely to the wood furniture manufacturing requirements in §§129.101-129.107.

These amendments also include revisions to the following existing definitions:

“Miscellaneous metal parts and products” – The amendments delete the phrase “but not limited to” and expand the *Standard Industrial Classification Codes* from 3300 through 3900 to 3999.

“Process” - The revisions to the term “process” correct a grammatical error and include “operations” necessary for the completion and transformation of the materials to produce a physical or chemical change.

“Surface coating process” – The changes to the definition specify that the surface coating process is the application and solidification of a coating onto or into a substrate as the substrate proceeds through the equipment and activities of the manufacturing process.

“Topcoat” – The amendments delete the existing definition of “topcoat” and define the term “topcoat” as the last film-building coating applied, in one or more layers, to wood furniture or a wood furniture component substrate in a surface coating process. The term does not include non-permanent final finishes.

“VOC - Volatile Organic Compound” - The revision to the “VOC” definition adds 40 CFR § 51.100, the Federal citation for VOCs determined by the Administrator of the EPA to have negligible photochemical reactivity.

“Washcoat” – The revisions delete “low solids” and include a solids content by weight of 12.0% or less in accordance with the “washcoat” definition in the CTG and model rule for wood furniture manufacturing operations.

In response to the suggestions of several commentators, clarifying changes were made to the following definitions:

“Coating” - Revisions to the “coating” definition specify that the term applies only to the requirements for wood furniture manufacturing operations in §§ 129.101 - 129.107. The term does not include adhesives.

“Coating solids or solids” - Changes to the “coating solids or solids” definition clarify that the definition only applies to the requirements in §§129.101-129.107. In addition, the term explicitly provides that when EPA’s Reference Method 24 is not used to determine solids content, the use of alternative methodology must be approved by the Administrator of the EPA.

“Continuous coater” – Amendments to the “continuous coater” definition delete the word “roll” and add “roller” for consistency with the “roller” coating definition in § 121.1.

“Dip coating” - The existing definition for “dip coating” has been revised to clarify that components or objects are immersed into the coating. Once dipped, the coating may be recycled to a reservoir.

“Enamel” - The “enamel” definition has been revised to clarify that a coating may be applied as a topcoat over the enamel.

“Stains” – Revisions to the “stain” definition clarify that term is defined for purposes of emissions averaging under the wood furniture manufacturing operations provisions in §§ 129.101-129.107.

“Topcoat” - The “topcoat” definition has been revised to clarify that a topcoat can be applied in several layers.

The following definitions were added to provide clarity to the final-form regulations:

“Adhesive”-A chemical substance that is applied for the purpose of bonding two surfaces together other than by chemical means. The term does not include coatings or finishing materials. This definition has been added because the revised coating definition explicitly states that the term “coating” does not include “adhesives.”

“Cosmetic specialty coatings” -Materials, including padding stains, shading stains, sap stains, spatter stains, fillers, waxes and inks applied to enhance wood finishes. The definition replaces the ambiguous term “other coatings” used in the existing surface coating provisions in § 129.52. Several commentators indicated that the term “other coatings” is confusing and not consistent with certain definitions in the presumptive RACT requirements.

CHAPTER 129. SOURCES OF VOCs

§ 129.52. Surface Coating Processes.

This final rulemaking includes the following amendments to this section:

§ 129.52(b)(1) - The amendments delete the existing regulatory language requiring adjustment to a standard solvent density and a solids basis. This adjustment is incorporated into revisions to Table I (relating to allowable content of VOCs in surface coatings by process).

§ 129.52(b)(1)(i) – The final changes add an equation for calculating the VOC content of the as applied coating on the basis of weight of VOC per volume of coating solids to be used in evaluating compliance for Table I, Categories 1 through 10. This clarification is in response to the RBI report on Regulations Which Lack Clarity. The existing equation in § 129.52(b)(2)

is not expressed in a format to allow for easy calculation of compliance.

§ 129.52(b)(1)(ii) - This amendment adds an equation for calculating the VOC content of dip coatings on a 30-day rolling average basis. The methodology for calculating the VOC content includes the gallons of thinner added to the coating in the process over any consecutive 30-day period to replace evaporated solvent.

§ 129.52(b)(1)(iii) - This amendment adds a simple equation for calculating the VOC content on the basis of weight of VOC per weight of coating solids. This methodology is used to evaluate compliance with Table I, Category 11 and with Table IV in §§ 129.101-129.107.

§ 129.52(b)(1)(iv)-The equation proposed for dip-coating operations has been deleted because it would have established more stringent requirements than the CTG for wood furniture manufacturing operations. Paragraph (v) was renumbered.

§ 129.52(b)(2) - The existing equation for calculating the percentage of emission reductions needed for compliance purposes when using control equipment is deleted. A new equation is added for calculating the overall efficiency of the control system based on the new units of measurement in Table I (weight of VOC per volume of solids and weight of VOC per weight of solids).

§ 129.52(c) - This amendment deletes the existing list of required records and adds recordkeeping requirements that are appropriate to the required analytical methods used to evaluate compliance as specified in the Source Testing Manual. This change also emphasizes the need for facilities to keep records of volume solids content for coatings used in Table I, Categories 1 through 10.

§ 129.52(e) – Revisions to this subsection clarify that records pertaining to the volume percent of solids are required only for surface coating processes listed in Table I, Categories 1 through 10.

§ 129.52(f) – Amendments to this subsection add terms that are consistent with the “roller coating,” and “cosmetic specialty coatings” definitions specified in §121.1 (relating to definitions).

§ 129.52(g) – This amendment moves the existing requirement for maintaining records for 2 years from the existing § 129.52(c) to this subsection to emphasize and add clarity to the amendments.

§ 129.52(h) - This amendment adds an exemption from VOC emission limitations for small quantities of coatings used for determination of product quality and commercial acceptance, touch-up and repair and other small quantity coatings. Subsection (h) requires the facility owner or operator to submit a written request to the Department to exempt quantities of coating which do not exceed 50 gallons a year for a single coating and a total of 200 gallons each year for all coatings combined for the facility. The Department’s written approval must be obtained prior to use of the exempted coatings.

WOOD FURNITURE MANUFACTURING OPERATIONS

§ 129.101. General provisions and applicability.

The requirements in § 129.101 (relating to general provisions and applicability) state that §§ 129.101-129.107 apply to each wood furniture manufacturing facility located in a county included in the northeast ozone transport region or in a county classified as severe, serious, moderate or marginal nonattainment for ozone and which emits or has the potential to emit 25 tons or more per year of VOCs from wood furniture manufacturing operations. The most stringent VOC emission limitation will apply to a wood furniture manufacturing operation that meets the applicability threshold limits for both § 129.52 (relating to surface coating processes) and §§ 129.101-129.107.

Subsection (b) requires the owners or operators of wood furniture manufacturing operations to comply with the requirements of §§ 129.101-129.107 within one year from the effective date of the final rulemaking if the actual emissions or potential to emit (PTE) for VOCs are 25 tons per year or greater. The compliance deadline for the presumptive RACT requirements does not apply to wood furniture manufacturing operations that have obtained EPA-approved SIP revisions for case-by-case RACT prior to the effective date of this final rulemaking. Major VOC-emitting wood furniture manufacturing operations will no longer be subject to the RACT requirements in §§ 129.91-129.95 (relating to stationary sources of NO_x and VOCs) because the EPA has now issued a CTG for the control of VOC emissions from wood furniture manufacturing operations (61 *FR* 25223, May 20, 1996). Therefore, the Department will withdraw any case-by-case RACT determination that has not been EPA-approved as a SIP revision by the effective date of this rulemaking.

Subsection (c) provides a compliance deadline for the owner or operator of an existing wood furniture manufacturing facility which increases its actual emissions or PTE to 25 tons per year or more of VOCs from wood furniture manufacturing operations after the effective date of these amendments. Within one year after increasing actual VOC emissions or the PTE to 25 tons per year or more, the owner or operator of the affected facility must comply with §§ 129.101-129.107. The newly adopted presumptive RACT requirements for wood manufacturing operations do not apply to facilities with EPA-approved SIP revisions for case-by-case RACT prior to the effective date of this final rulemaking.

Subsection (d) establishes a compliance date for existing facilities that install new sources. New sources installed at an existing facility must meet the VOC emission standards upon installation of the sources.

Subsection (e) describes the interface between the existing surface coating requirements in § 129.52 and the newly adopted presumptive RACT requirements. If actual or potential VOC emissions would subject the facility to both § 129.52 and §§ 129.101-129.107, the owner or operator would only have to demonstrate compliance with the most stringent emissions limitation.

The general provisions also exempt from the VOC emission limits in § 129.102, Table

IV, a small quantity of coatings used exclusively for determination of product quality and commercial acceptance, touch-up and repair and other small quantity coatings if the Department provides prior written approval for the use of the coatings. Subsection (f) requires the owner or operator to submit a written request to the Department for exempt quantities of coating which do not exceed 50 gallons per year for a single coating and a total of 200 gallons per year for all coatings combined for the facility. The Department's written approval must be obtained prior to use of the coatings.

§ 129.102. Emission standards.

This section lists in Table IV (relating to emission limits of VOC for wood furniture manufacturing sealers, topcoats and strippable spray booth coatings, as applied) the emission limits of VOCs for wood furniture manufacturing sealers, topcoats and strippable spray booth coatings that are actually used for coating the substrate. The owner or operator of a facility may demonstrate compliance with the VOC emission standards by applying either waterborne topcoats or a combination of sealers, topcoats and strippable spray booth coatings with a VOC content equal to or less than the standards specified in Table IV. Facility owners or operators may demonstrate compliance with the VOC emission standards by using an emissions averaging approach which meets the requirements of § 129.107 (relating to emissions averaging) or by using a control system that will achieve a reduction in emissions equivalent to 0.8 lb VOC/lb solids for topcoats or 1.8 lb VOC/lb solids for topcoats and 1.9 lb VOC/lb solids for sealers. An allowable emissions limit equal to 2.3 lb VOC/lb solids, as applied, is provided for the use of acid-cured alkyd amino sealers. When using acid-cured alkyd amino conversion varnish topcoats, the VOC emissions limit is 2.0 lb VOC/lb solids, as applied. The emission limits for sealers and topcoats are equivalent to coatings with solids contents of approximately 32 to 35 % by weight.

§ 129.103. Work Practice Standards.

This section establishes work practice standards to reduce VOC emissions from wood furniture manufacturing operations. The work practice standards include the development of a work practice implementation plan and operator training program, leak inspection and maintenance plan, and a cleaning and washoff solvent accounting system. Subsection (a) requires the owner or operator of a facility subject to the requirements in §§ 129.101-129.107 to develop and maintain a work practice implementation plan no later than 60 days after the compliance date. The work practice implementation plan must include an operator training program, leak inspection and maintenance plan, a cleaning and washoff solvent accounting system, spray booth cleaning requirements, storage requirements, and application equipment requirements. The owner or operator of the facility must comply with each provision of the work practice implementation plan. If the Department determines that the work practice implementation plan does not adequately address the criteria specified in §§ 129.103(b)-(j), the owner or operator must revise the plan.

Subsection (b) describes the elements of the operator training program. A copy of the required operator training program must be maintained with the work practice implementation plan. All new and existing personnel, including contract personnel, who are involved in

coating, cleaning or washoff operations or implementation of the requirements in §§ 129.101-129.107 must complete the operator training program. The amendments require any new personnel hired after date of publication of this final rulemaking to be trained upon hiring. The operator training program must be completed by existing employees within 6 months of the effective date of the final rule. For facilities which increase VOC emissions to the applicability threshold limits, new employees shall be trained upon hiring and existing employees shall be trained no later than six months before the compliance date.

Subsection (c) contains the requirements for the leak inspection and maintenance plan. The plan must address the required monthly visual inspections of equipment used to transfer or apply coatings or solvents and procedures for documenting the date and results of each inspection and any repairs that were made. The plan must also include procedures to address the detection and repair of leaks. At a minimum, an attempt to repair the leaks must begin no later than 5 working days after the leak is detected. Final repairs to the system must be made within 15 working days, unless new equipment is being installed to repair the system. When installing new equipment, repairs must be completed no later than 3 months from the date a leak is detected.

Subsection (d) describes the requirements pertaining to the cleaning and washoff solvent accounting system. A solvent accounting form must be developed for recording information pertaining to the solvents used in cleaning and washoff operations. The information recorded on the form shall include the following:

- (1) The total number of pieces washed off each month and the reason for the washoff.
- (2) The names and total quantity of each solvent used each month for cleaning and washoff activities.
- (3) The name and total quantity of each solvent evaporated to the atmosphere each month from cleaning and washoff activities.

The cleaning and washoff solvent accounting information should be maintained onsite. However, the Department may request information pertaining to the cleaning and washoff solvent accounting system for compliance or enforcement purposes.

Subsection (e) provides work practices for spray booth cleaning. The owners or operators may not use compounds containing more than 8.0 percent by weight of VOC for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, or metal filters unless the spray booth is being refurbished. When a spray booth is being refurbished, no more than one gallon of organic solvent can be used to prepare the booth prior to applying the new strippable booth coating. The strippable booth coating shall contain no more than 0.8 lb VOC/lb solids (0.8 kg VOC/kg solids), as applied.

Section 129.103 also includes work practice standards for the storage of coating, cleaning and washoff materials, application equipment requirements, line cleaning, spray gun cleaning and washoff operations. Subsection (g) describes the work practice standards for

application equipment and limits the use of conventional air spray guns. The use of conventional air spray guns is prohibited if the conventional air spray guns are not used in accordance with the procedures in § 129.103 (g)(1)-(6). Conventional air spray guns may be used: to apply coatings that have a VOC content less than or equal to 1.0 lb VOC/lb solids (1.0 kg VOC/kg solids), as applied; if the spray is automated; or if the emissions from the surface coating process are directed to a VOC control system. The use of conventional air spray guns for touch-up and repair coatings is allowed if the coatings are applied after completion of the wood furniture manufacturing operation. The coatings may also be applied after the stain and before any other type of coating is applied and the coatings are applied from a container that has a volume of no more than 2.0 gallons. These amendments also prohibit the use of conventional air spray guns if the cumulative total coating is more than 5.0 percent of the total gallons of coating used during a semiannual reporting period.

§ 129.104. Compliance procedures and monitoring requirements.

This section describes compliance procedures and monitoring requirements used to demonstrate compliance with the presumptive RACT regulations for wood furniture manufacturing operations. The owner or operator of a facility subject to the emission standards of § 129.102 must demonstrate compliance through the use of compliant coatings, use of add-on control devices, an emissions-averaging approach or a combination of these compliance methods. When a combination of compliance options is selected, the owner or operator must demonstrate compliance with each applicable compliance technique. When compliant coatings are being used, the owner or operator must maintain certified product data sheets for each coating. If a solvent or other VOC is added to the coating before application, the facility must account for the dilution and maintain documentation showing the VOC content of the coating as applied, in lb VOC/lb solids.

Initial Compliance

Subsection (a) describes the methods and procedures an owner or operator of the facility must use to demonstrate compliance with the VOC emission standards in §129.102 (relating to emission standards). The owner or operator must maintain a CPDS for each coating that is subject to the VOC emission limits and records which demonstrate that each coating as applied meets the applicable VOC emission limit. When a control system is used to meet the VOC emission limits, the overall control efficiency must be calculated using the equations in §129.104(a)(2).

Subsection (b) describes the requirements for initial compliance. The owners or operators of a facility demonstrating compliance through the use of compliant coatings must submit an initial compliance status report in accordance with § 129.106(a). Subsection (b)(1) requires the initial compliance report to specify whether compliant sealers, topcoats and strippable spray booth coatings are being used by the facility.

Subsection (b)(2) explains the initial compliance requirements for facilities using a continuous coater to apply sealers, topcoats or both. To demonstrate initial compliance, the owners or operators are required to submit an initial compliance status report. The report must

specify either that compliant sealers, topcoats or both, as determined by the VOC content of the coating in the reservoir and as calculated from records, are being used or that compliant sealers, topcoats or both, as determined by the VOC content of the coating in the reservoir are being used and the viscosity of the coating in the reservoir is being monitored. The data provided must show a correlation between the viscosity and the VOC content of the coating in the reservoir.

Subsection (b)(3) requires users of control systems to include the operating parameter values to be monitored for the capture device and the results of the initial performance testing in the initial compliance report. The procedures and test methods must meet the requirements specified in Chapter 139 (relating to sampling and testing).

Continuous Compliance Demonstrations

The owners or operators of wood furniture manufacturing operations subject to the presumptive RACT requirements in this final rulemaking must submit a compliance certification with the semiannual report required under § 129.106(b). Facilities using compliant coatings to demonstrate compliance must maintain records that prove that the coatings used in their operations are compliant. The compliance certification must also state that compliant sealers, topcoats or both and strippable spray booth coatings have been used each day in the semiannual reporting period.

Subsection (c)(2) explains the continuous compliance requirements for facilities using continuous coaters to apply sealers or topcoats. The compliance certification submitted to the Department must include a statement that compliant sealers, topcoats or both have been used each day in the semiannual reporting period. If the facility has not been in continuous compliance, the certification must include the days of noncompliance and the reasons for noncompliance.

Subsection (c)(3) specifies the requirements for facilities that demonstrate compliance by using a control system. Owners or operators of affected sources are required to install, calibrate, maintain and operate monitoring equipment that has been approved, in writing, by the Department. If the facility is using a control system that is not described in § 129.104, approval by the Department must be obtained prior to using the control system. The request for approval of the control system includes the following: a description of the system, test data verifying the performance of the system, the appropriate operating parameter values that will be monitored and the monitoring device that will be used to demonstrate continuous compliance with the standard.

The compliance certification for the control system must specify that the control system has not been operated at a daily average value greater than or less than (as appropriate) the operating parameter value for each day in the semiannual reporting period. If the operating parameter value is not in compliance, the certification must identify the days of noncompliance and the reasons for noncompliance.

Each owner or operator of a facility that is subject to the work practice standards of

§ 129.103 shall demonstrate continuous compliance by following the work practice implementation plan. The compliance certification must state that the work practice implementation plan is being followed, or should otherwise identify the periods of noncompliance with the work practice standards and the reasons for noncompliance.

Subsection (d) requires compliance certifications to be signed by a responsible official of the company. In addition to the certification requirements of this section, the certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate and complete.

§ 129.105. Recordkeeping requirements.

This section establishes recordkeeping requirements for wood furniture manufacturing operations. The owners or operators of affected facilities must keep records adequate to demonstrate compliance with the requirements in §§ 129.101-129.107. The records must be maintained for at least 5 years. This section also includes specific recordkeeping requirements for facilities using compliant coatings, continuous coaters, control systems or a combination of these methods. The recordkeeping requirements of subsections (a), (b) and (c) include the following:

- (1) A certified product data sheet for each coating and strippable spray booth coating.
- (2) Records of the VOC content of the as applied coating, lb VOC/lb solids (kg VOC/kg solids), of each coating and strippable spray booth coating and copies of data sheets documenting how the as applied values were determined. Owners or operators applying sealers, topcoats or both, using continuous coaters must also keep records of solvent and coating additions to the continuous coater reservoir and viscosity measurements.

Subsection (d) prescribes additional recordkeeping requirements for control systems which include copies of the calculations to support the equivalency of using a control system and records of the daily average value of each continuously monitored parameter for each operating day. If all recorded values for a monitored parameter are within the range established during the initial performance test, the owner or operator may record that all values were within the range rather than calculating and recording an average for that day.

Subsection (e) specifies that a copy of the work practice implementation plan and all records associated with meeting the requirements of that plan must be maintained onsite. The records kept for the work implementation plan must also satisfy the recordkeeping requirements for applicable provisions of the work practice implementation plan including the operator training program, the leak inspection and maintenance plan, the cleaning and washoff solvent accounting system and restrictions on the use of conventional air spray guns.

§ 129.106. Reporting requirements.

This section establishes reporting requirements for wood furniture manufacturing operations subject to the presumptive RACT requirements of §§ 129.101-129.107. Subsection

(a) requires owners or operators of affected facilities to submit an initial compliance report to the Department no later than 60 days after the compliance date. The report must include the items required by § 129.104(b).

Subsection (b) requires the submittal of semiannual reports certifying compliance for the previous 6 months of wood furniture manufacturing operations. The first report should be submitted to the Department within 30 calendar days after the end of the first 6-month period following the compliance date. Subsequent reports must be submitted within 30 calendar days after the end of each 6-month period following the first report.

§ 129.107. Special provisions for facilities using an emissions averaging approach.

This section allows the owners or operators of manufacturing operations to comply with the VOC emission limitations by averaging emissions across wood furniture finishing lines. The wood furniture manufacturing operation may use stains, basecoats, washcoats, sealers and topcoats in any emissions averaging program that meets the equivalency requirements in § 129.51(a). The facility may use other coatings for its emissions averaging program if the averaging approach meets the equivalency requirements. The emissions averaging program submitted to the Department for approval prior to use must include a summary of the reasons why the facility would like to comply with the emission limitations through an equivalency determination using emissions averaging procedures. The program summary must also include an explanation of how averaging can be used to meet the emission limitations and a description of the types of coatings that will be included in the facility's emissions averaging program. An additional 10 % reduction in emissions is required under subsection (b) for affected facilities using the emissions averaging approach.

Subsection (c) requires the owner or operator of the facility to submit a written summary to the Department explaining why the emissions averaging program should be used to demonstrate compliance. The written summary must also explain how emissions averaging can be used to meet the emissions limitations.

Subsection (d) requires the owner or operator of the facility to describe the types of coatings that will be included in the emissions averaging program. Coatings used in an averaging program may include basecoats, sealers, stains, topcoats and washcoats. Coatings in the emissions averaging program cannot be applied using a continuous coater unless the amount of coating used is determined on a daily basis.

Subsection (e) specifies that the baseline for each coating included in the emissions averaging program shall be the lower of the actual or allowable emission rate as of the effective date of these regulations. The baseline emission rate for the facility can not be higher than what was presumed in the 1990 emissions inventory for the facility unless the Department has accounted for the increase in emissions as growth.

Subsection (f) provides that the quantification procedures used in the emissions averaging program must demonstrate that the facility's actual emissions are less than the allowable emissions.

Subsection (g) requires that the emissions averaging program submitted to the Department include monitoring, recordkeeping and reporting procedures that will allow Department inspectors or owners or operators of facilities using an averaging approach to determine the facility's compliance status on a daily basis. The monitoring, recordkeeping and reporting procedures must also include methods for determining required data when monitoring, recordkeeping and reporting violations result in missing, inadequate or erroneous monitoring and recordkeeping.

Chapter 139. Sampling and Testing

Subchapter A. Sampling and Testing Methods and Procedures

§ 139.4. References.

The revisions to this section reflect name changes for the Department and the Bureau of Air Quality.

§ 139.14. Emissions of VOCs.

The amendments to this section require that the test methods and procedures for the content of total volatiles, solids and exempt solvents be equivalent to those listed in § 139.4(1) and (5).

Changes from the Proposed Rulemaking

In addition to the definitional changes that were summarized earlier in this section, changes from the proposed rulemaking are summarized as follows:

§ 129.91. Control of Major Sources of NO_x and VOCs.

Amendments to § 129.91 address questions raised by several commentators and the Independent Regulatory Review Commission regarding the relationship between existing case-by-case RACT requirements and the newly adopted presumptive RACT requirements for wood furniture manufacturing operations. The amendments to § 129.91(a) state that the section does not apply to the owner or operator of a major VOC emitting facility for which requirements have been established in § 129.52, Table I, Category 11 (relating to surface coating processes) and §§ 129.101-129.107. However, the newly adopted presumptive RACT requirements would not apply to a facility for which EPA approves a case-by-case RACT determination as a SIP revision prior to the effective date of the final-form regulations. In such instances, the wood furniture manufacturing operation would continue to be subject to § 129.52 and the existing RACT requirements in §§ 129.91 through 129.95. (See 24 *Pa. B.* 467, January 15, 1994).

§ 129.101(b) and (c).

The phrase, “in addition to the requirements in § 129.52 (relating to surface coating processes)” has been deleted because an owner or operator only has to demonstrate compliance with the most stringent provision when subject to § 129.52 and the presumptive RACT provisions in §§ 129.101-129.107.

§ 129.101(e).

Revisions to subsection (e) streamline the existing surface coating requirements in § 129.52 and the newly adopted presumptive RACT requirements. If a facility’s actual or potential VOC emissions require compliance with both § 129.52 and §§ 129.101-129.107, the owner or operator would only have to demonstrate compliance with the most stringent emissions limitation.

§ 129.101(f).

Changes to this section will require an owner or operator seeking an exemption for small quantities of coating to satisfy the requirements of subsections (f)(1) and (2). The proposed rulemaking erroneously allowed the owner or operator to qualify for the exemption by complying with either of the requirements specified in this subsection.

§ 129.102(1).

Revisions to this paragraph clarify that an owner or operator may either apply waterborne topcoats or a combination of sealers and topcoats and strippable spray booth coatings with VOC contents equal to or less than the standards specified in § 129.102, Table IV.

In addition, the word “vinyl” has been deleted from Table IV. This revision allows owners or operators to use lower VOC content solvents in “acid-cured alkyd amino systems.”

§ 129.102(3).

Several commentators pointed out that the proposed emission standards in § 129.102(3) were more stringent than EPA’s CTG and model rule. The 1.8 lb VOC/lb solids emission limit for topcoats was inadvertently omitted during the proposed rulemaking. Final changes to this paragraph provide that the control system must achieve a reduction in emissions equivalent to either 0.8 lb VOC/lb solids for topcoats or 1.8 lb VOC/lb solids for topcoats and 1.9 lb VOC/lb solids for sealers.

§ 129.103(a).

EPA’s CTG and model rule for wood furniture manufacturing operations require affected sources to develop and maintain a work implementation plan within 60 days of the

compliance date. Revisions to subsection (a) establish the same timeframe for wood furniture manufacturers to develop and maintain a work implementation plan.

§ 129.103(b)(1) and (2).

Final changes to (b)(1) require new employees to be trained upon hiring. For wood furniture manufacturing operations that subsequently increase VOC emissions to the applicability thresholds specified in § 129.101(c), new employees must also be trained upon hiring.

Revisions to (b)(2) clarify that the training schedule for existing employees will vary for existing facilities currently subject to the final-form regulations and facilities that subsequently increase VOC emissions to the applicability thresholds. Owners or operators of wood furniture manufacturing operations meeting the requirements of § 129.101(b) must train existing employees within 6 months of the effective date of the final-form regulations. If a facility increases its VOC emissions to the applicability thresholds, existing employees must be trained at least 6 months before the compliance date.

§ 129.103(d).

Revisions to this section clarify that the purpose of the cleaning and washoff accounting system is to track the type and quantity of coatings used in wood furniture manufacturing operations. The owner or operator must record the name and total quantity of each solvent evaporated to the atmosphere each month from cleaning and washoff activities. This information should remain onsite unless requested by the Department for compliance or enforcement purposes. In accordance with the confidentiality provision in Section 13.2 of the Air Pollution Control Act, an owner or operator of the facility may show cause as to why such information should be treated as confidential information.

§ 129.103(g)(6).

The final amendments to this paragraph specify that the Department will provide written notice to an owner or operator concerning a claim of technical or economic infeasibility for spray technology other than a conventional air spray gun. When an owner or operator claims technical or economic infeasibility, the conventional air spray gun can not be used until the Department notifies the applicant in writing.

§ 129.103(j)(1).

Final changes to subsection (j) add the terms, “normally closed container” and “washoff operations,” to be consistent with the terms defined in § 121.1 (relating to definitions).

§ 129.104.

Minor revisions to this section correct typographical errors. In addition, parameter “E”

for the equation used to calculate the overall control efficiency for a control system has been revised to indicate that the applicable emission limit is specified in Table IV.

§ 129.105.

Minor changes to this section include corrections needed to address final rulemaking changes pertaining to the initial status report and compliance certifications required under §129.106.

§ 129.106(a).

The proposed initial notification requirement in subsection (a) has been deleted. Information concerning facilities that are subject to the presumptive RACT requirements in §§ 129.101-129.107 can be obtained through the Department's plan approval and operating permit programs. Certain MACT-affected facilities have already provided the initial notification required under 40 CFR Part 63, Subpart JJ.

§ 129.107(d)(2) and (3).

Final changes to subsection (d)(2) specify that the owner or operator of the facility may choose the coatings used in an emissions averaging program. A reference to the owner or operator of the facility has also been added in subsection (d)(3).

F. Summary of Comments and Responses on the Proposed Rulemaking

The Board held four public hearings on the proposed rulemaking published in the *Pennsylvania Bulletin* on March 6, 1999 (29 Pa. B. 1299). The hearings were held at Department Regional Offices in the following areas of the Commonwealth: Pittsburgh on April 6, 1999; Harrisburg on April 7, 1999; Conshohocken on April 8, 1999; and Williamsport on April 9, 1999. Five interested persons provided testimony during the public hearings. The public comment period closed on May 10, 1999.

During the 66-day public comment period, written comments on the proposal were submitted to the Board by the Independent Regulatory Review Commission (IRRC) and 13 commentators including EPA and wood furniture manufacturers. All comments submitted to the Board were duly considered and, where appropriate, the final rulemaking was revised to reflect the commentators' suggestions or objections on the proposal. Testimony and written comments received during the public comment period are summarized in the Comment and Response Document that is available electronically at www.dep.state.pa.us. A listing of significant comments concerning the proposal is set forth below:

1. Four commentators expressed support for the proposed rulemaking.

Comment: In general, my company supports the proposed rulemaking. We support the use of the presumptive RACT requirements for wood furniture manufacturing operations in Pennsylvania.

Response: The Department appreciates industry support of the proposal published at 29 *Pa. B.* 1299 (March 6, 1999).

2. Several commentators offered suggestions and objections to certain definitions proposed in § 121.1.

Comment: The definition for the term “Certified Product Data Sheet” (CPDS) states that the CPDS should include the content of hazardous air pollutants (HAPs). This information should not be required on a data sheet used to determine compliance with a volatile organic compound (VOC) rule.

Response: The “CPDS” definition has been revised to only require information pertaining to the volatile organic compound (VOC) content. Information pertaining to HAPs will be obtained from the CPDS submitted under Section 112 of the Clean Air Act and 40 CFR Part 63, Subpart JJ (relating to National Emission Standards for Wood Furniture Manufacturing Operations.). The “CPDS-Certified Product Data Sheet” definition applies solely to the wood furniture manufacturing requirements in §§129.101-129.107.

Comment: We suggest that the Department clearly indicate that adhesives are not included in the definition of “coatings.” As currently written, this could be open to question.

Response: The “coating” definition has been revised to explicitly state that the term does not include “adhesives” and that the term “coating” applies only to the requirements for wood furniture manufacturing operations in §§ 129.101-129.107. Certain adhesives will continue to be regulated under § 129.52, Table I, for processes in Categories 1 – 10. However, adhesives are not regulated for VOC content under § 129.52, Table I, Category 11 and §§ 129.101-129.107.

Comment: The definition of the term “coating solids or solids” states that the “Solids content is determined using data from the Environmental Protection Agency (EPA) Reference Method 24 or an alternative method.” It is not clear if EPA or the DEP must approve the “alternative method.”

Response: The proposed definition of the term “alternative method” states that EPA must approve any method of sampling and analyzing for an air pollutant that is not a reference or equivalent method. To address the commentator’s concern, the revised definition indicates that EPA approval is required in order to use an alternative method. The term “coating solids or solids” applies solely to the provisions in §§ 129.101-129.107.

Comment: The presumptive RACT standard contains no definition for the term “enamel.” The proposed “enamel” definition was taken from the EPA’s maximum achievable control technology (MACT) standard. Retaining the definition of “enamel” from the MACT standard will only cause confusion in the field.

Response: The commentators are mistaken. EPA’s “Model Rule for Wood Furniture

Finishing and Cleaning Operations” contains the same definition of “enamel” as is included in Pennsylvania’s RBI #4 proposal. Therefore, the “enamel” definition in the proposed rule will be retained in the final rulemaking. See pages B-5 and 6, Section B.3 (relating to definitions and nomenclature) of EPA’s model rule.

Comment: We suggest that the term “enamel” be included in the definition of “topcoat” for purposes of the presumptive RACT regulation.

Response: The suggested revisions are not consistent with the presumptive RACT requirements for state programs and will not be included in the final-form regulations. EPA’s model rule provides separate definitions for the terms “enamel” and “topcoat.” As proposed, the definitions for the terms “enamel” and “topcoat” are consistent with EPA’s CTG and model rule.

Comment: The definition of the term “spent solvent” provided in § 129.103(d)(3) is not clear and should be modified. The existing definition would almost always yield a result of zero.

Response: The proposed “spent solvent” provision is based on EPA’s model rule. Changes to spent solvent requirements in § 129.103(d)(3) clarify that the owner/operator of the facility must document the quantity of each organic solvent evaporated to the atmosphere from cleaning and washoff activities.

Comment: The definition of “stain” conflicts with the definition of “other coatings” in § 121.1. “Other coatings” includes some of the same coatings as “stain.” This creates confusion.

Response: The term “other coatings” has been changed to “cosmetic specialty coating” in the final-form regulations. The “stain” definition now applies solely to the presumptive RACT requirements in §§ 129.101-129.107.”

3. One commentator indicated that this rulemaking deletes the requirement to adjust VOC content by using a standard solvent density of 7.36 pounds per gallon.

Comment: The deletion of the existing requirement to adjust the VOC content by using a standard solvent density of 7.36 pounds per gallon is a good idea since this concept never had good technical merit as to yield correct values or relationships for compliance.

Response: This rulemaking only deletes the expressed reference to the 7.36 pounds per gallon adjustment. This factor is reflected in the conversion of the VOC content limits in § 129.52, Table I from the gallons of coating less water basis to the solids basis. The conversion was made using the 7.36 lb VOC/gal VOC standard solvent density factor.

4. EPA indicated that the proposal did not contain a specific reference to transfer efficiencies.

Comment: The regulation makes reference in § 129.52(b)(1) to the limits being “VOC content of each coating as applied is equal to or less than the standard specified in Table I.” There is no reference to transfer efficiencies even though the provision infers that you must account for transfer efficiencies.

Response: The term “as applied” means “[t]he VOC and solids content of a coating that is actually used to coat the substrate. The term includes the contribution of materials used for in-house dilution of the coating.” Pursuant to the “as applied” definition, the owner or operator must account for the VOC and solids content of the coating after mixing but prior to actual application for compliance purposes. Therefore, the transfer efficiency is not taken into account for “as applied” coatings.

5. EPA pointed out that the proposal does not state whether compliance is to be determined on an instantaneous or 30-day rolling average basis for processes covered under equations in §§129.52(b)(1)(i) and 129.52(b)(1)(iii).

Comment: Since §§ 129.52(b)(1)(i) and 129.52(b)(1)(iii) do not apply to dip coating processes, it is not clear whether the 30-day rolling average applies or if compliance is to be determined on an instantaneous basis.

Response: Evaluation of a coating for compliance with §§ 129.52(b)(1)(i) and (iii) must be determined on an instantaneous basis. The VOC content is determined either by review of coating records or by sampling the as applied coating and analyzing the sample by EPA Reference Method 24 and other methods listed in the Department’s Source Testing Manual. If the company’s reported VOC content and the Department’s laboratory analysis for a particular coating differ, the Department’s laboratory analysis controls if it shows that the coating exceeds the allowable VOC emissions limit.

6. Several commentators and the Independent Regulatory Review Commission raised questions concerning the impact that the presumptive RACT requirements for wood furniture manufacturing facilities would have on the existing case-by-case RACT provisions in § 129.91 through § 129.95. A few of the comments and responses pertaining to case-by-case RACT determinations are set forth below.

Comment: Neither the Preamble nor the regulations address the issue of the existence of state-only case-by-case RACT permits. These permits are being issued prior to case-by-case RACT plans being approved by EPA as SIP revisions. The Preamble should address how these state-only case-by-case RACT permits can be rescinded. Otherwise it appears that a manufacturer could be subject to both presumptive RACT and case-by-case RACT. This is clearly not the intent of the Department or the EPA.

Response: Wood furniture manufacturers that currently do not have case-by-case RACT determinations approved by EPA as SIP revisions must continue to comply with the case-by-case RACT terms and conditions specified in federally enforceable permits. If the Board adopts the presumptive RACT requirements prior to a company receiving SIP-approval of its case-by-case RACT determination, the facility would then be subject to the state’s

presumptive RACT requirements. The SIP submittal would be withdrawn and the permit revised to reflect the newly adopted RACT requirements for wood furniture manufacturing operations. Following issuance of the revised permit, the case-by-case RACT requirements would no longer be applicable.

Comment: The proposed regulations are silent on how the Department's case-by-case RACT rules (§§ 129.91-129.95) will be affected by the adoption of presumptive RACT. Sections 129.91-129.95 should be amended to reflect the adoption of presumptive RACT, in place of case-by-case RACT, for those facilities subject to presumptive RACT.

Response: The final rulemaking adds language to § 129.91(a) to clarify that the existing RACT requirements do not apply to major VOC-emitting facilities for which requirements have been established in § 129.52 Table I, Category 11 and §§ 129.101-129.107. Consequently, the case-by-case RACT provisions would no longer apply to wood furniture manufacturing facilities subject to regulation under the presumptive RACT requirements in §§ 129.101-129.107 if their case-by-case determinations have not been SIP-approved.

Comment: Section 129.101 should be amended to reflect the adoption of presumptive RACT, in place of case-by-case RACT, for those facilities subject to presumptive RACT.

Response: The final rulemaking amends §129.91 to address this concern. As proposed, subsections (b) and (c) in §129.101 contain an exception for facilities that have RACT determinations approved by EPA as a SIP revision prior to the effective date of the final-form regulations for surface coating processes.

7. One commentator suggested that the amount of coatings exempted for determination of product quality and commercial acceptance is insufficient for large operations.

Comment: The proposed exemption from VOC content limitations for small quantities of coatings used for determination of product quality and commercial acceptance is excellent in principle. However, the proposed exemptions of 50 gallons for one coating and 200 gallons for all coatings combined at the facility per year are not realistic numbers for large surface coating operations.

Response: The small quantity exemption amounts of 50 gallons for one coating and 200 gallons for all coatings combined will be retained in the final rulemaking to ensure that there will be no adverse air quality impacts from these activities.

8. The Board specifically requested comments concerning the need for owners or operators of wood furniture manufacturing facilities with actual emissions or the potential to emit 25 tons per year or more of VOCs to comply with both the surface coating requirements in § 129.52 and the proposed presumptive RACT requirements in §§ 129.101-129.107.

Comment: Relative to the first question posed by the Department in Section J (relating to public comments) of the Preamble, wood furniture manufacturers subject to the proposed § 129.101-129.107 should have to comply only with the proposed presumptive RACT

requirements. Manufacturers should no longer be subject to the requirements in § 129.52.

Response: The existing wood cabinet and furniture finishing provisions in § 129.52 were adopted by the Board on May 7, 1988 and will continue to apply to all affected wood furniture manufacturing operations. Generally, facilities which are currently regulated under § 129.52 have demonstrated compliance with the applicable VOC content limits and should therefore have no trouble continuing to comply with the applicable requirements of § 129.52. Any facility that is subject to both § 129.52 and §§ 129.101-129.107 need only demonstrate compliance with the more stringent emissions limitation or other applicable requirement as specified in § 129.101(e).

Comment: To require wood furniture and cabinet manufacturers to adhere to two different and often conflicting sets of surface coating regulations is inconsistent with Executive Order 1996-1 and the Department's Regulatory Basics Initiative. Additionally, requiring compliance with both the presumptive RACT requirements and § 129.52 places extra restrictions on manufacturing processes (above the federal CTG requirements), is difficult to understand, largely redundant, and requires excessive recordkeeping and reporting.

Response: The surface coating processes proposed rulemaking is consistent with the principles of Executive Order 1996-1 which provides, in relevant part, that "if federal regulations exist, regulations of the Commonwealth may not exceed federal standards unless justified by a compelling and articulable Pennsylvania interest or required by State law." The existing provisions in § 129.52 were adopted to "help reduce emissions of VOC which is necessary to meet the ambient air quality standards..." See 18 *Pa. B.* 2098 (May 7, 1988). The entire Commonwealth is included in the Ozone Transport Region established under Section 184 of the Clean Air Act. See 42 U.S.C. §7511(c). Therefore, retention of § 129.52 is justified by a compelling Pennsylvania interest, achieving and maintaining the NAAQS for ozone.

In addition, retention of the wood cabinet and furniture finishing requirements of § 129.52 is not contrary to applicable requirements of Pennsylvania's Air Pollution Control Act (APCA). Section 4.2(f) provides that the Board may retain existing requirements in § 129.52 if the regulations were adopted prior to July 9, 1992. See 35 P.S. § 4004.2(f). The existing wood cabinet and furniture finishing requirements in § 129.52 were adopted by the Board on May 7, 1988. These provisions are currently being met by most facilities. Whenever a surface coating process is subject to the presumptive RACT requirements and the requirements of § 129.52, the facility must demonstrate compliance with the more stringent requirement.

If the requirements in § 129.52 were deleted for larger wood furniture manufacturing operations, facilities with actual VOC emissions greater than 2.7 tons per year, but potential emissions of VOCs less than 25 tons per year, would no longer be regulated. Consequently, those facilities could then legally use non-complying materials and application equipment, increase VOC emissions and counteract the Department's efforts to comply with the federal National Ambient Air Quality Standard (NAAQS) for ozone.

Comment: Every major component of § 129.52 is also included in §§ 129.101-129.107. They both have material VOC content limits, application equipment requirements, and

recordkeeping and reporting obligations. It is our position that at the time a facility reaches the potential to emit of VOCs of 25 tons per year or more, only the more stringent presumptive RACT requirements of §§ 129.101-129.107 should apply.

Response: The proposed language in § 129.101(e) stated that “when subject to § 129.52 and this section and §§ 129.102-129.107, the more stringent limitation applies to the wood furniture manufacturing operation.” In the final rulemaking, subsection (e) has been revised to indicate that facilities subject to § 129.52 and §§ 129.101-129.107 need only demonstrate compliance with the most stringent requirement. Pursuant to Section 184 of the Clean Air Act, 42 U.S. C. § 7511(c), Pennsylvania is included in the Ozone Transport Region established by operation of law. Therefore, retention of the existing requirements in § 129.52 is justified by a compelling Pennsylvania interest, achieving and maintaining the NAAQS for ozone.

In some circumstances, § 129.52 requirements will apply instead of the newly adopted presumptive RACT requirements. Whenever a facility’s actual emissions exceed 2.7 tons per year and its potential VOC emissions reach 25 tons per year or more, the facility owner/operator need only demonstrate compliance with the more stringent provision. Title V permits issued to major wood furniture manufacturing operations would contain streamlined permit conditions. The most stringent applicable requirement would be included in the permit. In such instances, the streamlined permit condition would assure compliance with the less stringent provision. Consequently, the permit would not contain duplicative permit conditions.

Comment: We suggest that the term “vinyl” be deleted from the coating systems listed in § 129.102(1), Table IV, Category 3. Acid cured sealers and topcoats are primarily based on what is known as alkyd amino technology. Resins such as vinyl or nitrocellulose are sometimes added to the alkyd amino base to help dry the surface of these otherwise slow systems. Specifying the term “vinyl” severely limits the resin choices for modifying the alkyd amino base. The solvents needed to dissolve the vinyl in the coating system may be more active, higher VOC or HAPs containing solvents. Modifying resins other than vinyls can and are used to produce acid-cured alkyd amino systems at equal or lower pounds of VOC per pound of coating solids than are produced with vinyls.

Response: The Department concurs with this recommendation and has deleted the term “vinyl” from the acid-cured alkyd amino systems category specified in § 129.102(1), Table IV, Category 3.

Comment: In the discussion about § 129.103(d), it would be helpful to explain that the sensitive data generated by the cleaning and washoff solvent accounting system is not required to be submitted to the Department in any type of report. There is concern in the regulated community that this data could be made publicly available.

Response: The Department has revised the “cleaning and washoff solvent accounting system” requirements in the final rulemaking. Section 13.2 of the Air Pollution Control Act authorizes the Department to treat certain information obtained by the Department as confidential information if a person shows cause as to why the records, report, data or information should be considered confidential by the Department. Under no circumstances,

however, is emissions data kept confidential. See 35 P.S. § 4013.2. Although data obtained from records for the cleaning and washoff solvent accounting system would not routinely be submitted to the Department, this data could be obtained during inspections or for enforcement purposes. If the “sensitive data” obtained by the Department is emissions data, it cannot be considered confidential information.

9. The Board specifically requested comments on whether the reporting requirements in 40 CFR §§ 63.7-63.10 should be adopted. These general reporting provisions specify time frames for reporting performance test results, monitoring parameter values and excess performance test results. Under EPA’s model rule for wood furniture manufacturing operations, the general MACT reporting requirements are an optional State presumptive RACT program component.

Comment: Relative to question two posed in paragraph J of the Preamble of the proposed rulemaking, we endorse the adoption of the MACT reporting requirements that were developed during the EPA Regulatory Negotiation.

Response: The adoption of the MACT reporting requirements for major wood furniture manufacturing operations reporting VOC emissions under the presumptive RACT rule would be duplicative if the facility is already subject to the MACT reporting requirements. When issuing Title V permits, all applicable reporting requirements will be streamlined and the most stringent requirement included as a permit condition. For example, if the MACT reporting requirements are more stringent than other applicable reporting provisions, the permit will contain the MACT reporting requirements and explicitly state that the streamlined permit condition assures compliance with other applicable reporting requirements.

G. Benefits and Costs

Executive Order 1996-1 requires a cost/benefit analysis of the final-form regulations.

Benefits

Compliance with these amendments will reduce VOC emissions to the atmosphere. Implementation of the work practice standards will reduce VOC emissions from cleaning operations. The restrictions on the use of conventional air spray guns will result in less overspraying and will, therefore, reduce the amount of solid waste and VOC emissions generated from overspraying. Emission reductions resulting from these regulations are also expected to reduce worker exposure to VOC emissions and other pollutants.

Compliance Costs

These amendments will affect approximately 450 surface coating facilities, including 80 wood furniture manufacturing facilities that are currently subject to recordkeeping and reporting requirements. Approximately 20 of the major wood furniture manufacturing operations that could be subject to these regulations have submitted case-by-case RACT

determinations to EPA for approval as SIP revisions.

The amendments to § 129.52 will result in estimated savings of \$5,625, 000 for approximately 450 affected facilities. These cost savings are based on a reduction of .25 FTE (full time equivalent) per facility per year in recordkeeping and reporting efforts, at an average salary of \$50,000, for a total of \$5,625,000 for the current fiscal year.

Compliance Assistance Plan

Compliance assistance will be provided to affected facilities that are engaged in surface coating processes or the manufacture of wood furniture or wood furniture components. The Department will utilize the Pennsylvania Small Business Assistance Program and its ongoing regional compliance assistance program to assist small businesses in understanding and complying with the regulations in Chapter 129.

Pollution Prevention

The work practice standards adopted for the wood furniture manufacturing industry will reduce VOC emissions from affected sources. The restrictions on the use of conventional air spray guns imposed by these final regulations will also reduce the amount of VOCs emitted and the amount of solid waste generated from wood finishing operations. In addition, the implementation of operator training programs will reduce emissions and prevent pollution from wood finishing, clean-up and washoff operations.

Paperwork Requirements

These amendments contain recordkeeping and reporting provisions needed to demonstrate compliance with the requirements for surface coating processes and wood furniture manufacturing requirements. The owner or operator of an affected facility that complies with the wood furniture manufacturing provisions in §§ 129.101-129.107 must prepare and maintain a work practice implementation plan including work practices for operator training, leak inspection and maintenance planning, and cleaning and washoff solvent accounting. The owners or operators of affected facilities must also prepare and maintain records of work practice plan activities, use of compliant coatings or an alternative methodology. The owners or operators must also validate and verify information used to demonstrate compliance and prepare and maintain compliance certification records.

Any wood furniture manufacturing facility complying with the case-by-case RACT determinations or the National Emission standards for Hazardous Air Pollutants (NESHAP) will have the same work practice standards and application equipment requirements. The Board expects that the majority of the remaining 60 wood furniture manufacturing facilities will be subject to the NESHAP for wood furniture manufacturing operations in 40 CFR Part 63 Subpart JJ (relating to National Emission Standards for Wood Furniture Manufacturing Operations). These facilities will already have developed and implemented the paperwork requirements associated with the work practice standards such as operator training, inspection and maintenance planning, cleaning and washoff solvent accounting prior to the effective date

of the final rulemaking.

H. Sunset Review

These regulations will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulations effectively fulfill the goals for which they were intended.

I. Regulatory Review

Under Section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), the Department submitted a copy of the proposed rulemaking, published at 29 *Pa. B.* 1299 (March 6, 1999), on February 17, 1999 to the Independent Regulatory Review Commission and to the Chairpersons of the Senate and House Environmental Resources and Energy Committees for review and comment. In compliance with Section 5(b.1) of the Regulatory Review Act, the Department also provided the Commission and the Committees with copies of the comments as well as other documentation.

In preparing the final-form regulations, the Department has considered all comments received from the Commission and the public. The Committees did not provide comments on the proposed rulemaking.

These final-form regulations were (deemed) approved by the House and Senate Committees on _____. The Commission met on _____ and approved the final-form regulations in accordance with Section 5(c) of the Regulatory Review Act.

J. Findings of the Board

The Board finds that:

(1) Public notice of proposed rulemaking was given under Sections 201 and 202 of the act of July 31, 1968 (P.L. 769, No. 240) (45 P. S. §§ 1201 and 1202) and regulations promulgated thereunder at 1 *Pa. Code* §§ 7.1 and 7.2.

(2) A public comment period and public hearings were provided as required by law and all comments were considered.

(3) These final-form regulations do not enlarge the purpose of the proposal published at 29 *Pa. B.* 1299 (March 6, 1999).

(4) These regulations are necessary and appropriate for administration and enforcement of the authorizing act identified in Section C of this Order.

(5) These final-form regulations are necessary to satisfy related Clean Air Act requirements as they specifically relate to the Commonwealth and are reasonably necessary to achieve and maintain the National Ambient Air Quality Standards.

K. Order of the Board

The Board, acting under the authorizing statutes, orders that:

(a) The regulations of the Department, 25 *Pa. Code* Chapters 121, 129, and 139 are amended by amending §§ 121.1, 129. 52, 129.91, 139.4 and 139.14 and by adding §§ 129.101-129.107 to read as set forth in Annex A with ellipses referring to the existing text of the regulations.

(b) The Chairperson of the Board shall submit this Order and Annex A to the Office of General Counsel and the Office of Attorney General for review and approval as to legality and form as required by law.

(c) The Chairperson of the Board shall submit this Order and Annex A to IRRC and the Senate and House Committees as required by the Regulatory Review Act.

(d) The Chairperson of the Board shall certify this Order and Annex A and deposit them with the Legislative Reference Bureau as required by law.

(e) This Order shall take effect immediately upon publication in the *Pennsylvania Bulletin*.

BY

James M. Seif
Chairman
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:

* * * * *

ADHESIVE - A CHEMICAL SUBSTANCE THAT IS APPLIED FOR THE PURPOSE OF BONDING TWO SURFACES TOGETHER OTHER THAN BY MECHANICAL MEANS. THE TERM DOES NOT INCLUDE COATINGS OR FINISHING MATERIALS.

* * * * *

ALTERNATIVE METHOD - A METHOD OF SAMPLING AND ANALYZING FOR AN AIR POLLUTANT THAT IS NOT A REFERENCE OR EQUIVALENT METHOD BUT HAS BEEN DEMONSTRATED TO THE SATISFACTION OF THE ADMINISTRATOR OF THE EPA TO, IN SPECIFIC CASES, PRODUCE RESULTS ADEQUATE FOR A DETERMINATION OF COMPLIANCE.

* * * * *

AS APPLIED - THE VOC AND SOLIDS CONTENT OF A COATING THAT IS ACTUALLY USED TO COAT THE SUBSTRATE. 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 AS SOLD AND DELIVERED TO THE END USER.

* * * * *

BASECOAT - A COAT OF COLORED MATERIAL, USUALLY OPAQUE, THAT IS ORDINARILY APPLIED BEFORE GRAINING INKS, GLAZING COATS OR OTHER OPAQUE COATINGS AND IS USUALLY COVERED WITH AN APPLICATION OF TOPCOAT FOR PROTECTION.

* * * * *

CPDS - CERTIFIED PRODUCT DATA SHEET-FOR PURPOSES OF WOOD FURNITURE MANUFACTURING OPERATIONS UNDER §§ 129.101-129.107, DOCUMENTATION FURNISHED BY A COATING SUPPLIER OR AN OUTSIDE LABORATORY FOR A COATING, STRIPPABLE SPRAY BOOTH COATING OR SOLVENT THAT PROVIDES[:]

[(i) THE HAZARDOUS AIR POLLUTANT (HAP) CONTENT BY PERCENT WEIGHT CALCULATED FROM DATA MEASURED USING THE EPA REFERENCE METHOD 311 OR AN EQUIVALENT OR ALTERNATIVE METHOD.]

[(ii)] THE VOC CONTENT AS POUNDS OF VOC PER POUND OF COATING SOLIDS CALCULATED FROM DATA MEASURED USING THE EPA REFERENCE METHOD 24 OR AN EQUIVALENT OR ALTERNATIVE METHOD. BATCH FORMULATION DATA MAY BE USED IF IT IS DEMONSTRATED TO THE SATISFACTION OF THE ADMINISTRATOR OF THE EPA THAT THE COATING DOES NOT RELEASE ADDITIONAL VOC AS REACTION BYPRODUCTS DURING THE CURE [(THAT IS, ALL OF THE VOC IS SOLVENT)]. THE VOC CONTENT STATED SHOULD REPRESENT THE MAXIMUM VOC EMISSION POTENTIAL OF THE COATING, STRIPPABLE SPRAY BOOTH COATING OR SOLVENT.

* * * * *

[*Clear sealers* - Liquids applied over stains, toners and other coatings to protect these coatings from marring during handling and to limit absorption of succeeding coatings.]

* * * * *

COATING - FOR PURPOSES OF WOOD FURNITURE MANUFACTURING

OPERATIONS UNDER §§ 129.101-129.107, A PROTECTIVE, DECORATIVE OR FUNCTIONAL MATERIAL APPLIED IN A THIN LAYER TO A SURFACE. THE TERM INCLUDES PAINTS, TOPCOATS, CLEAR COATS, VARNISHES, SEALERS, STAINS, WASHCOATS, BASECOATS, INKS AND TEMPORARY PROTECTIVE COATINGS. THE TERM DOES NOT INCLUDE ADHESIVES.

COATING SOLIDS OR SOLIDS - FOR PURPOSES OF WOOD FURNITURE MANUFACTURING UNDER §§ 129.101-129.107, THE PART OF THE COATING WHICH REMAINS AFTER THE COATING IS DRIED OR CURED. SOLIDS CONTENT IS DETERMINED USING DATA FROM THE EPA REFERENCE METHOD 24 OR AN ALTERNATIVE METHOD APPROVED BY THE ADMINISTRATOR OF THE EPA.

* * * * *

COMPLIANT COATING - A COATING THAT MEETS THE APPLICABLE EMISSION LIMITS SPECIFIED IN CHAPTER 129 (RELATING TO STANDARDS FOR SOURCES).

* * * * *

CONTINUOUS COATER - A SURFACE COATING PROCESS THAT CONTINUOUSLY APPLIES COATINGS ONTO PARTS MOVING ALONG A CONVEYOR. COATINGS THAT ARE NOT TRANSFERRED TO THE PART ARE RECYCLED TO A RESERVOIR. SEVERAL TYPES OF APPLICATION METHODS CAN BE USED WITH A CONTINUOUS COATER INCLUDING SPRAYING, CURTAIN COATING, [ROLL] ROLLER COATING, DIP COATING AND FLOW COATING.

* * * * *

CONVENTIONAL AIR SPRAY - A SPRAY COATING APPLICATION METHOD IN WHICH THE COATING IS ATOMIZED BY MIXING IT WITH COMPRESSED AIR AND APPLIED AT AN AIR PRESSURE GREATER THAN 10 POUNDS PER SQUARE INCH (GAUGE) AT THE POINT OF ATOMIZATION. THE TERM DOES NOT INCLUDE:

(i) AIRLESS AND AIR ASSISTED AIRLESS SPRAY TECHNOLOGIES.

(ii) ELECTROSTATIC SPRAY TECHNOLOGY.

* * * * *

COSMETIC SPECIALTY COATINGS - [FOR PURPOSES OF WOOD FURNITURE MANUFACTURING OPERATIONS, COATINGS OR STAINS] MATERIALS INCLUDING PADDING STAINS, SHADING STAINS, SAP STAINS, SPATTER STAINS, FILLERS, WAXES AND INKS APPLIED TO ENHANCE WOOD FINISHES.

* * * * *

Dip Coating – The application of a coating by [dipping] IMMERSING an object [into a tank and draining off excess] INTO THE coating.

* * * * *

ENAMEL – A COAT OF COLORED MATERIAL, USUALLY OPAQUE, THAT IS APPLIED AS A PROTECTIVE TOPCOAT OVER A BASECOAT, PRIMER OR PREVIOUSLY APPLIED ENAMEL COAT. [THE TERM INCLUDES A] ANOTHER COATING [THAT] MAY BE APPLIED AS A TOPCOAT OVER THE ENAMEL.

* * * * *

EQUIVALENT METHOD – A METHOD OF SAMPLING AND ANALYZING FOR AN AIR POLLUTANT THAT HAS BEEN DEMONSTRATED TO THE SATISFACTION OF THE ADMINISTRATOR OF THE EPA TO HAVE A CONSISTENT AND QUANTITATIVELY KNOWN RELATIONSHIP TO THE REFERENCE METHOD UNDER SPECIFIC CONDITIONS.

* * * * *

Final repair coat – Liquids applied to correct imperfections or damage to the topcoat.

* * * * *

MSDS – MATERIAL SAFETY DATA SHEET–THE DOCUMENTATION REQUIRED FOR HAZARDOUS CHEMICALS BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAZARD COMMUNICATION STANDARD (29 CFR PART 1910) (RELATING TO OCCUPATIONAL SAFETY AND HEALTH STANDARDS) FOR A SOLVENT, CLEANING MATERIAL, COATING OR OTHER MATERIAL THAT IDENTIFIES SELECT REPORTABLE HAZARDOUS INGREDIENTS OF THE MATERIAL, SAFETY AND HEALTH CONSIDERATIONS AND HANDLING PROCEDURES.

* * * * *

Miscellaneous metal parts and products – Items made of ferrous or nonferrous metals, including [, but not limited to,] large farm machinery, small farm machinery, small appliances, commercial and industrial machinery, fabricated metal products[,] and items listed under the Standard Industrial Classification [Code] CODES 3300 through [3900] 3999. The term does not include cans, coils, automobiles, light-duty trucks, metal furniture, magnet wire, large appliances, aerospace vehicles or components and automobile refinishing and customized top coating of automobiles and trucks, if production since January 1, 1987, has not exceeded 34 vehicles per day.

* * * * *

NONPERMANENT FINAL FINISH – A MATERIAL SUCH AS A WAX, POLISH, NONOXIDIZING OIL OR SIMILAR SUBSTANCE THAT MUST BE PERIODICALLY REAPPLIED TO A SUBSTRATE OVER ITS LIFETIME TO MAINTAIN OR RESTORE THE MATERIAL'S EFFECT.

* * * * *

NORMALLY CLOSED CONTAINER – A CONTAINER THAT IS CLOSED UNLESS AN OPERATOR IS ACTIVELY ENGAGED IN ACTIVITIES SUCH AS EMPTYING OR FILLING THE CONTAINER.

* * * * *

[Opaque ground coats and enamels – Colored, opaque, liquid materials applied to wood or wood composition substrates which completely hide the color of the substrate in a single coat.]

* * * * *

[OPERATING PARAMETER VALUE – A MINIMUM OR MAXIMUM VALUE ESTABLISHED FOR A CONTROL SYSTEM OR PROCESS PARAMETER THAT, IF ACHIEVED BY ITSELF OR IN COMBINATION WITH ONE OR MORE OTHER OPERATING PARAMETER VALUES, DETERMINES THAT AN OWNER OR OPERATOR HAS COMPLIED WITH AN APPLICABLE EMISSION LIMIT.]

* * * * *

[*Other coatings* – Cosmetic specialty finishes, including padding stains, shading, sap stains, spatter stains, fillers, waxes and inks applied to enhance wood finishes.]

* * * * *

POLLUTION PREVENTION – SOURCE REDUCTION AND OTHER PRACTICES THAT REDUCE OR ELIMINATE THE CREATION OF POLLUTANTS THROUGH CHANGES WITHIN THE PRODUCTION PROCESS, INCLUDING PROCESS MODIFICATIONS, FEEDSTOCK SUBSTITUTIONS, IMPROVEMENTS IN FEEDSTOCK PURITY, SHIPPING AND PACKING MODIFICATIONS, HOUSEKEEPING AND MANAGEMENT PRACTICES, INCREASES IN THE EFFICIENCY OF MACHINERY AND RECYCLING WITHIN A PROCESS. THE TERM DOES NOT INCLUDE OUT-OF-PROCESS RECYCLING, TREATMENT AND SAFE DISPOSAL.

* * * * *

Process – A method, reaction or operation in which materials are handled or whereby materials undergo physical change—that is, the size, shape, appearance, temperature, state or other physical property of the material is altered—or chemical change—that is, a substance with different chemical composition or properties [are] IS formed or created. The term includes all of the equipment, OPERATIONS and facilities necessary for the completion of the transformation of the materials to produce a physical or chemical change. There may be several processes in series or parallel necessary to the manufacture of a product.

* * * * *

SEALER – A COATING USED TO SEAL THE PORES OF A WOOD SUBSTRATE BEFORE ADDITIONAL COATINGS ARE APPLIED.

* * * * *

[Semitransparent spray stains – Colored liquids and toners applied to wood to change or to enhance the surface without concealing the surface, including, but not limited to, toners and nongrain-raising stains.

Semitransparent wiping and glazing stains – Colored liquids applied to wood to enhance the grain character and to partially fill the porous surface of the wood.]

* * * * *

STAIN - FOR PURPOSES OF WOOD FURNITURE MANUFACTURING OPERATIONS UNDER UNDER §§ 129.101-129.107, A COLOR COAT HAVING A SOLIDS CONTENT BY WEIGHT OF NO MORE THAN 8.0% THAT IS APPLIED IN SINGLE OR MULTIPLE COATS DIRECTLY TO THE SUBSTRATE. THE TERM INCLUDES NONGRAIN RAISING STAINS, EQUALIZER STAINS, SAP STAINS, BODY STAINS, NO-WIPE STAINS, PENETRATING STAINS AND TONERS.

* * * * *

STRIPPABLE SPRAY BOOTH COATING-

(i) A COATING THAT:

(A) IS APPLIED TO A SPRAY BOOTH WALL TO PROVIDE A PROTECTIVE FILM TO RECEIVE OVERSPRAY DURING A SURFACE COATING PROCESS INCLUDING WOOD FURNITURE MANUFACTURING OPERATIONS.

(B) IS SUBSEQUENTLY PEELED OFF AND DISPOSED.

(C) BY MEETING THE CONDITIONS OF CLAUSES (A) AND (B), REDUCES OR ELIMINATES THE NEED TO USE SOLVENTS TO CLEAN SPRAY BOOTH WALLS.

SUBSTRATE - THE SURFACE ONTO WHICH A COATING IS APPLIED OR INTO WHICH A COATING IS IMPREGNATED.

* * * * *

Surface coating process - The application and solidification of a coating ONTO OR INTO A SUBSTRATE AS THE SUBSTRATE PROCEEDS THROUGH THE EQUIPMENT AND ACTIVITIES OF THE MANUFACTURING PROCESS.

* * * * *

THINNER - A VOLATILE LIQUID THAT IS USED TO DILUTE COATINGS (TO REDUCE VISCOSITY, COLOR STRENGTH OR SOLIDS CONTENT OR TO MODIFY DRYING CONDITIONS). THE TERM INCLUDES DILUENT, MAKEUP SOLVENT OR REDUCER.

* * * * *

Topcoat – [A clear liquid which provides the final protective and aesthetic properties to wood finishes] THE LAST FILM-BUILDING COATING THAT IS APPLIED, IN ONE OR MORE LAYERS, TO WOOD FURNITURE OR A WOOD FURNITURE COMPONENT SUBSTRATE IN A SURFACE COATING PROCESS. THE TERM DOES NOT INCLUDE NONPERMANENT FINAL FINISHES.

* * * * *

TOUCH-UP AND REPAIR – THE APPLICATION OF COATINGS TO COVER MINOR FINISHING IMPERFECTIONS.

* * * * *

VOC–Volatile Organic Compound – An organic compound which participates in atmospheric photochemical reactions; that is, an organic compound other than those which the Administrator of the EPA designates IN 40 CFR 51.100 (RELATING TO DEFINITIONS) as having negligible photochemical reactivity.

* * * * *

[Wash coat]WASHCOAT – [Low solids, clear] CLEAR LIQUIDS HAVING A SOLIDS CONTENT BY WEIGHT OF 12% OR LESS, applied over [semitransparent] stains and toners to protect the color coats and to set the fibers for subsequent sanding or to separate spray stains from wiping stains to enhance color depth.

WASHOFF OPERATIONS – OPERATIONS IN WHICH SOLVENT IS USED TO REMOVE COATING FROM A SUBSTRATE.

* * * * *

WATERBORNE COATING – A COATING THAT CONTAINS MORE THAN 5% WATER BY WEIGHT IN ITS VOLATILE FRACTION.

* * * * *

Wood [cabinet and furniture finishing] FURNITURE – [The application of liquids to

products] A PRODUCT MADE OF WOOD, A WOOD PRODUCT SUCH AS RATTAN OR WICKER OR AN ENGINEERED WOOD PRODUCT SUCH AS PARTICLEBOARD THAT IS manufactured under the following[:] *Standard Industrial Classification Codes*: 2434 (Wood kitchen cabinets), 2511 (Wood household furniture, except upholstered), 2512 (Wood household furniture, upholstered), 2517 (Wood television, radio, phonograph, and sewing machine cabinets), 2519 (HOUSEHOLD FURNITURE, NOT ELSEWHERE CLASSIFIED), 2521 (Wood office furniture), 2531 (Public building and related furniture) [and], 2541 (WOOD OFFICE AND STORE FIXTURES, PARTITIONS, SHELVING, AND LOCKERS), 2599 (Furniture and fixtures, not elsewhere classified) OR 5712 (FURNITURE STORES).

WOOD FURNITURE COMPONENT - A PART THAT IS USED IN THE MANUFACTURE OF WOOD FURNITURE. THE TERM INCLUDES DRAWER SIDES, CABINET DOORS, SEAT CUSHIONS AND LAMINATED TOPS.

WOOD FURNITURE MANUFACTURING OPERATIONS - THE COATING, CLEANING AND WASHOFF OPERATIONS ASSOCIATED WITH THE PRODUCTION OF WOOD FURNITURE OR WOOD FURNITURE COMPONENTS.

* * * * *

CHAPTER 129. STANDARDS FOR SOURCES

SOURCES OF VOCs

§ 129.52. Surface coating processes.

(a) This section applies to [all] A surface coating [processes] PROCESS CATEGORY, regardless of the size of the facility, which [emit] EMITS or [have] HAS emitted VOCs into the outdoor atmosphere in quantities greater than 3 pounds (1.4 kilograms) per hour, 15 pounds (7 kilograms) per day or 2.7 TONS (2,455 kilograms) [tons] per year during any calendar year since January 1, 1987.

(b) A person may not cause or permit the emission into the outdoor atmosphere of VOCs from a surface coating process CATEGORY listed in Table I, unless one of the following limitations is met:

(1) The [weight of VOCs per gallon of coating (minus water)] VOC CONTENT OF EACH AS APPLIED COATING [AS APPLIED] is equal to or less than the [level] STANDARD specified in Table I [after adjustment to a standard solvent density of 7.36 pounds per gallon and to a solids basis].

(i) THE VOC CONTENT OF THE AS APPLIED COATING, EXPRESSED IN UNITS OF WEIGHT OF VOC PER VOLUME OF COATING SOLIDS, SHALL BE CALCULATED AS FOLLOWS:

$$\text{VOC} = (W_o)(D_c)/V_n$$

WHERE:

VOC = VOC CONTENT IN LB VOC/GAL OF COATING SOLIDS

W_o = WEIGHT PERCENT OF VOC (W_v - W_w - W_{ex})

W_v = WEIGHT PERCENT OF TOTAL VOLATILES (100%-WEIGHT PERCENT SOLIDS)

W_w = WEIGHT PERCENT OF WATER

W_{ex} = WEIGHT PERCENT OF EXEMPT SOLVENT(S)

D_c = DENSITY OF COATING, LB/GAL, AT 25°C

V_n = VOLUME PERCENT OF SOLIDS OF THE [LIQUID] AS APPLIED COATING

(ii) THE VOC CONTENT OF A DIP COATING, EXPRESSED IN UNITS OF WEIGHT OF VOC PER VOLUME OF COATING SOLIDS, SHALL BE [DETERMINED] CALCULATED ON A 30-DAY ROLLING AVERAGE BASIS USING THE FOLLOWING EQUATION:

$$\text{VOC}_A = \frac{\sum_i (W_{oi} \times D_{ci} \times Q_i) + \sum_j (W_{oj} \times D_{dj} \times Q_j)}{\sum_i (V_{ni} \times Q_i)}$$

WHERE:

VOC_A = VOC CONTENT IN LB VOC/GAL OF COATING SOLIDS FOR A [GIVEN] DIP COATING, CALCULATED ON A 30-DAY ROLLING AVERAGE BASIS

W_{oi} = PERCENT VOC BY WEIGHT OF EACH AS SUPPLIED COATING (i) ADDED TO THE DIP [TANK] COATING PROCESS, EXPRESSED AS A DECIMAL FRACTION

(THAT IS 55% = 0.55)

D_{ci} = DENSITY OF EACH AS SUPPLIED COATING (i) ADDED TO THE DIP [TANK] COATING PROCESS, IN POUNDS PER GALLON

Q_i = QUANTITY OF EACH AS SUPPLIED COATING (i) ADDED TO THE DIP [TANK] COATING PROCESS, IN GALLONS

V_{ni} = PERCENT SOLIDS BY VOLUME OF EACH AS SUPPLIED COATING (i) ADDED TO THE DIP [TANK] COATING PROCESS, EXPRESSED AS A DECIMAL FRACTION

W_{oj} = PERCENT VOC BY WEIGHT OF EACH [DILUENT] THINNER (J) ADDED TO THE DIP [TANK] COATING PROCESS, EXPRESSED AS A DECIMAL FRACTION

D_{dj} = DENSITY OF EACH [DILUENT] THINNER (J) ADDED TO THE DIP [TANK] COATING PROCESS, IN POUNDS PER GALLON

Q_j = QUANTITY OF EACH [DILUENT] THINNER (J) ADDED TO THE DIP [TANK] COATING PROCESS, IN GALLONS

(iii) THE VOC CONTENT OF THE AS APPLIED COATING, EXPRESSED IN UNITS OF WEIGHT OF VOC PER WEIGHT OF COATING SOLIDS, SHALL BE CALCULATED AS FOLLOWS:

$$\underline{VOC_B = (W_o)/(W_n)}$$

Where:

VOC_B = VOC CONTENT IN LB VOC/LB OF COATING SOLIDS

W_o = WEIGHT PERCENT OF VOC ($W_v - W_w - W_{ex}$)

W_v = WEIGHT PERCENT OF TOTAL VOLATILES (100%-WEIGHT PERCENT SOLIDS)

W_w = WEIGHT PERCENT OF WATER

W_{ex} = WEIGHT PERCENT OF EXEMPT SOLVENTS

W_n = WEIGHT PERCENT OF SOLIDS OF THE [LIQUID] AS APPLIED COATING

[(iv) THE VOC CONTENT OF A WOOD FURNITURE DIP COATING, EXPRESSED IN UNITS OF WEIGHT OF VOC PER WEIGHT OF COATING SOLIDS, SHALL BE DETERMINED ON A 30-DAY ROLLING AVERAGE BASIS USING THE FOLLOWING EQUATION:

$$\text{VOC}_c = \frac{\sum_i (W_{oi} \times D_{ci} \times Q_i) + \sum_j (W_{oj} \times D_{dj} \times Q_j)}{\sum_i (W_{ni} \times D_{ci} \times Q_i)}$$

WHERE:

VOC_c = VOC CONTENT IN LB VOC/LB OF COATING SOLIDS FOR A GIVEN WOOD FURNITURE DIP COATING ON A 30-DAY ROLLING AVERAGE BASIS

W_{oi} = PERCENT VOC BY WEIGHT, EXPRESSED AS A DECIMAL FRACTION (THAT IS, 55% = 0.55), OF EACH COATING (i) ADDED TO THE DIP TANK

D_{ci} = DENSITY OF EACH COATING (i) ADDED TO THE DIP TANK, IN POUNDS PER GALLON

Q_i = QUANTITY OF EACH COATING (i) ADDED TO THE DIP TANK, IN GALLONS

W_{ni} = PERCENT SOLIDS BY WEIGHT OF EACH COATING (i) ADDED TO THE DIP TANK, EXPRESSED AS A DECIMAL FRACTION

W_{oj} = PERCENT VOC BY WEIGHT OF EACH DILUENT (J) ADDED TO DIP TANK, EXPRESSED AS A DECIMAL FRACTION

D_{dj} = DENSITY OF EACH DILUENT (J) ADDED TO THE DIP TANK, IN POUNDS PER GALLON

Q_j = QUANTITY OF EACH DILUENT (J) ADDED TO THE DIP TANK, IN GALLONS

[(v)](iv) SAMPLING AND TESTING SHALL BE DONE IN ACCORDANCE WITH THE PROCEDURES AND TEST METHODS SPECIFIED IN CHAPTER 139 (RELATING TO SAMPLING AND TESTING).

(2) The overall weight of VOCs emitted to the atmosphere is reduced through the use of vapor recovery or incineration or another method which is acceptable under § 129.51(a) (relating to general). [by a specific percentage if the percentage is determined as follows:

$$\left[\frac{X}{Y(1 - Z_1)} \right] \\ \left[\% \text{ reduction} = 100 \left[1 - \frac{Y}{X(1 - Z_2)} \right] \right]$$

where X = pounds of VOC per gallon of coating (minus water) for present coating
Y = pounds of VOC per gallon of coating (minus water) found in Table I
Z₁ = density of VOC in pounds per gallon for present coating
Z₂ = standard solvent density (7.36 pounds per gallon)]

THE OVERALL EFFICIENCY OF A CONTROL SYSTEM, AS DETERMINED BY THE TEST METHODS AND PROCEDURES SPECIFIED IN CHAPTER 139, SHALL BE NO LESS THAN THE EQUIVALENT OVERALL EFFICIENCY CALCULATED BY THE FOLLOWING EQUATION:

$$O = (1 - E/V) \times 100$$

WHERE:

V = THE VOC CONTENT OF THE AS APPLIED COATING [AS APPLIED], IN LB VOC/GAL OF COATING SOLIDS OR LB VOC/LB OF COATING SOLIDS.

E = TABLE I LIMIT IN LB VOC/GAL OF COATING SOLIDS OR LB VOC/LB OF COATING SOLIDS.

O = OVERALL CONTROL EFFICIENCY.

(c) A facility, regardless of the facility's annual emission rate, which contains surface coating processes shall maintain records sufficient to demonstrate compliance with this section. At a minimum, a facility shall maintain daily records of [the] [gallons of coating used, the coating density before and after addition of diluents, the gallons of diluents used and the density of the diluents, the gallons of water contained in the coating and the weight percent of the organic volatiles in the coating. The records shall be maintained for 2 years and shall be submitted to the Department on a schedule reasonably prescribed by the Department.] [FOLLOWING]:

(1) THE FOLLOWING PARAMETERS FOR EACH COATING, THINNER AND OTHER COMPONENT AS SUPPLIED:

(i) THE COATING, THINNER OR COMPONENT NAME AND IDENTIFICATION NUMBER.

(ii) THE [GALLONS] VOLUME USED.

(iii) THE MIX RATIO.

(iv) THE DENSITY OR SPECIFIC GRAVITY.

(v) THE WEIGHT PERCENT OF TOTAL VOLATILES, WATER, SOLIDS AND EXEMPT SOLVENTS.

(vi) THE VOLUME PERCENT OF SOLIDS FOR TABLE I SURFACE COATING PROCESS CATEGORIES 1 THROUGH 10.

(2) THE VOC CONTENT OF EACH COATING, THINNER AND OTHER COMPONENT AS SUPPLIED.

(3) THE VOC CONTENT OF EACH AS APPLIED COATING [AS APPLIED].

* * * * *

(f) A person may not cause or permit the emission into the outdoor atmosphere of VOCs from the application of wood [cabinet and] furniture coatings unless the coatings are applied

using electrostatic, airless, curtain coating, [roll] **ROLLER** coating, hand roller, hand brush, flow coating, dip coating or high volume-low pressure application equipment. Air atomized sprays may be used to apply [other] **COSMETIC SPECIALTY** coatings if the volume of the [other] **COSMETIC SPECIALTY** coatings is less than 5% by volume of the total coating used at the facility or to apply final repair coatings.

(g) THE RECORDS SHALL BE MAINTAINED FOR 2 YEARS AND SHALL BE SUBMITTED TO THE DEPARTMENT ON A SCHEDULE REASONABLY PRESCRIBED BY THE DEPARTMENT.

(h) THE VOC STANDARDS IN TABLE I DO NOT APPLY TO A COATING USED EXCLUSIVELY FOR DETERMINING PRODUCT QUALITY AND COMMERCIAL ACCEPTANCE, TOUCH-UP AND REPAIR AND OTHER SMALL QUANTITY COATINGS IF THE COATING MEETS THE FOLLOWING CRITERIA:

(1) THE QUANTITY OF COATING USED DOES NOT EXCEED 50 GALLONS PER YEAR FOR A SINGLE COATING AND A TOTAL OF 200 GALLONS PER YEAR FOR ALL COATINGS COMBINED FOR THE FACILITY.

(2) THE OWNER OR OPERATOR OF THE FACILITY REQUESTS, IN WRITING, AND THE DEPARTMENT APPROVES, IN WRITING, THE EXEMPTION PRIOR TO USE OF THE COATING.

TABLE I

**[Allowable Content] EMISSION LIMITS of VOCs in Surface
Coatings by Process CATEGORY**

[Allowable VOC content]

Weight of VOC per Volume of Coating [(minus water)] SOLIDS

(Editor's Note: The following Table I replaces the existing Table I which appears at 25 Pa. Code pages 129-14 and 129-15, serial pages (199518) and (248195) and is printed in regular type to improve readability.)

Surface Coating Process Category	lbs VOC per gal coating solids	kg VOC per liter coating solids
1. Can coating		
(a) sheet basecoat	4.62	0.55
(b) can exterior	4.62	0.55
(c) interior body spray	10.05	1.20
(d) two piece can end exterior	10.05	1.20
(e) side-seam spray	21.92	2.63
(f) end sealing compound	7.32	0.88
2. Coil coating	4.02	0.48
3. Fabric coating	4.84	0.58
4. Vinyl coating	7.69	0.92
5. Paper coating	4.84	0.58
6. Automobile and light duty truck coating		
(a) prime coat	2.60	0.31
(b) top coat	4.62	0.55
(c) repair	14.14	1.69
7. Metal furniture coating	5.06	0.61
8. Magnet wire coating	2.16	0.26
9. Large appliance coating	4.62	0.55
Categories 1 through 9 were adopted on April 17, 1979		
10. Miscellaneous metal parts & products		
(a) top coats for locomotives and heavy-duty trucks	6.67	0.80
(b) hopper car and tank car interiors	6.67	0.80
(c) pail and drum interiors	10.34	1.24
(d) clear coatings	10.34	1.24
(e) air-dried coatings	6.67	0.80
(f) extreme performance coatings	6.67	0.80
(g) all other coatings	5.06	0.61
Category 10 was adopted on April 21, 1981		

WEIGHT OF VOC PER WEIGHT OF COATING SOLIDS

	lbs VOC per lb coating solids	kg VOC per kg coating solids
11. Wood [cabinet and furniture finishing]		
<u>FURNITURE MANUFACTURING OPERATIONS</u>		
(a) [clear topcoat] <u>TOPCOATS AND ENAMELS</u>	3.0	3.0
(b) washcoat	14.3	14.3
(c) final repair coat	3.3	3.3
(d) [opaque ground coats and enamels]	2.2	2.2
<u>BASECOATS</u>		
(e) [all other] <u>COSMETIC SPECIALTY</u> coatings	14.3	14.3
(f) [clear] sealers	3.9	3.9
Category 11 was adopted on May 7, 1988		

* * * * *

§ 129.91. Control of major sources of NO_x and VOCs.

(a) This section applies to both the owner and the operator of a major NO_x emitting facility or major VOC emitting facility for which no RACT requirement has been established in §§ 129.51, 129.52, 129.54-129.72, 129.81 and 129.82 (relating to sources of VOCs; and mobile sources). This section [applies] **DOES NOT APPLY** to the owner and operator of a major VOC emitting facility for which requirements have been established in § 129.52 Table I (11) (relating to surface coating processes) **AND §§ 129.101-129.107.**

* * * * *

(*Editor's Note:* The following sections are new and have been printed in regular type to enhance readability.)

WOOD FURNITURE MANUFACTURING OPERATIONS

§ 129.101. General provisions and applicability.

(a) Beginning on _____ (*Editor's Note:* The blank refers to the effective date of this final rulemaking), this section and §§ 129.102-129.107 (relating to wood furniture manufacturing operations) apply to each wood furniture manufacturing facility located in a county included in the northeast ozone transport region or in a county designated as severe,

serious, moderate or marginal ozone nonattainment that emits or has the potential to emit 25 tons or more per year of VOCs from wood furniture manufacturing operations.

(b) [In addition to the requirements in § 129.52 (relating to surface coating processes), [t]The owner or operator of an existing wood furniture manufacturing facility subject to subsection (a) shall comply **WITH** this section and §§ 129.102–129.107 by _____. (Editor's Note: The blank refers to a date 1 year from the effective date of adoption of this proposal), except for those facilities which have RACT determinations approved by the EPA as revisions to the SIP prior to _____. (Editor's Note: The blank refers to the effective date of this final rulemaking.)

(c) [In addition to the requirements in § 129.52 (relating to surface coating processes), the owner or operator of a] An existing wood furniture manufacturing facility that [emits or] increases its **ACTUAL EMISSIONS OR** potential to emit to 25 tons per year or more of VOCs from wood furniture manufacturing operations shall comply with this section and §§ 129.102–129.107 within 1 year after becoming subject to subsection (a), except for those facilities which have RACT determinations approved by EPA **AS** revisions to the SIP prior to _____. (Editor's Note: The blank refers to the effective date of this final rulemaking.)

(d) At a minimum, a new source installed at an existing facility that is subject to the requirements of subsection (a) shall comply with the emission standards of § 129.102 (relating to emission standards) upon installation of the new source.

(e) THE OWNER OR OPERATOR OF A WOOD FURNITURE MANUFACTURING FACILITY SUBJECT TO THIS SECTION, § 129.52 AND §§ 129.102-129.107 SHALL COMPLY WITH THE MORE STRINGENT EMISSIONS LIMITATION OR APPLICABLE REQUIREMENT FOR WOOD FURNITURE MANUFACTURING OPERATIONS IN § 129.52 OR §§ 129.101-129.107. [When subject to § 129.52 and this section and §§ 129.102–129.107, the more stringent limitation applies to the wood furniture manufacturing operation.]

(f) The VOC standards in § 129.102 Table IV do not apply to a coating used exclusively for determining product quality and commercial acceptance, touch-up and repair and other small quantity coatings [when one of the following applies] **IF THE COATING MEETS THE FOLLOWING CRITERIA :**

(1) The quantity of coating used does not exceed 50 gallons per year for a single coating and a total of 200 gallons per year for all coatings combined for the facility.

(2) The owner or operator of the facility requests, in writing, and the Department approves, in writing, the exemption prior to use of the coating.

§ 129.102. Emission standards.

An owner or operator of a facility subject to this section, §§ 129.101 and 129.103–129.107 shall limit VOC emissions from wood furniture manufacturing operations by **[using one of the following methods]**:

(1) **[Using] APPLYING EITHER WATERBORNE TOPCOATS OR A COMBINATION OF sealers[,] AND topcoats and strippable spray booth coatings with a VOC content equal to or less than the [standard] STANDARDS specified in Table IV:**

TABLE IV
Emission Limits of VOC for Wood Furniture
Manufacturing Sealers, Topcoats and Strippable
Spray Booth Coatings **[a]As** Applied, in Pounds of VOC
Per Pound of Coating Solids (kg VOC/kg of Coating
[s]Solids), by Category

(1) Waterborne Topcoats	0.8
(2) High Solids Coating Systems	
Sealer	1.9
Topcoat	1.8
(3) Acid-cured alkyd amino [vinyl] systems	
(i) Acid-cured alkyd amino [vinyl] sealer	2.3
Acid-cured alkyd amino conversion varnish topcoat	2.0
(ii) Other Sealer	1.9
Acid-cured alkyd amino conversion varnish topcoat	2.0
(iii) Acid-cured alkyd amino [vinyl] sealer	2.3
Other Topcoat	1.8
(4) Waterborne [spray] strippable <u>SPRAY</u> booth coating	0.8

(2) Using an emissions averaging program which meets the requirements in § 129.107 (relating to special provisions for facilities using an emissions averaging approach).

(3) Using a control system that will achieve a reduction in emissions equivalent to 0.8 lb VOC/lb solids for topcoats **OR 1.8 LBS VOC/LB SOLIDS FOR TOPCOATS** and 1.9 lbs VOC/lb solids for sealers.

(4) Using a combination of the methods specified in paragraphs (1)–(3).

§ 129.103. Work practice standards.

(a) *Work practice implementation plan.* [By _____ (Editor's Note: the blank refers to a date 60 days after the effective date of this final rulemaking)] **WITHIN 60 DAYS AFTER THE COMPLIANCE DATE SPECIFIED IN § 129.101(b) OR § 129.101(c),** an owner or operator of a facility subject to the requirements in this section, §§ 129.101, 129.102 and 129.104–129.107 shall:

(1) Prepare and maintain a written work practice implementation plan that defines work practices for each wood furniture manufacturing operation and addresses the provisions in subsections (b)–(j). The owner or operator of the facility shall comply with the provisions of the work practice implementation plan.

(2) Make available the written work practice implementation plan for inspection by the Department upon request. If the Department determines that the work practice implementation plan does not adequately address the criteria specified in subsections (b)–(j), the Department may require that the facility owner or operator modify the plan.

(b) *Operator training program.* New and existing personnel, including contract personnel, who are involved in coating, cleaning or washoff operations or implementation of the requirements of this section, §§ 129.101, 129.102 and 129.104–129.107 shall complete an operator training program.

(1) **FOR A FACILITY SUBJECT TO THE REQUIREMENTS OF § 129.101(b), [N]new personnel hired after _____ (Editor's Note: The blank refers to the effective date of this final rulemaking) shall be trained upon hiring. FOR A FACILITY SUBJECT TO THE REQUIREMENTS OF §129.101(c), NEW PERSONNEL SHALL BE TRAINED UPON HIRING.**

(2) **FOR A FACILITY SUBJECT TO THE REQUIREMENTS OF § 129.101(b), [E]existing personnel hired before _____ (Editor's Note: The blank refers to the effective date of this final rulemaking) shall be trained by _____. (Editor's Note: The blank refers to a date 6 months after the effective date of this final rulemaking.) FOR A FACILITY SUBJECT TO THE REQUIREMENTS OF §129.101(c), EXISTING PERSONNEL SHALL BE TRAINED AT LEAST 6 MONTHS BEFORE THE COMPLIANCE DATE.**

(3) Personnel shall be given refresher training annually.

(4) A copy of the written operator training program shall be maintained with the work practice implementation plan. The operator training program shall include the following:

- (i) A list of all current personnel by name and job description that are required to be trained.
- (ii) An outline of the subjects to be covered in the initial and annual refresher training sessions for each position or group of personnel.
- (iii) Lesson plans for courses to be given at the initial and annual refresher training sessions that include, at a minimum, appropriate application techniques, appropriate cleaning and washoff procedures, appropriate equipment setup and adjustment to minimize coating usage and overspray and appropriate management of cleanup wastes.
- (iv) A description of the methods to be used at the completion of the initial or annual refresher training sessions to demonstrate and document successful completion.
- (v) A record of the date each employee is trained.

(c) *Leak inspection and maintenance plan.* An owner or operator of a facility shall prepare and maintain with the work practice implementation plan a written leak inspection and maintenance plan which shall include the following:

(1) A minimum visual inspection frequency of once per month for all equipment used to transfer or apply coatings or solvents.

(2) An inspection schedule.

(3) The methods for documenting the date and results of each inspection and any repairs that were made.

(4) The time frame between identifying a leak and making the repair, which shall adhere to the following schedule:

(i) A first attempt at repairs, including tightening of packing glands, shall be made within 5 working days after the leak is detected.

(ii) Final repairs shall be made within 15 working days, unless the leaking equipment is to be replaced by a new purchase, in which case repairs shall be completed within 3 months.

(d) *Cleaning and washoff solvent accounting system.* A solvent accounting form shall be developed to [record] **ACCOUNT FOR SOLVENTS USED IN CLEANING AND WASHOFF OPERATIONS. THE INFORMATION RECORDED ON THE FORM SHALL INCLUDE** the following:

(1) [The quantity and type of solvent used each month for washoff and cleaning.] THE TOTAL NUMBER OF PIECES PROCESSED THROUGH WASHOFF OPERATIONS EACH MONTH AND THE REASON FOR THE WASHOFF OPERATIONS.

(2) [The number of pieces washed off and the reason for the washoff.] THE NAME AND TOTAL QUANTITY OF EACH SOLVENT USED EACH MONTH FOR:

(i) CLEANING ACTIVITIES

(ii) WASHOFF OPERATIONS

(3) [The net quantity of spent solvent generated from each activity. The net quantity of spent solvent is equivalent to the total amount of solvent that is generated from the activity minus any solvent that is reused onsite for operations other than cleaning or washoff and any solvent that was sent offsite for disposal.] THE NAME AND TOTAL QUANTITY OF EACH SOLVENT EVAPORATED TO THE ATMOSPHERE EACH MONTH FROM:

(i) CLEANING ACTIVITIES

(ii) WASHOFF OPERATIONS

(e) *Spray booth cleaning.* An owner or operator of a facility may not use compounds containing more than 8.0% by weight of VOC for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, or metal filters, unless the spray booth is being refurbished. If the spray booth is being refurbished, that is, the spray booth coating or other material used to cover the booth is being replaced, the facility shall use no more than 1.0 gallon of solvent to prepare the booth prior to applying the booth coating.

(f) *Storage requirements.* An owner or operator of a facility shall use normally closed containers for storing coating, cleaning and washoff materials.

(g) *Application equipment requirements.* An owner or operator of a facility may not use conventional air spray guns to apply coatings except under any of the following circumstances:

(1) To apply coatings that have a VOC content no greater than 1.0 lb VOC/lb solids (1.0 kg VOC/kg solids), as applied.

(2) For touch-up and repair coatings under one of the following circumstances:

(i) The coatings are applied after completion of the wood furniture manufacturing operation.

(ii) The coatings are applied after the stain and before any other type of coating is applied, and the coatings are applied from a container that has a volume of no more than 2.0 gallons.

(3) The spray is automated, that is, the spray gun is aimed and triggered automatically, not manually.

(4) The emissions from the surface coating process are directed to a VOC control system.

(5) The conventional air spray gun is used to apply coatings and the cumulative total usage of those coatings is no more than 5.0% of the total gallons of coating used during each semiannual reporting period.

(6) The conventional air spray gun is used to apply stain on a part for which **THE DEPARTMENT NOTIFIES THE OPERATOR, IN WRITING, OF ITS DETERMINATION THAT** it is technically or economically infeasible to use any other spray application technology. To support the facility's claim of technical or economic infeasibility, a videotape, a technical report or other documentation shall be submitted to the Department showing either independently or in combination, the following:

(i) The production speed is too high or the part shape is too complex for one operator to coat the part, and the application station is not large enough to accommodate an additional operator.

(ii) The excessively large vertical spray area of the part makes it difficult to avoid sagging or runs in the stain.

(h) *Line cleaning.* The solvent used for line cleaning shall be pumped or drained into a normally closed container.

(i) *Spray gun cleaning.* The solvent used to clean spray guns shall be collected into a normally closed container.

(j) *Washoff operations.* The emissions from washoff operations shall be controlled by the following:

(1) Using normally closed **[tanks] CONTAINERS** for washoff **OPERATIONS**.

(2) Minimizing dripping by tilting or rotating the part to drain as much solvent as possible.

§ 129.104. Compliance procedures and monitoring requirements.

(a) An owner or operator of a facility subject to the emission standards in § 129.102 (relating to emission standards) shall demonstrate compliance with those provisions by using one or more of the following methods:

(1) To support that each sealer, topcoat and strippable spray booth coating meets the requirements of § 129.102(1):

(i) Maintain certified product data sheets for each of [these] THE coatings.

(ii) Maintain documentation showing the VOC content of the AS APPLIED coating [as applied], in lbs VOC/lb solids, if solvent or other VOC is added to the coating before application.

(iii) Perform sampling and testing in accordance with the procedures and test methods specified in Chapter 139 (relating to sampling and testing).

(2) To comply through the use of a control system as described in § 129.102([4]3):

(i) Calculate the required overall control efficiency needed to demonstrate compliance using the following equation:

$$O = (1 - E/C) \times 100$$

Where:

C = the VOC content of [a] THE AS APPLIED coating [as applied], lbs VOC/lb solids

E = the TABLE IV emission limit WHICH SHALL BE achieved by the affected emission point(s), lbs VOC/lb solids

O = the overall control efficiency of the control system, expressed as a percentage

(ii) Document that the value of C in the equation in subparagraph (i) is obtained from the VOC and solids content of the [as-applied] AS APPLIED coating.

(iii) Determine the overall control efficiency of the control system using the procedures and test methods specified in Chapter 139 and demonstrate that the value of O calculated by the following equation is equal to or greater than the value of O calculated by the equation in subparagraph (i):

$$O = (F \times N) (100)$$

Where:

F = the control device efficiency, expressed as a fraction

N = the capture device efficiency, expressed as a fraction

(b) Initial compliance.

(1) *Compliant coatings.* An owner or operator of a facility subject to § 129.102(1) that is complying through the procedures in subsection (a)(1) shall submit an initial compliance status report as required by § 129.106([b]a) (relating to reporting requirements), stating that compliant sealers, topcoats and strippable spray booth coatings are being used by the facility.

(2) *Continuous coaters.* An owner or operator of a facility subject to § 129.102(1) that is complying through the procedures in subsection (a)(1) and is applying sealers, topcoats, or both, using continuous coaters shall demonstrate initial compliance by either:

(i) Submitting an initial compliance status report as required by § 129.106([b]a) stating that compliant sealers, topcoats, or both, as determined by the VOC content of the coating in the reservoir and as calculated from records, are being used.

(ii) Submitting an initial compliance status report as required by § 129.106([b]a) stating that compliant sealers, topcoats, or both, as determined by the VOC content of the coating in the reservoir, are being used and the viscosity of the coating in the reservoir is being monitored. The facility shall also provide data that demonstrates the correlation between the viscosity and the VOC content of the coating in the reservoir.

(3) *Control systems.* An owner or operator of a facility using a control system to comply with this section, §§ 129.101–129.103 and 129.105–129.107 shall demonstrate initial compliance by submitting a report to the Department that:

(i) Identifies the operating parameter value to be monitored for the capture device and discusses why the parameter is appropriate for demonstrating ongoing compliance.

(ii) Includes the results of the initial performance testing using the procedures and test methods specified in Chapter 139.

(iii) Includes calculations of the overall control efficiency (O) using the equation in subsection (a)(2)(iii).

(iv) Defines those operating conditions of the control system critical to determining compliance and establishing operating parameter values that will ensure compliance with the standard.

(A) For compliance with a thermal incinerator, minimum combustion temperature shall be the operating parameter value.

(B) For compliance with another control system, the operating parameter value shall be established using the procedures identified in subsection (c)(3)(~~iii~~iv).

(v) An owner or operator of a facility complying with this paragraph shall calculate the site-specific operating parameter value as the arithmetic average of the maximum or minimum operating parameter values, as appropriate, that demonstrate compliance with the standards, using the procedures specified in Chapter 139.

(4) *Work practice implementation plan.* An owner or operator of a facility subject to the work practice standards of § 129.103 (relating to work practice standards) shall submit an initial compliance status report as required by § 129.106(~~b~~a), stating that the work practice implementation plan has been developed and procedures have been established for implementing the provisions of the plan.

(c) *Continuous compliance demonstrations.* An owner or operator of a facility subject to the requirements of this section, §§ 129.101–129.103 and 129.105–129.107 shall submit, in writing, to the Department a compliance certification with the semiannual report required by § 129.106(~~c~~b).

(1) *Compliant coatings.* An owner or operator of a facility subject to § 129.102 that is complying through the procedures specified in subsection (a)(1) shall demonstrate continuous compliance by the following:

(i) Using compliant coatings.

(ii) Maintaining records that demonstrate the coatings are compliant.

(iii) Submitting a compliance certification which states that compliant sealers, topcoats, or both, and strippable spray booth coatings have been used each day in the semiannual reporting period or should otherwise identify the days of noncompliance and the reasons for noncompliance.

(2) *Continuous coaters.* An owner or operator of a facility subject to § 129.102 that is complying through the procedures specified in subsection (a)(1) and is applying sealers, topcoats, or both, using continuous coaters shall demonstrate continuous compliance by either:

(i) Using compliant coatings as determined by the VOC content of the coating in the reservoir and as calculated from records, and submitting a compliance certification which states that compliant sealers, topcoats, or both, have been used each day in the semiannual reporting period or should otherwise identify the days of noncompliance and the reasons for noncompliance.

(ii) Using compliant coatings, as determined by the VOC content of the coating in the reservoir, maintaining a viscosity of the coating in the reservoir that is no less than the viscosity of the initial coating by monitoring the viscosity with a viscosity meter or by testing the viscosity of the initial coating and retesting the viscosity of the coating in the reservoir each time solvent is added, maintaining records of solvent additions and submitting a compliance certification which states that compliant sealers, topcoats, or both, as determined by the VOC content of the coating in the reservoir, have been used each day in the semiannual reporting period. Additionally, the certification shall state that the viscosity of the coating in the reservoir has not been less than the viscosity of the initial coating, that is, the coating that is initially mixed and placed in the reservoir, for any day in the semiannual reporting period or should otherwise identify the days of noncompliance and the reasons for noncompliance.

(3) *Control systems.* An owner or operator of a facility subject to § 129.102 that is complying through the use of a control system shall demonstrate continuous compliance by the following:

(i) Installing, calibrating, maintaining and operating monitoring equipment approved, in writing, by the Department.

(ii) Using a device to monitor the site-specific operating parameter value established in accordance with subsection (b)(3)(i).

(iii) Where a thermal incinerator is used, a temperature monitoring device equipped with a continuous recorder is required and shall be installed in the firebox or in the ductwork immediately downstream of the firebox at a location before any substantial heat exchange occurs.

(iv) An owner or operator using a control system not listed in this section shall submit, in writing, to the Department a description of the system, test data verifying the performance of the system, the appropriate operating parameter values that will be monitored and the

monitoring device that will be used to demonstrate continuous compliance with the standard and receive, in writing, the Department's approval prior to use.

(v) An owner or operator of a facility may not operate the control system at a daily average value greater than or less than (as appropriate) the operating parameter value. The daily average value shall be calculated as the average of all values for a monitored parameter recorded during the operating day.

(vi) Submitting a compliance certification which states that the control system has not been operated at a daily average value greater than or less than (as appropriate) the operating parameter value for each day in the semiannual reporting period or should otherwise identify the days of noncompliance and the reasons for noncompliance.

(4) *Work practice implementation plan.* An owner or operator of a facility subject to the work practice standards of § 129.103 shall demonstrate continuous compliance by following the work practice implementation plan and submitting a compliance certification which states that the work practice implementation plan is being followed, or should otherwise identify the periods of noncompliance with the work practice standards and the reasons for noncompliance.

(d) *Compliance certification requirements.* The compliance certification shall be signed by a responsible official of the company that owns or operates the facility. In addition to the certification requirements of this section, the certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate and complete.

§ 129.105. Recordkeeping requirements.

(a) *Requirement.* The owner or operator of a wood furniture manufacturing operation shall keep records to demonstrate compliance with this section, §§ 129.101[,]-129.104, 129.106 and 129.107. The records shall be maintained for at least 5 years.

(b) *Compliant coatings.* The following records shall be maintained to demonstrate compliance with § 129.102 (relating to emission standards).

(1) A certified product data sheet for each coating and strippable spray booth coating subject to the emission limits of § 129.102.

(2) The VOC content as applied, lbs VOC/lb solids (kg VOC/kg solids), of each coating and strippable spray booth coating subject to the emission limits of § 129.102, and copies of data sheets documenting how the [as-applied] AS APPLIED values were determined.

(c) *Continuous coaters.* The owner or operator of a facility subject to the emission limits of § 129.102 that is complying through the procedures specified in § 129.104(a)(1) (relating to compliance procedures and monitoring requirements) and is applying sealers, topcoats, or both, using continuous coaters shall maintain the records required by subsection S (a) AND (b) and records of the following:

(1) Solvent and coating additions to the continuous coater reservoir.

(2) Viscosity measurements.

(d) *Control systems.* The owner or operator of a facility complying through the procedures specified in § 129.104(a)(2) by using a control system shall maintain the following records:

(1) Copies of the calculations to support the equivalency of using a control system, as well as the data that are necessary to support the calculation of C and E in § 129.104(a)(2)(i) and O in § 129.104(a)(2)(iii).

(2) Records of the daily average value of each continuously monitored parameter for each operating day. If all recorded values for a monitored parameter are within the range established during the initial performance test, the owner or operator may record that all values were within the range rather than calculating and recording an average for that day.

(e) *Work practice implementation plan.* The owner or operator of a facility subject to the work practice standards of § 129.103 (relating to work practice standards) shall maintain onsite copies of the work practice implementation plan and all records associated with fulfilling the requirements of that plan, including:

(1) Records demonstrating that the operator training program is in place.

(2) Records maintained in accordance with the leak inspection and maintenance plan.

(3) Records associated with the cleaning and washoff solvent accounting system.

(4) Records associated with the limitation on the use of conventional air spray guns showing total coating usage and the percentage of coatings applied with conventional air spray guns for each semiannual reporting period.

(5) Records showing the VOC content of compounds used for cleaning booth components, except for solvent used to clean conveyors, continuous coaters and their enclosures or metal filters.

(6) Copies of logs and other documentation developed to demonstrate that the other provisions of the work practice implementation plan are followed.

(f) In addition to the recordkeeping requirements of subsection (a), the owner or operator of a facility that complies with § 129.103 or 129.104(a)(1) shall maintain a copy of the compliance certifications submitted in accordance with § 129.106([c]b) (relating to reporting requirements) for each semiannual period following the compliance date.

(g) The owner or operator of a facility shall maintain a copy of the other information submitted with the initial status report required by § 129.106([b]a) and the semiannual reports required by § 129.106([c]b).

§ 129.106. Reporting requirements.

[(a) *Initial notification.* The owner or operator of a facility subject to this requirement shall submit to the Department an initial notification which meets the requirements of 40 CFR 63.9(b) (relating to notification requirements).]

[(b)a) *Initial compliance report date.* The initial compliance report shall be submitted to the Department within 60 days after the compliance date specified in § 129.101(b) and (c) (relating to general provisions and applicability). The report shall include the items required by § 129.104(b) (relating to compliance procedures and monitoring requirements).]

[(c)b) *Semiannual compliance report dates.* When demonstrating compliance in accordance with § 129.104(a)(1) or (2), a semiannual report covering the previous 6 months of wood furniture manufacturing operations shall be submitted to the Department according to the following schedule:

(1) The first report shall be submitted within 30 calendar days after the end of the first 6-month period following the compliance date specified in § 129.101(b) and (c).

(2) Subsequent reports shall be submitted within 30 calendar days after the end of each 6-month period following the first report.

(3) Each semiannual report shall include the information required by § 129.104(c) and (d), a statement of whether the facility was in compliance or noncompliance and, if the facility was in noncompliance, the measures taken to bring the facility into compliance.

§ 129.107. Special provisions for facilities using an emissions averaging approach.

(a) *Emissions averaging approach.* An owner or operator of a facility subject to the emission limitations in § 129.102 (relating to emission standards) may use an emissions averaging approach which meets the equivalency requirements in § 129.51(a) (relating to general) to achieve compliance with § 129.52 (relating to surface coating processes) or this section and §§ 129.101–129.106.

(b) *Additional requirement.* When complying with the requirements of § 129.52 or this section and §§ 129.101–129.106 through emissions averaging, an additional 10% reduction in emissions shall be achieved when compared to a facility using a compliant coatings approach to meet the requirements of this section and §§ 129.101–129.106.

(c) *Program goals and rationale.* When using an emissions averaging program, the following shall be submitted to the Department in writing:

(1) A summary of the reasons why the facility would like to comply with the emission limitations through an equivalency determination using emissions averaging procedures.

(2) A summary of how averaging can be used to meet the emission limitations.

(d) *Program scope.* A description of the types of coatings that will be included in the facility's emissions averaging program shall also be submitted to the Department in writing.

(1) Stains, basecoats, washcoats, sealers and topcoats may all be used in the emissions averaging program.

(2) The **OWNER OR OPERATOR OF THE** facility may choose other coatings for its emissions averaging program, provided the program meets the equivalency requirements in § 129.51(a).

(3) Coatings that are applied using continuous coaters may only be used in an emissions averaging program if the **OWNER OR OPERATOR OF THE** facility can determine the amount of coating used each day.

(4) A daily averaging period shall be used, except under the following conditions:

(i) A longer averaging period may be used if the owner or operator of the facility demonstrates in writing to the satisfaction of the Department that the emissions do not fluctuate significantly on a day-to-day basis.

(ii) The owner or operator of the facility requests in writing and the Department approves in writing the longer averaging period.

(e) *Program baseline.* The baseline for each coating included in the emissions averaging program shall be the lower of the actual or allowable emission rate as of _____
(*Editor's Note:* The blank refers to the effective date of this final rulemaking.) The facility baseline emission rate may not be higher than what was presumed in the 1990 emissions inventory for the facility unless the Department has accounted for the increase in emissions as growth.

(f) *Quantification procedures.* The emissions averaging program shall specify methods and procedures for quantifying emissions. Quantification procedures for VOC content are included in Chapter 139 (relating to sampling and testing). The quantification procedures shall also include methods to determine the usage of each coating and shall be accurate enough to ensure that the facility's actual emissions are less than the allowable emissions.

(g) *Monitoring, recordkeeping and reporting.* A written summary of the monitoring, recordkeeping and reporting procedures that will be used to demonstrate compliance on a daily basis, when using an emissions averaging approach, shall be submitted to the Department.

(1) The monitoring, recordkeeping and reporting procedures shall be structured so that inspectors and facility owners or operators can determine a facility's compliance status for any day.

(2) The monitoring, recordkeeping and reporting procedures shall include methods for determining required data when monitoring, recordkeeping and reporting violations result in missing, inadequate or erroneous monitoring and recordkeeping.

CHAPTER 139. SAMPLING AND TESTING

Subchapter A. SAMPLING AND TESTING METHODS AND PROCEDURES

GENERAL

§ 139.4. References.

The references referred to in this chapter are as follows:

* * * * *

(5) Source Testing Manual, Commonwealth of Pennsylvania, Department of Environmental [Resources] PROTECTION, Bureau of Air Quality [Control], Post Office Box 8468, Harrisburg, Pennsylvania 17105-8468, including future revisions as noted in § 139.5(b) (relating to revisions to the source testing manual and continuous source monitoring manual).

* * * * *

STATIONARY SOURCES

§ 139.14. Emissions of VOCs.

(a) The following are applicable to tests for determining volatile organic content:

(1) Test methods and procedures for the [volatile organic content,] TOTAL VOLATILES CONTENT, SOLIDS CONTENT, EXEMPT SOLVENT CONTENT, water content and density of surface coatings shall be equivalent to those specified in § 139.4(1) and (5) (relating to references).

* * * * *

**Surface Coating Processes
Comment and Response Document
Regulatory Basics Initiative No. 4**

September 14, 1999

**Bureau of Air Quality
Department of Environmental Protection**

The Environmental Quality Board (Board) published notice of the public comment period and public hearings for the Surface Coating Processes (RBI #4) proposed rulemaking in the *Pennsylvania Bulletin* on March 6, 1999 (29 *Pa. B.* 1299). The Board held four public hearings on the proposal at the following Regional Offices of the Department of Environmental Protection:

April 6, 1999	Southwest Regional Office 400 Waterfront Drive Pittsburgh, PA
April 7, 1999	Southcentral Regional Office Susquehanna River Conference Room 909 Elmerton Avenue Harrisburg, PA
April 8, 1999	Southeast Regional Office Suite 6010 - Lee Park 555 North Lane Conshohocken, PA
April 9, 1999	Northcentral Regional Office 208 West Third Street Williamsport, PA

The public comment period for the RBI # 4 proposed rulemaking closed on May 10, 1999. Testimony received during the public hearings and written comments received during the public comment period are summarized in this comment and response document. The identity of each commentator is indicated by the assigned number(s) in parentheses after each comment.

This is a list of corporations, organizations and interested individuals from whom the Environmental Quality Board has received comments regarding the above referenced regulation.

ID	Name/Address	Zip	Submitted 1 pg Summary	Provided Testimony	Requested Final Rulemaking
1	Charles W. Taylor Manager of Purchasing Yorktowne Cabinets Corporate Headquarters 100 Redco Avenue P.O. Box 231 Red Lion, PA	17356-0231			X
2	Robert C. Matejka Environmental Manager Akzo Nobel Coatings Inc. 1431 Progress Ave. P.O. Box 2124 High Point, NC	27261			X
3	Mr. C. Richard Titus KMCA 1899 Preston White Dr. Reston, VA	22091		T	
4	Mr. Nick Nehez The Gryphin Co. P.O. Box 5910 Philadelphia, PA	19137		T	
5	Mr. Michael E. Ludecker Manger, Safety & Environmental Services Wood Mode, Inc. Kreamer, PA	17833		T	
6	Mr. Richard Gudz Waste Stream Manager Cardone Industries, Inc. 5501 Whitaker Ave. Philadelphia, PA	19124-1799	S	T	
7	Coating Development Group, Inc. c/o Frederick P. Obst President Environ Tech Associates, Inc. 485 Juniper St. Warminster, PA	18974			X
8	Mr. Robert J. Varney Sr. Project/Plant Engineer Pennsylvania House 137 North 10th Street Lewisburg, PA	17837			X
9	Mr. Andy S. Counts Vice President of Environmental Affairs American Furniture Manufacturers Assn. 223 South Wrenn Street Post Office Box HP-7 High Point, NC	27261			

ID	Name/Address	Zip	Submitted 1 pg Summary	Provided Testimony	Requested Final Rulemaking
10	Dale W. Deist, President Bucks Fabricating 3547 Perry Highway Hadley, PA	16130			
11	Ms. Cristina Fernandez U.S. EPA, Region III 1650 Arch Street Philadelphia, PA	19103-2029	S		
12	H. Allen Irish Counsel National Paint and Coatings Assn. 1500 Rhode Island Ave., N.W. Washington, DC	20005			
13	David Rothermel Stylecraft Corporation P.O. Box 458 Blue Bell, PA	17506		T	
14	Independent Regulatory Review Commission				

COMMENTS AND RESPONSES

General Comments

1. Comment: In general, my company supports the proposed rulemaking. (Commentators 1, 5, 10,13)

Response: The Department appreciates industry support of the surface coating processes proposed rulemaking published at 29 *Pa. B.* 1299 (March 6, 1999).

2. Comment: When we (industry) have informal meetings, we would like to invite someone from the Department to attend. Informal presentations seem to accomplish more. (Commentator 4)

Response: The Department agrees and will allow air quality staff to attend such meetings periodically to discuss surface coating process requirements, as appropriate.

3. Comment: That which is simplest works the best. Anytime we can take these regulations and simplify them, it is to everyone's benefit. (Commentator 4)

Response: Revisions to §129.52 should clarify and simplify existing requirements for surface coating processes. In addition, the presumptive RACT requirements for wood furniture manufacturing in §§ 129.101 –129.107 are consistent with the federal CTG and EPA's model rule, developed after reaching consensus with the regulated community.

4. Comment: The American Furniture Manufacturers Association (AFMA) supports the use of the presumptive reasonably available control technology (RACT) requirements for wood furniture manufacturing operations in Pennsylvania. (Commentator 9)

Response: The Department appreciates AFMA's support of the proposed rulemaking.

5. Comment: Generally, the proposed requirements of §§ 129.101-129.107 are consistent with the RACT requirements and model rule presented in the Control Techniques Guidelines (CTG). However, there are several inconsistencies that create an additional layer of confusion for both DEP and the regulated community. This confusion could be avoided by adopting the presumptive RACT contained in the CTG by reference. Otherwise changes should be made to clarify the proposed rule. (Commentator 9)

Response: As revised for final rulemaking, Pennsylvania's presumptive RACT requirements for wood furniture manufacturing operations will be consistent with EPA's "Model Rule for Wood Furniture Finishing and Cleaning Operations." The revisions to the proposal clarify the applicability of the presumptive RACT requirements and existing wood furniture manufacturing operations requirements in 25 *Pa. Code* § 129.52. The presumptive RACT requirements in

CTGs provide the basic framework for local and state air quality programs as well as an information base for air permitting authorities to proceed with their own RACT analyses to meet statutory requirements. States may also develop their own RACT requirements on a case-by-case basis.

Definitions

6. Comment: The definition for the term “Certified Product Data Sheet” (CPDS) states that the CPDS should include the content of hazardous air pollutants (HAPs). This information should not be required on a data sheet used to determine compliance with a volatile organic compound (VOC) rule. (Commentator 3)

Response: For the presumptive RACT for wood furniture manufacturing operations, the “CPDS” definition has been revised to only require information pertaining to the volatile organic compound (VOC) content. The “CPDS-Certified Product Data Sheet” definition applies solely to the wood furniture manufacturing requirements in §§129.101-129.107.

7. Comment: We suggest that the Department clearly indicate that adhesives are not included in the definition of “coatings.” As currently written, this could be open to question. (Commentator 3)

Response: The “coating” definition has been revised and explicitly states that the term does not include “adhesives”. Although certain adhesives are regulated under § 129.52, Table I, Categories 1 – 10, adhesives are not regulated for VOC content under § 129.52, Table I, Category 11 and §§ 129.101-129.107. The term “coating” applies only to wood furniture manufacturing requirements in §§129.101-129.107.

8. Comment: The definition of the term “coating solids or solids” states that the “Solids content is determined using data from the Environmental Protection Agency (EPA) Reference Method 24 or an alternative method.” It is not clear if EPA or the DEP must approve the “alternative method.” (Commentator 14)

Response: According to the proposed definition of the term “alternative method” in § 121.1, EPA must approve any method of sampling and analyzing for an air pollutant that is not a reference or equivalent method. Nonetheless, the Department has added clarifying language to the definition of the term “coating solids or solids” indicating that EPA approval is required. The Legislative Reference Bureau may omit this revision because the definition of “alternative method” states that the sampling method must be “demonstrated to the satisfaction of the Administrator of the EPA.” The “coating solids or solids” definition applies only to the wood furniture manufacturing requirements in §§129.101-129.107.

9. Comment: The presumptive RACT standard contains no definition for the term “enamel.” The proposed “enamel” definition was taken from the EPA’s maximum achievable control

technology (MACT) standard. Retaining the definition of “enamel” from the MACT standard will only cause confusion in the field. (Commentators 3, 5, 8)

Response: The commentators are mistaken. EPA’s “Model Rule for Wood Furniture Finishing and Cleaning Operations” contains the same definition of “enamel” included in Pennsylvania’s RBI #4 proposal. Therefore, the “enamel” definition in the proposed rule will be retained in the final rulemaking. See pages B-5 and 6, Section B.3 (relating to definitions and nomenclature) of EPA’s model rule.

10. Comment: We suggest that the term “enamel” be included in the definition of “topcoat” for purposes of the presumptive RACT regulation. (Commentators 3, 5)

Response: EPA’s model rule provides separate definitions for the terms “enamel” and “topcoat.” Pennsylvania’s proposed rulemaking includes definitions for the terms “enamel” and “topcoat” which mirror definitions in EPA’s model rule. Therefore, the suggested revisions are not consistent with the presumptive RACT requirements for state programs and will not be adopted and implemented by the Department.

11. Comment: The proposed definition of the term “enamel” is consistent with the EPA’s model rule. The “enamel” definition conflicts with the existing definition of the term “opaque ground coats and enamels” in *25 Pa. Code* § 121.1. The Environmental Quality Board (Board) should define the terms “opaque ground coats” and “enamels” separately to eliminate this inconsistency. (Commentator 14)

Response: The Department agrees that the proposed definition of “enamel” is consistent with the model rule and will not delete the definition. The Department will regulate “basecoats” instead of “opaque ground coats and enamels” under § 129.52, Table I, Category 11(d). Additional revisions to Table I provide for the regulation of both “topcoats and enamels” in place of “topcoats” in Table I, Category 11(a). The final rulemaking will also delete the definition of “opaque ground coats and enamels.” These changes should address the commentator’s concerns.

12. Comment: The category “all other coatings” as defined under § 129.52 Table I, Category 11(e) is too broad and precludes any low solids stains, highlight materials, and similar materials from complying as none can meet a limit of 14.3 pounds of VOC per pound of solids. (Commentators 3, 12)

Response: The final rulemaking deletes the term “other coatings” for wood furniture manufacturing operations. If a coating should not be included in any coating category specified in § 129.52, Table I, Category 11 or § 129.102, Table IV, the coating would not have a VOC content limit. If the coating does not meet the VOC limits in § 129.52, the surface coater can either request an exemption under § 129.52 or use an alternative compliance method incorporated into a plan approval or operating permit in accordance with § 129.51(a)(6).

13. Comment: The category of “all other coatings” found in Table I, Category 11(e), should be changed to “other coatings” as defined in § 121.1. “All other coatings” has always been

interpreted to be the same as “other coatings” in the field, but this situation is a potential source of confusion. The interpretation is going to be more difficult with the deletion of the terms “semitransparent spray stains” and “semitransparent wiping and glazing stains.” We will now have large categories of materials which are not clearly defined and which may be mistakenly put in the category of “all other coatings.” It would also be helpful to have a clarification of this in the Preamble. (Commentators 5, 8, 14)

Response: The amendments to § 129.52, Table I, Category 11(e) delete the term “all other coatings” and replace it with the term “cosmetic specialty coatings.”

14. Comment: The Preamble should state that if a coating does not fit the definition of a coating listed in Tables I or IV, it does not have a regulatory VOC content limit. (Commentators 5, 8)

Response: Revisions to the Preamble clarify that if a coating is not covered under one of the listings in § 129.52, Table I, Category 11 or § 129.102, Table IV, the coating does not have a regulatory VOC content limit. For purposes of evaluating compliance with the specified VOC content limits in Tables I and IV, any coating that should not be included in a coating category specified in § 129.52, Table I, Category 11 or § 129.102, Table IV would not have a regulatory VOC content limit.

15. Comment: The definition of the term “spent solvent” provided in § 129.103(d)(3) is not clear and should be modified. The existing definition would almost always yield a result of zero. (Commentators 5, 8)

Response: The Department has revised the spent solvent provision in § 129.103(d)(3) to clarify that the owner/operator of the facility must document the quantity of each organic solvent evaporated to the atmosphere from the cleaning and washoff operations.

16. Comment: The definition of “stain” conflicts with the definition of “other coatings” in § 121.1. “Other coatings” includes some of the same coatings as “stain.” This creates confusion. (Commentator 8)

Response: The Department has changed the term “other coatings” to “cosmetic specialty coatings”. The definitions of “coating” and “stain” only apply to activities subject to the provisions of § § 129.101 -129.107.

17. Comment: The proposed definition of “stain” limits solids content to 8% by weight maximum. Most wiping stains and many toners used in the cabinet industry have greater than 8% solids by weight. The definition of “stain” has no functional value in either the existing § 129.52 or in the proposed RACT regulations and should be deleted. This definition was also taken from the MACT standard. (Commentator 5)

Response: Stains are used in the wood furniture industry to “add initial color, even out color or accent the natural grain.” The term “stain” has “functional value” when averaging VOC

emissions to demonstrate compliance with the requirements in §§ 129.101- 129.107. Please note that the “stain” definition included in the final rulemaking is taken from EPA’s CTG and model rule for wood furniture manufacturing operations.

18. Comment: The term “topcoat” is defined as the last film building coating. The definition should reflect the fact that topcoats can be put on in several layers. (Commentators 5, 8)

Response: The definition of the term “topcoat” refers to the last coating that is applied, not to the last layer. The definition of “topcoat” has been revised to clarify that any of the coatings can be applied in several layers.

19. Comment: The definition of the term “wood furniture component” should be changed to avoid any question about whether this rule covers the coating of metal parts going into wood furniture, such as drawer sides. (Commentator 12)

Response: The proposed definition of the term “wood furniture component,” derived from EPA’s “Model Rule for Wood Furniture Finishing and Cleaning Operations,” will be retained in the final-form regulations. The coating of metal parts of wood furniture components will continue to be regulated under § 129.52, Table I, as appropriate.

20. Comment: The definition of the term “wood furniture component” should be made less restrictive by adding the phrase “but is not limited to” after “includes” in § 121.1. This would clarify that all components are covered by this rule, rather than the more restrictive list currently included in the definition of “wood furniture component.” (Commentator 12)

Response: The use of the word “includes” is not more restrictive or exclusive and is interpreted in the same manner as the phrase “includes, but is not limited to.” When drafting regulations, the word “includes” is a substitution preferred by Pennsylvania’s Legislative Reference Bureau for the phrase “includes, but is not limited to.” Section 6.16(b)(3) of the *Pennsylvania Code* and *Bulletin Style Manual* stipulates that the use of the phrase “includes, but is not limited to” should be avoided when drafting regulations.

Standard Solvent Density Adjustment

21. Comment: Deletion of the existing requirement to adjust the VOC content by using a standard solvent density of 7.36 pounds per gallon is a good idea since this concept never had good technical merit as to yield correct values or relationships for compliance. (Commentator 2)

Response: Although the expressed reference to the 7.36 adjustment has been deleted, the adjustment is reflected in the conversion of the VOC content limits in § 129.52, Table I from the gallons of coating less water basis to the solids basis. The conversion was made using the 7.36 lb VOC/gal VOC standard solvent density factor.

Sections 129.52(b)(1) and (1)(i), (ii), (iii), and (iv)

22. Comment: The regulation makes reference in § 129.52(b)(1) to the limits being “VOC content of each coating as applied is equal to or less than the standard specified in Table I.” There is no reference to transfer efficiencies even though the provision infers that you must account for transfer efficiencies. (Commentator 11)

Response: The term “as applied” means “[t]he VOC and solids content of a coating that is actually used to coat the substrate. The term includes the contribution of materials used for in-house dilution of the coating. In the final rulemaking, the term “as applied” will require the permittee to account for the VOC and solids content of the coating after mixing but prior to actual application for compliance purposes. The term “solids applied” means the amount of coating solids that actually adheres to the object being coated and is measured by incorporating the transfer efficiency. Therefore, the transfer efficiency is not taken into account for the “as applied” coatings regulated under this final rulemaking.

23. Comment: Section 129.52(b)(1)(i) should specify that it applies to coating operations (such as spray, rotating head, electrodeposition, flow coat, etc.) where solvent is not being added to the coating prior to application. (Commentator 11)

Response: Section 129.52(b)(1)(i) applies to as applied coatings, that is, coatings as mixed for application. Solvent added to the coating prior to application is included in the evaluation of the coating for compliance with VOC content limits.

24. Comment: Since § 129.52(b)(1)(i) does not apply to dip coating processes, it is not clear whether the 30-day rolling average applies or if compliance is to be determined on an instantaneous basis. (Commentator 11)

Response: Evaluation of a coating for compliance with § 129.52(b)(1)(i) is to be determined on an instantaneous basis. The VOC content is determined either by review of coating records or by sampling the as applied coating and analyzing the sample by EPA Reference Method 24 and other methods listed in the Department’s Source Testing Manual. If the company’s reported VOC content and the Department’s laboratory analysis for a particular coating differ, the Department’s laboratory analysis controls if it shows the coating to be out of compliance with the allowable VOC emissions limit.

25. Comment: Sections 129.52(b)(1)(i) and (ii) are used to calculate the weight of VOC per volume of coating solids (lb VOC/gal coating solids) with (ii) being the dip coating operation. We suggest that the two subparagraphs should be combined into one for determining compliance on a volume coating solids basis. Dip coating equations can then be specifically addressed within this combined subparagraph and calculated on the 30-day rolling average basis. This approach would clarify the regulations and allow for dip coating operations. (Commentator 11)

Response: Sections 129.52(b)(1)(i) and (ii) will both be retained in the final rulemaking. Subparagraph (i) covers as applied coatings (that is, coatings as mixed for application) evaluated on an instantaneous basis. Revisions to subparagraph (ii) clarify that the subparagraph pertains to affected dip coating processes for which the VOC content of the coating must be determined on the 30-day rolling average basis. This equation includes, in the calculation of the VOC content of the coating, the amount of any solvent added to the coating to replace solvent lost to the atmosphere due to evaporation from the coating.

26. Comment: The units of VOC_b in § 129.52(b)(1)(iii) are expressed in weight of VOC per weight of coating solids (lb VOC/lb coating solids). Therefore it appears that this subparagraph applies to wood coating processes. If so, this should be indicated. (Commentator 11)

Response: The affected surface coating process is indicated by referring to the categories in Table I in § 129.52 (relating to surface coating processes) and Table IV in § 129.102 (relating to emission standards) which use the units of weight of VOC per weight of coating solids. This will allow for inclusion of other surface coating categories in the future, if appropriate.

27. Comment: Since § 129.52(b)(1)(iii) does not apply to dip coating processes, it is not clear whether the 30-day rolling average applies or if compliance is to be determined on an instantaneous basis. (Commentator 11)

Response: Evaluation of a coating for compliance with § 129.52(b)(1)(iii) is to be determined on an instantaneous basis. The VOC content is determined either by sampling the as applied coating and analyzing the sample by EPA Reference Method 24 and other methods listed in the Department's Source Testing Manual or by review of coating records. If the company's reported VOC content and the Department's laboratory analysis for a particular coating differ, the Department's laboratory analysis controls if it shows the coating to be out of compliance with the allowable VOC content limit.

28. Comment: Sections 129.52(b)(1)(iii) and (iv) are used to calculate weight of VOC per weight of coating solids (lb VOC/lb coating solids) with (iv) being the wood furniture dip operation. We suggest that the two subparagraphs should be combined into one for determining compliance on a weight coating solids basis. Dip coating equations can then be specifically addressed within this combined subparagraph and calculated on the 30-day rolling average. This change would provide clarity and allow for wood furniture dip coating operations. (Commentator 11)

Response: As proposed, § 129.52(b)(1)(iv) would have imposed more stringent requirements than the presumptive RACT standard for wood furniture manufacturing operations that have the potential to emit VOC emissions of 25 tons per year or more. Therefore, the proposed language in § 129.52(b)(1)(iv) has been deleted.

29. Comment: It seems redundant to make any reference to wood furniture in §§ 129.52(b)(1)(iii) and (iv) as the category in Table I that would apply to these calculations would, in effect, take care of that reference. (Commentator 11)

Response: The affected process is indicated by referring to the surface coating categories shown in § 129.52, Table I and § 129.102, Table IV which express VOC limitations in units of weight of VOC per weight of coating solids. This will allow for inclusion of other surface coating categories in the future, if appropriate.

VOC Emissions Averaging

30. Comment: The averaging of VOC emissions from dip tanks on a 30-day rolling basis is an excellent new concept. Let's hope it works. (Commentator 2)

Response: The Department appreciates industry support of the proposed emissions averaging approach for dip coating operations. The equation in § 129.52(b)(1)(ii) for calculating the emissions average includes the amount of any solvent added to the coating to replace solvent lost to the atmosphere due to evaporation from the coating. The proposed language in § 129.52(b)(1)(iv) has been deleted. As proposed, this section would have imposed requirements that were more stringent than the presumptive RACT requirements in §§ 129.101-129.107 on wood furniture manufacturing operations that have the potential to emit VOC emissions of 25 tons per year or more.

Specific Request for Comments - Question One – Compliance with Both § 129.52 and §§ 129.101-129.107

The Board specifically requested comments concerning the need for owners or operators of wood furniture manufacturing facilities with actual emissions or the potential to emit 25 tons per year or more of VOCs to comply with both the surface coating requirements in § 129.52 and the proposed presumptive RACT requirements in §§ 129.101-129.107.

31. Comment: Relative to the first question posed in Section J (relating to public comments) of the Preamble, wood furniture manufacturers subject to the proposed §§ 129.101-129.107 should have to comply only with the proposed presumptive RACT requirements. Manufacturers should no longer be subject to the requirements in § 129.52. (Commentators 1, 2, 3, 8, 9, 12, 14)

Response: The existing wood cabinet and furniture finishing provisions in § 129.52 were adopted by the Board on May 7, 1988 and will continue to apply to all affected wood furniture manufacturing operations. Generally, facilities which are currently regulated under § 129.52 have demonstrated compliance with the applicable VOC content limits and should therefore have no trouble continuing to comply with the applicable requirements of § 129.52. Any facility that is subject to both § 129.52 and §§ 129.101-129.107 need only demonstrate compliance with the more stringent emissions limitation or other applicable requirement as specified in § 129.101(e).

32. Comment: To require wood furniture and cabinet manufacturers to adhere to two different and often conflicting sets of surface coating regulations is inconsistent with Executive Order 1996-1 and the Department's Regulatory Basics Initiative. Additionally, requiring compliance with both the presumptive RACT requirements and § 129.52 places extra restrictions on manufacturing processes (above the federal CTG requirements), is difficult to understand, largely redundant, and requires excessive recordkeeping and reporting. (Commentator 5, 9, 14)

Response: The surface coating processes proposed rulemaking is consistent with the principles of Executive Order 1996-1 which provides, in relevant part, that "if federal regulations exist, regulations of the Commonwealth may not exceed federal standards unless justified by a compelling and articulable Pennsylvania interest or required by State law." The existing requirements in § 129.52 were adopted to help reduce VOC emissions in order to meet the ambient air quality standard for ozone. See 18 *Pa. B.* 2098 (May 7, 1988). The entire Commonwealth is included in the Ozone Transport Region established under Section 184 of the Clean Air Act. See 42 U.S.C. § 7511(c). Therefore, retention of § 129.52 is justified by a compelling Pennsylvania interest, achieving and maintaining the NAAQS for ozone.

In addition, retention of the wood cabinet and furniture finishing requirements of § 129.52 is not contrary to applicable requirements of Pennsylvania's Air Pollution Control Act (APCA). Section 4.2(f) provides that the Board may retain existing requirements in § 129.52 if the regulations were adopted prior to July 9, 1992. See 35 P.S. § 4004.2(f). The Board adopted the wood cabinet and furniture finishing provisions in § 129.52 on May 7, 1988. These provisions are currently being met by most facilities. Whenever a surface coating process is subject to the presumptive RACT requirements and the requirements of § 129.52, the facility must demonstrate compliance with the more stringent requirement.

If the requirements of § 129.52 are deleted for larger wood furniture manufacturing operations, facilities with actual VOC emissions greater than 2.7 tons per year, but potential emissions of VOCs less than 25 tons per year, would no longer be regulated. Consequently, those facilities could then legally use non-complying materials and application equipment, increase VOC emissions and counteract the Department's efforts to comply with the federal National Ambient Air Quality Standard (NAAQS) for ozone.

33. Comment: To require wood furniture and cabinet manufacturers to adhere to two different and often conflicting sets of surface coating regulations places Pennsylvania at a competitive disadvantage with other furniture and cabinet manufacturing states. (Commentator 5, 14)

Response: The Department has enforced the requirements of § 129.52 for wood furniture manufacturing operations for more than a decade. Most affected facilities are in compliance with the existing requirements. Several major wood furniture manufacturers in Pennsylvania do business nationwide while demonstrating compliance with the existing provisions in § 129.52.

34. Comment: Every major component of § 129.52 is also included in §§ 129.101-129.107. They both have material VOC content limits, application equipment requirements, and recordkeeping and reporting obligations. It is our position that at the time a facility reaches the

potential to emit of VOCs of 25 tons per year or more, only the more stringent presumptive RACT requirements of §§ 129.101-129.107 should apply. (Commentator 5)

Response: The proposed language in § 129.101(e) states that “when subject to § 129.52 and this section and §§ 129.102-129.107, the more stringent limitation applies to the wood furniture manufacturing operation.” Therefore, the more stringent requirements will apply to the facility. In some circumstances, § 129.52 requirements will apply instead of the newly adopted presumptive RACT requirements. Whenever a facility’s actual emissions exceed 2.7 tons per year and its potential VOC emissions reach 25 tons per year or more, the facility owner/operator need only demonstrate compliance with the more stringent provision. Title V permits issued to major wood furniture manufacturing operations would contain streamlined permit conditions. The most stringent applicable requirement would be included in the permit. In such instances, the streamlined permit condition would assure compliance with the less stringent provision. Consequently, the permit would not contain duplicative permit conditions.

35. Comment: Presumptive RACT addresses the requirement for the wood cabinet and furniture finishing surface coating category “clear topcoat” contained in existing § 129.52, Table I, Category 11, by increasing the minimum solids limit from 25.0% to 35.7%. (Commentator 5)

Response: The amendments to § 129.52 delete the word “clear” from Table I, Category 11(a). The regulated category will be “topcoats and enamels” for § 129.52 and “topcoats” for §§ 129.101-129.107.

36. Comment: The wood cabinet and furniture finishing surface coating category “washcoat” contained in existing § 129.52, Table I, Category 11, is a rarely used material with a solids limit of 6.5% minimum. This standard is not providing any effective emission reduction. The EPA found that it was not necessary to create a minimum solids limit for this category because it is not a film-building material and the addition of solids will not result in decreased material consumption. This restriction does, however, place additional burdens on manufacturers that are unnecessary and violate Executive Order 1996-1. (Commentator 5)

Response: The surface coating processes proposed rulemaking is consistent with the requirements of Section 4.2(f) of the Pennsylvania Air Pollution Control Act and the principles of Executive Order 1996-1. The Department has enforced the requirements of § 129.52 for wood furniture manufacturing operations since May 7, 1988. Most affected facilities are in compliance with the existing requirements. The “washcoats” category is also necessary for purposes of averaging of VOC emissions under §§ 129.101- 129.107.

37. Comment: Most final repair coats are exempted from VOC limits under § 129.52(h). Most of the remaining repair coatings included in the wood cabinet and furniture finishing surface coating category “final repair coat” contained in existing § 129.52, Table I, Category 11 are just re-applications of previously applied coatings and are regulated by presumptive RACT as the production coatings. (Commentator 5)

Response: If a surface coater can not meet an applicable limit, there are several compliance options available. Under § 129.52 (h) the final form regulations allow an exemption for a coating used exclusively for determining product quality and commercial acceptance, touch-up and repair, and other small quantity uses. As proposed in § 129.101(e), facilities that are subject to § 129.52 and §§ 129.101-129.107 would only have to comply with the more stringent emissions limitation for a coating category included in both sets of regulations.

38. Comment: Presumptive RACT addresses the requirement for the wood cabinet and furniture finishing surface coating category “opaque ground coats and enamels” contained in existing § 129.52, Table I, Category 11 by regulating these coatings as topcoats and increasing the minimum solids limit from 25.0% to 35.7%. (Commentator 5)

Response: The Department has deleted the term “opaque ground coats and enamels” in Table I, Category 11(d) and replaced this category with the term “basecoats.” The “enamels” category is included with Table I, Category 11(a) as “topcoats and enamels.” For purposes of § 129.52 and §§ 129.101- 129.107, “enamels” are regulated as “topcoats.” Facilities that are subject to § 129.52 and §§ 129.101-129.107 would only have to comply with the more stringent emissions limitation or applicable requirement included in both sets of regulations.

39. Comment: The wood cabinet and furniture finishing surface coating category “all other coatings” contained in existing § 129.52, Table I, Category 11 consists of cosmetic specialty coatings making up a very small quantity of emissions and are limited to only 6.5% solids minimum. The EPA found that it was not necessary to create a minimum solids limit for this category because it is not a film-building material and the addition of solids will not result in decreased material consumption. This restriction does, however, place additional burdens on manufacturers that are unnecessary and violate Executive Order 1996-1. (Commentator 5)

Response: The surface coating processes rulemaking is consistent with the requirements of Section 4.2(f) of the Pennsylvania Air Pollution Control Act and the principles of Executive Order 1996-1. The final rulemaking replaces the term “other coatings” with a new term and definition, “cosmetic specialty coatings.” The category “all other coatings” in § 129.52, Table I, Category 11(e) has been changed to “cosmetic specialty coatings.” If the Department deletes the requirements of § 129.52 for wood furniture manufacturing operations, facilities with actual VOC emissions greater than 2.7 tons per year, but potential VOC emissions of less than 25 tons per year would no longer be regulated. Such an approach circumvents Pennsylvania’s obligation to achieve and maintain compliance with the NAAQS for ozone.

40. Comment: Presumptive RACT addresses the requirement for the wood cabinet and furniture finishing surface coating category “clear sealers” contained in existing § 129.52, Table I, Category 11 by increasing the minimum solids limit from 20.4% to 34.5%. (Commentator 5)

Response: The term “clear sealers” has been deleted, the definition of “sealers” added. The word “clear” has been deleted from Table I, Category 11(f) to be consistent with §§ 129.101-129.107. Any facility that is subject to both § 129.52 and §§ 129.101-129.107 need only

demonstrate compliance with the more stringent emissions limitation or other applicable requirement as specified in § 129.101(e).

41. Comment: The application equipment requirements in § 129.52(f) are substantially the same as those proposed in § 129.103(g). There will be no reduction in the level of control by applying only the presumptive RACT regulations. (Commentator 5)

Response: In certain situations, there will be no presumptive RACT requirements for processes that are currently regulated under § 129.52. If the Department deletes the requirements of § 129.52 for wood furniture manufacturing operations, facilities with actual VOC emissions greater than 2.7 tons per year, but potential VOC emissions that are less than 25 tons per year, would no longer be subject to regulation. Consequently, there would be an increase in VOC emissions to the atmosphere from facilities that are currently in compliance with the existing requirements for surface coating processes.

42. Comment: Compliance with the two sets of regulations will be confusing for manufacturers because of the many subtle differences between them. Examples of these subtle differences are the very different definitions of the terms "clear topcoat," "topcoat," "final repair coat," and "touch up and repair coatings" found in § 129.52 and §§ 129.101-129.107. (Commentator 5)

Response: The Department has deleted the terms "clear topcoat" and replaced it in § 129.52, Table I, Category 11 with the term "topcoat." Section 129.101(e) requires a facility subject to § 129.52 and §§ 129.101-129.107 to comply with the more stringent emissions limitation or applicable requirement. For purposes of § 129.52 the Department will retain the "final repair coat" category. The VOC content limits are intended to apply only to "topcoat" materials.

43. Comment: Compliance with the two sets of regulations will be confusing for manufacturers because of the many subtle differences between the regulations. There are subtle but important differences in the application equipment requirements and the recordkeeping requirements. (Commentator 5)

Response: The surface coating processes proposed rulemaking is consistent with the requirements of Section 4.2(f) of the Pennsylvania Air Pollution Control Act and the principles of Executive Order 1996-1. Whenever a surface coating process is subject to the presumptive RACT requirements in §§ 129.101-129.107 and the requirements of § 129.52, the facility must demonstrate compliance with the more stringent requirement for application equipment.

The existing recordkeeping requirement in § 129.52(c) requires that records be maintained for two years. In the final rulemaking the existing recordkeeping provision in subsection (c) will be re-codified at § 129.52(g). This 2-year recordkeeping requirement should be retained for non-major sources. However, EPA's model rule for wood furniture manufacturing operations requires that records be maintained for 5 years. Additionally, MACT and Title V sources must also retain records for at least 5 years. All major facilities must comply with the 5-year recordkeeping requirements for Title V sources. See 25 *Pa. Code* § 127.511(b)(2).

EPA's model rule specifies that "the owner or operator of an affected source shall maintain records for a minimum of five years." Accordingly, § 129.105(a) requires that records be maintained for at least five (5) years. Any facility subject to § 129.52 and §§ 129.101-129.107 will comply with the more stringent 5-year recordkeeping requirement.

44. Comment: The limit for "all other coatings" in Table I (14.3 lb VOC/lb solids), assuming it is intended to apply to certain stains, does not appear to be technically feasible, and thus, is not RACT. There is a consensus in industry that as applied to stains, the proposed VOC limit of 14.3 lb VOC/lb solids is not technologically achievable. Accordingly, at a minimum, nongrain raising stains and dye-type stains should be excluded from the coverage of this "all other" category if the Commonwealth were to implement both sets of limits as proposed. (Commentator 12)

Response: The VOC emission limits in § 129.52, Table 1, category 11 (e) are not RACT limits. The Department has enforced the requirements in § 129.52 for wood furniture manufacturing operations since May 7, 1988. It should be noted that the majority of the facilities regulated under § 129.52 are in compliance with the existing requirements. If the coating does not meet the VOC limits in § 129.52, the surface coater can either request an exemption under § 129.52 or use an alternative compliance method incorporated into a plan approval or operating permit in accordance with § 129.51(a)(6).

45. Comment: In the case of stains and other categories of coatings not regulated by the CTG, the "Reg-Neg" Committee engaged in extensive discussions concerning each of these categories and decided not to address the omitted categories through the imposition of VOC limits. Rather, other emissions reduction strategies, such as improved transfer efficiency and better "housekeeping" measures were recommended for reducing VOC emissions. (Commentator 12)

Response: The work practice standards in §§ 129.101-129.107 are consistent with the CTG and EPA's model rule. The Department has regulated VOC emissions from surface coating processes for wood furniture manufacturing operations since May 7, 1988 and will continue to enforce these existing standards. The entire Commonwealth is included in the Ozone Transport Region established by operation of law under Section 184 of the Clean Air Act Amendments of 1990. Therefore, there is a compelling Pennsylvania interest in retaining the existing VOC emission limits, achieving and maintaining the NAAQS for ozone. In the final rulemaking, §129.101(e) allows any facility that is subject to §129.52 and §§ 129.101-129.107 to only demonstrate compliance with the more stringent emissions limitation or other applicable requirement. This approach allows the Department to streamline applicable requirements for affected facilities.

Case by Case RACT

46. Comment: Companies already subject to case-by-case RACT should be given an opportunity to convert to presumptive RACT. This would ease the cost and overall burden of the regulation for manufacturers with no penalty to the environment. (Commentators 3, 9, 14)

Response: The Department currently does not have a federally enforceable presumptive RACT regulation. The facilities that are currently subject to §§ 129.91-129.95 and underlying permit terms and conditions must continue to comply with their Department-approved case-by-case RACT determinations. Should the EQB promulgate a presumptive RACT regulation prior to a company receiving EPA-approval of its case-by-case RACT determination as a SIP revision, the SIP submittal will be withdrawn and the permit modified to reflect the newly adopted presumptive RACT requirements. Facilities that have case-by-case RACT determinations approved by EPA as revisions to the SIP prior to promulgation of a presumptive RACT regulation must continue to comply with their SIP-approved case-by-case RACT determinations and implementing operating permits.

47. Comment: Case-by-case RACT determinations impose many additional and unnecessarily prescriptive requirements on Pennsylvania manufacturers than would be incurred under presumptive RACT. This excessive regulation places Pennsylvania businesses at a severe competitive disadvantage with manufacturers in other states. (Commentators 5, 14)

Response: Case-by-case RACT determinations were developed using site-specific analysis provided by each affected facility pursuant to 25 *Pa. Code* § 129.92 (relating to RACT proposals). Therefore, a facility's case-by-case RACT determination should not include unnecessary and burdensome requirements because the case-by-case RACT requirements were determined to be economically and technically cost effective. Any costs incurred due to implementing the case-by-case RACT should have been factored into the economic and technical feasibility studies conducted prior to proposing the RACT plan.

48. Comment: The Preamble appears to state that if the presumptive RACT regulations are approved prior to a company's case-by-case RACT plan being approved by EPA as a SIP revision, the presumptive RACT regulations will apply and the case-by-case RACT plan will not apply. (Commentators 5, 14)

Response: The language in the Preamble for the proposed rulemaking is consistent with proposed subsections (b) and (c) of § 129.101. Should the Board promulgate the presumptive RACT final-form regulations for wood furniture manufacturing operations prior to EPA's approval of a company's case-by-case RACT determination as a SIP revision, the company would be regulated only under the state's presumptive RACT regulations. All case-by-case RACT determinations that are not approved as SIP revisions by EPA would be withdrawn and the operating permits modified by the Department.

49. Comment: Neither the Preamble nor the regulations address the issue of the existence of state-only case-by-case RACT permits. These permits are being issued prior to case-by-case RACT plans being approved by EPA as SIP revisions. The Preamble should address how these state-only case-by-case RACT permits can be rescinded. Otherwise it appears that a manufacturer could be subject to both presumptive RACT and case-by-case RACT. This is clearly not the intent of the Department or the EPA. (Commentators 5, 14)

Response: Wood furniture manufacturers that currently do not have case-by-case RACT determinations approved by EPA as SIP revisions but are currently operating under state-only operating permits must continue to comply with the state-only operating permit. Should the Board adopt the presumptive RACT requirements prior to a company receiving SIP-approval of its case-by-case RACT determination, the company would be subject to the state's presumptive RACT requirements and the operating permit revised accordingly. Where compliance with the presumptive RACT provisions will require changes to a company's state-only operating permit, the permit will be revised to reflect the newly adopted requirements.

50. Comment: No new state-only case-by-case RACT permits should be issued for wood furniture manufacturing operations until the presumptive RACT regulations are promulgated. Even if a mechanism is established to rescind permits, a considerable amount of effort will be wasted in the interim. (Commentator 5)

Response: Affected sources should have complied with the case-by-case RACT requirements as "expeditiously as practicable but no later than May 31, 1995." See 42 U.S.C. § 7511a(b)(2). Therefore, the Department has submitted all case-by-case RACT determinations for wood furniture manufacturing operations to EPA for approval as SIP revisions. In most cases, affected facilities included all or a significant portion of the presumptive requirements in their submittals. In order to receive SIP approval of Pennsylvania's RACT regulations in §§ 129.91-129.95, EPA required the Department to submit by April 22, 1999, all case-by-case RACT determinations known to the Department. Consequently, the case-by-case RACT determinations were reviewed and state-only permits containing case-by-case RACT provisions were submitted to EPA to satisfy the Commonwealth's obligations under Section 182(b)(2) of the Clean Air Act.

51. Comment: The proposed regulations are silent on how the Department's case-by-case RACT rules (§§ 129.91-129.95) will be affected by the adoption of presumptive RACT. Sections 129.91-129.95 should be amended to reflect the adoption of presumptive RACT, in place of case-by-case RACT, for those facilities subject to presumptive RACT. (Commentator 14)

Response: The final rulemaking includes revisions to § 129.91(a) which clarify that the existing RACT requirements do not apply to major VOC-emitting facilities for which requirements have been established in § 129.52, Table I, Category 11 and §§ 129.101-129.107. Consequently, the case-by-case RACT provisions would no longer apply to wood furniture manufacturing facilities subject to regulation under the presumptive RACT requirements in §§ 129.101-129.107 if their case-by-case determinations have not been SIP-approved.

52. Comment: Section 129.52(a) should be amended to reflect the adoption of presumptive RACT, in place of case-by-case RACT, for those facilities subject to presumptive RACT. (Commentator 14)

Response: Amendments to § 129.91 (relating to control of major sources of NOx and VOCs) should address this concern. Section 129.52(a) applies to facilities that have actual emissions of VOC greater than 3 pounds per hour, 15 pounds per day, or 2.7 tons per year during any calendar year since January 1, 1987. Section 129.52 is the presumptive RACT for Table I, Categories 1 through 10. The requirements in § 129.52, Table I, Category 11 have been the minimum state regulatory requirements for wood cabinet and furniture finishing since May 7, 1988, for facilities having actual VOC emissions greater than 2.7 tons per year. The proposed presumptive RACT requirements for wood furniture manufacturing operations apply only to facilities with actual or potential VOC emissions of 25 tons or more per year. The presumptive RACT requirements for wood furniture manufacturing operations were, therefore, developed to satisfy another applicable requirement for the control of VOC emissions.

53. Comment: Section 129.101 should be amended to reflect the adoption of presumptive RACT, in place of case-by-case RACT, for those facilities subject to presumptive RACT. (Commentator 14)

Response: The final rulemaking amends § 129.91 to explicitly provide that facilities subject to the newly adopted presumptive RACT requirements are no longer subject to the case-by-case provisions for major VOC-emitting facilities. Subsections (b) and (c) in § 129.101 specify that the owner or operator of a facility subject to § 129.101(a) shall comply with the requirements of §§ 129.101-129.107, except for those facilities that have RACT determinations approved by the EPA as revisions to the SIP prior to the effective date of adoption of this proposed rulemaking. After adoption of the final rulemaking, the Department will withdraw any case-by-case RACT determination if the submittal has not been approved as a SIP revision.

Small Quantity Exemptions

54. Comment: The proposed exemption from VOC content limitations for small quantities of coatings used for determination of product quality and commercial acceptance is excellent in principle. However, the proposed exemptions of 50 gallons for one coating and 200 gallons for all coatings combined at the facility per year are not realistic numbers for large surface coating operations. (Commentator 2)

Response: The final rulemaking retains the amounts of 50 gallons for one coating and 200 gallons for all coatings combined as an appropriate exemption to ensure that there will be no adverse air quality impacts from activities pertaining to product quality and commercial acceptance.

55. Comment: Wood furniture facilities continuously evaluate 1 quart to 5 gallons of a coating for determination of product quality e.g. correct color, gloss, appearance, etc. To obtain written approval prior to use of each of these small quantities as exempted coatings is not practical. (Commentator 2)

Response: The final rulemaking retains the requirement to notify the Department and receive written approval prior to using small quantities of certain coatings that may qualify for exemption under § 129.52 (h) and § 129.101(f). Advance notification to the Department and prior written approval for the use of small quantities of coatings as exempt coatings is necessary to ensure that there will be no adverse air quality impacts from product quality determinations and commercial acceptance activities.

Table IV Emission Limits

56. Comment: Table IV does not present the emission limits clearly. Facility owners or operators may comply by using topcoats with a VOC content no greater than 0.8 lb VOC/lb solids or topcoats with a VOC content no greater than 1.8 and sealers with a VOC content no greater than 1.9 (or acid cured alkyd amino based topcoats and sealers with VOC contents no greater than 2.0 and 2.3, respectively). This is not clearly presented in the table. Either the table needs to be modified to clarify that these are “either/or options,” or additional language needs to be added to the text to indicate this distinction. (Commentators 3, 5)

Response: The final-form regulations were revised to address this concern. The revisions to Table IV specify that the owner or operator of the facility can either apply waterborne topcoats or a combination of sealers and topcoats and strippable spray booth coatings with a VOC content equal to or less than the standards specified in Table IV. Consequently, compliance can be demonstrated by using either waterborne topcoats with a VOC content no greater than 0.8 lb VOC/lb solids or a combination of topcoats and sealers that meet the requirements of high solids coating systems or acid-cured alkyd amino systems. Facilities that use strippable spray booth coatings must use strippable spray booth coatings with a VOC content no greater than 0.8 lb VOC/lb solids.

Acid Cured Sealers and Topcoats

57. Comment: We suggest that the term “vinyl” be deleted from the coating systems listed in § 129.102(1), Table IV, Category 3. Acid cured sealers and topcoats are primarily based on what is known as alkyd amino technology. Resins such as vinyl or nitrocellulose are sometimes added to the alkyd amino base to help dry the surface of these otherwise slow systems. Specifying the term “vinyl” severely limits the resin choices for modifying the alkyd amino base. The solvents needed to dissolve the vinyl in the coating system may be more active, higher VOC or HAPs containing solvents. Modifying resins other than vinyls can and are used to produce acid-cured

alkyd amino systems at equal or lower pounds of VOC per pound of coating solids than are produced with vinyls. (Commentator 7)

Response: The Department concurs with this recommendation and has deleted the term “vinyl” from the acid-cured alkyd amino systems category specified in § 129.102(1), Table IV, Category 3.

Calculation of VOC Content

58. Comment: It is not clear how the Department proposes to calculate the VOC content of wood furniture coatings that contain exempt compounds or water. (Commentator 2)

Response: The VOC content of wood furniture coatings will be calculated as pounds of VOC per pound of coating solids using the equation in § 129.52(b)(1)(iii). This equation subtracts the weight percent of exempt compounds and water from the weight percent of total volatiles.

VOC Limits for Control Devices

59. Comment: The language in § 129.102(3) establishing the limits for facilities that use control devices is not correct. This section now states that a facility using controls should achieve a reduction equivalent to 0.8 lb VOC/lb solids for topcoats and 1.9 lb VOC/lb solids for sealers. This section should read, “Using a control system that will achieve a reduction in emissions equivalent to 0.8 lb VOC/lb solids for topcoats or 1.8 lb VOC/lb solids for topcoats and 1.9 lb VOC/lb solids for sealers.” The use of a control system should bring emissions down to the level specified in Table IV. Anyone forced to use a control system to achieve compliance will incur a great expense to do so and should not be penalized further by tighter limits. (Commentators 3, 5, 8, 14)

Response: Changes to § 129.102(3) correct the omission of the “1.8 lb VOC/lb solids for topcoats.” Section 129.102(3) has been revised as follows: “Using a control system that will achieve a reduction in emissions equivalent to 0.8 lb VOC/lb solids for topcoats or 1.8 lb VOC/lb solids for topcoats and 1.9 lb VOC/lb solids for sealers.”

Cleaning and Washoff Solvent Accounting Systems

60. Comment: In the discussion about § 129.103(d), it would be helpful to explain that the sensitive data generated by the cleaning and washoff solvent accounting system is not required to be submitted to the Department in any type of report. There is concern in the regulated community that this data could be made publicly available. (Commentator 5)

Response: The cleaning and washoff solvent accounting system requirements were revised in the final rulemaking. Section 13.2 of the Air Pollution Control Act authorizes the Department to treat certain information obtained by the Department as confidential information if a person shows cause as to why the records, report, data or information should be considered confidential by the Department. Under no circumstances, however, is emissions data kept confidential. See 35 P.S. § 4013.2. Although data obtained from records for the cleaning and washoff solvent accounting system would not routinely be submitted to the Department, this data could be obtained during inspections or for enforcement purposes. If the “sensitive data” obtained by the Department is emissions data, it cannot be considered confidential information.

Spray Booth Cleaning Comments

61. Comment: The explanation of the solvent content limit for spray booth cleaning appears to be incorrect. The Preamble states that strippable booth coating is limited to 8% by weight of solvent. Section 129.103(e) of the proposed rulemaking applies only to cleaning materials. In Table IV, strippable booth coating is limited to 0.8 lb VOC/lb solid. (Commentator 5)

Response: The Preamble for the final-form regulations has been revised. The cleaning materials used to clean spray booth components other than conveyors, continuous coaters and their enclosures, or metal filters can be no more than 8% by weight of VOC. If the spray booth is being refurbished no more than 1 gallon of organic solvent can be used to prepare spray booth walls prior to installing new strippable spray booth coating. The strippable spray booth coating can contain no more than 0.8 lb VOC/lb solid.

Application Equipment Requirements and Conventional Air Spray Guns

62. Comment: The requirements in § 129.52(f) that limit the use of conventional air spray guns are essentially the same as the requirements of § 129.103(g). However, § 129.103(g) contains a number of additional exemptions. These exemptions are found in the federal CTG, are necessary, and have been deemed appropriate by EPA. Wood facilities must satisfy the more stringent requirements. If these exemptions are not included in § 129.52(f), a violation of Executive Order 1996-1, Sections 1.371 (5) and (9) will result. To avoid this, we suggest that language be added to § 129.103(g) to indicate that this section supersedes the application equipment requirements of § 129.52(f), or that the application requirements found in existing § 129.52(f) be amended to be consistent with the requirements found in proposed § 129.103(g). (Commentators 3, 5)

Response: The surface coating processes proposed rulemaking is consistent with the principles of Executive Order 1996-1 which provides, in relevant part, that “if federal regulations exist, regulations of the Commonwealth may not exceed federal standards unless justified by a compelling and articulable Pennsylvania interest or required by State law.” The existing provisions in § 129.52, including subsection (f), were adopted to “help reduce emissions of VOC

which is necessary to meet the ambient air quality standards..." See 18 *Pa. B.* 2098 (May 7, 1988). The entire Commonwealth is included in the Ozone Transport Region established under Section 184 of the Clean Air Act. 42 U.S.C §7511(c). Therefore, retention of § 129.52(f) is justified by a compelling Pennsylvania interest, achieving and maintaining the NAAQS for ozone.

In addition, retention of § 129.52(f) is not contrary to applicable requirements of Pennsylvania's Air Pollution Control Act (APCA). Section 4.2(f) provides that the Board may retain existing requirements in § 129.52(f) if the regulations were adopted prior to July 9, 1992. See 35 P.S. § 4004.2(f). The Board adopted the existing wood cabinet and furniture finishing requirements in § 129.52(f) on May 7, 1988. These provisions are currently being met by most facilities and will continue to apply to the larger wood furniture manufacturing operations. Whenever a surface coating process is subject to the presumptive RACT requirements and § 129.52(f), the facility must demonstrate compliance with the more stringent requirement.

63. Comment: The explanation in the Preamble for the acceptable use of air spray guns for touch up and repair contradicts the proposed rulemaking § 129.103(g). If the sixth sentence of the third paragraph of the Preamble discussion on page 1302, left-hand column, is modified to read "The coatings **may** also be applied ..." this contradiction will be resolved. (Commentator's emphasis) (Commentators 5, 8)

Response: The Preamble for the final rulemaking has been revised to read as follows: "The coatings may also be applied after the stain ..."

Recordkeeping Requirements

64. Comment: Section 129.52(c) requires that a facility must maintain records sufficient to demonstrate compliance with this section and lists the minimum records that must be kept in order to achieve compliance. For a manufacturer which uses compliant coatings as supplied and has accurate purchase and issue records, the requirement to keep daily records does not aid in the demonstration of compliance. The coating used already complies with all other applicable sections of this rule, and emissions on an annual (or quarterly) basis are more accurately determined using the purchase and/or issue records. We suggest that a provision for approval of alternative recordkeeping requirements be implemented and propose the following language for a § 129.52(c)(4):

"Surface coating processes which solely use compliant coatings as supplied by the coating manufacturer may propose to the Department alternate records to be kept which will demonstrate compliance with this section, other than those specified above. The Department may approve the request if it is demonstrated to the Department's satisfaction that the alternate records are at least as effective in documenting that the source is

in compliance with this section, and that accurate records are kept for emission statement purposes.” (Commentator 6)

Response: The final rulemaking retains the daily recordkeeping requirement for records pertaining to each coating, thinner and other component used in surface coating processes. This information is needed for compliance demonstration purposes and to ensure that the provisions in § 129.52 are consistent with the federal CTGs for the different surface coating process categories.

Request for Comments - Question Two – MACT Reporting Requirements

The Department specifically requested comments on whether the Department should adopt the reporting requirements in 40 CFR §§ 63.7-63.10. These general reporting provisions specify time frames for reporting performance test results, monitoring parameter values and excess performance test results. Under EPA’s model rule for wood furniture manufacturing operations, the general MACT reporting requirements are an optional State presumptive RACT program component.

65. Comment: Relative to question two posed by the Department in paragraph J of the Preamble of the proposed rulemaking, we endorse the adoption of the MACT reporting requirements that were developed during the EPA Regulatory Negotiation. (Commentator 1)

Response: The Department has determined that instituting the MACT reporting requirements for major wood furniture manufacturing operations reporting VOC emissions under the presumptive RACT rule would be duplicative if the facility is already subject to the MACT reporting requirements. When issuing Title V permits all applicable reporting requirements will be streamlined and the most stringent requirement included as a permit condition. For example, if the MACT reporting requirements are more stringent than other applicable reporting provisions, the permit will contain the MACT reporting requirements and explicitly state that the streamlined permit condition assures compliance with other applicable reporting requirements.

66. Comment: These requirements are substantially the same as those found in the EPA MACT standards at 40 CFR § 63.807. We feel that these are reasonable and appropriate. (Commentator 5)

Response: The Department agrees and appreciates industry support of the proposed rulemaking.

67. Comment: Relative to question two posed in the Preamble to the proposed rulemaking, we suggest that §§ 129.101-129.107 include the MACT reporting requirements. Having both components as part of one rule minimizes confusion about how the requirements apply. (Commentator 1)

Response: The Department has determined that instituting the MACT reporting requirements for major source wood furniture manufacturing operations' VOC reporting purposes will be duplicative of these facilities' MACT reporting. The proposed recordkeeping and reporting requirements should be sufficient for non-major sources for VOC purposes. Where appropriate, the Department will allow a company to submit reports under the MACT reporting requirements to satisfy the presumptive RACT reporting requirements. If HAP emissions exceed the threshold for 40 CFR Part 63, Subpart JJ, the owner or operator must also satisfy those requirements.

68. Comment: If the reporting requirements found at 40 CFR §§ 63.7-63.10 are adopted, the best way to do so is to incorporate 40 CFR §§ 63.7-63.10 by reference. (Commentator 14)

Response: The Department has determined that instituting the MACT reporting requirements for major source wood furniture manufacturing operations' VOC reporting purposes will be duplicative if a facility is already subject to the MACT reporting requirements. The Department believes that the proposed recordkeeping and reporting requirements will be sufficient for the reporting of VOC emissions by non-major sources and will accept reports submitted by MACT-affected sources, as appropriate.

69. Comment: The Department should not adopt the reporting requirements found in 40 CFR §§ 63.7 – 63.10. These standards should be reserved until the Department develops its own MACT requirements. (Commentator 8)

Response: EPA's MACT regulations are incorporated into Pennsylvania's permitting program by operation of law. Section 6.6(a) of the Air Pollution Control Act provides that "the regulations establishing the performance or emission standards promulgated under Section 112 of the Clean Air Act are incorporated by reference into the department's permitting program." See *25 Pa. Code* § 4006.6(a). Therefore, the Board will not adopt separate MACT reporting requirements because the federal MACT requirements are already incorporated by reference in their entirety in *25 Pa. Code* § 127.35 (relating to maximum achievable control technology standards for hazardous air pollutants).

70. Comment: The proposed reporting requirements in §§ 129.105 and 129.106 should be amended to be consistent with the federal reporting requirements. (Commentator 14)

Response: The proposed requirements in §§ 129.105 and 129.106 are consistent with EPA's model rule for wood furniture manufacturing operations. These reporting requirements include initial compliance demonstration, semiannual compliance reports and compliance certification.

Facility Reporting Dates

71. Comment: We suggest that the initial compliance report date should coincide with the compliance dates for EPA MACT reporting to limit unnecessary reporting burdens. If facility VOC semiannual compliance reporting dates are inconsistent with NESHAP reporting dates, we

suggest that those facilities be allowed to work with the Department to adjust the dates so that the facility is not filing four reports a year instead of two. (Commentators 3, 8)

Response: When possible, the submittal date for the initial compliance reports will be identical for the presumptive RACT and MACT reporting requirements. If the information is already being submitted to the Department to satisfy other applicable requirements, the owner/operator of an affected facility will not have to provide additional submittals of the same information. For Title V facilities, the Department will streamline reporting requirements to avoid duplication of applicable reporting requirements.



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March 28, 2000

The Secretary

717-787-2814

Mr. Robert E. Nyce
Executive Director
Independent Regulatory Review Commission
14th Floor, Harristown II
Harrisburg, PA 17101

RE: Final Rulemaking – Surface Coating Processes and Wood Furniture Manufacturing Operations
(RBI #4) (#7-339)

Dear Bob:

Pursuant to Section 5.1(a) of the Regulatory Review Act, enclosed is a resubmission of a final-form regulation for review by the Commission. This rulemaking was approved by the Environmental Quality Board (EQB) for final rulemaking on December 21, 1999, with further amendments approved by the EQB on March 21, 2000.

This final-form rulemaking was originally submitted for Commission review on January 19, 2000; however, the Department withdrew it on February 8 to address concerns noted by the Commission on February 7. The concerns related to expansion of the applicability of the VOC limit in Section 129.52, Table I, category 11(c), an amendment that resulted at final rulemaking when the Department changed 11(c) from "final repair coat" to "coatings used for touch-up and repair." This change would have inadvertently required stains to be subject to a more stringent emission limitation. To resolve the concern, the Department amended Sections 121.1, 129.52(f), and Table I, and the EQB adopted the amendments on March 21. If approved, these amendments will be submitted to EPA as a State Implementation Plan (SIP) revision.

The Department will provide the Commission with any assistance required to facilitate a thorough review of this final-form regulation. Section 5.1(e) of the Act provides that the Commission shall, within ten days after the expiration of the committee review period, approve or disapprove the final-form regulation.

For additional information, please contact Sharon Freeman, Regulatory Coordinator, at 783-1303.

Sincerely,

A handwritten signature in black ink, appearing to read "James M. Seif".

James M. Seif
Secretary

Enclosure

Recycled Paper



**TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO THE
REGULATORY REVIEW ACT**


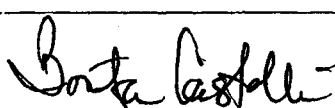
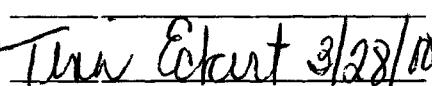
I.D. NUMBER: 7-339
SUBJECT: Surface Coating Processes (RBI #4)
AGENCY: DEPARTMENT OF ENVIRONMENTAL PROTECTION

TYPE OF REGULATION

- Proposed Regulation
- X 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

RECEIVED
2000 MAR 28 AM 11:11
INDEPENDENT REGULATORY REVIEW COMMISSION

FILING OF REGULATION

DATE	SIGNATURE	DESIGNATION
3/20/00		Wesley HOUSE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
		3-20-00 White SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
		3/28/00 IERC INDEPENDENT REGULATORY REVIEW COMMISSION
		ATTORNEY GENERAL
		LEGISLATIVE REFERENCE BUREAU

March 23, 2000

