

Regulatory Analysis Form

(Completed by Promulgating Agency)



IRRC

Independent Regulatory Review Commission

SECTION I: PROFILE

(1) Agency:

Environmental Protection

(2) Agency Number:

Identification Number: #7-447

IRRC Number: 2801

(3) Short Title:

Flat Wood Paneling Surface Coating Processes

(4) PA Code Cite:

25 Pa. Code Chapters 121 and 129

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

Primary Contact: Michele Tate, 783-8727

Secondary Contact: Kelly J. Heffner, 783-8727

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

Environmental Quality Board

PO Box 8477

Harrisburg, PA 17105-8477

regcomments@state.pa.us

(All Comments will appear on IRRC'S website)

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

☒ Proposed Regulation

☐ Final Regulation

☐ Final Omitted Regulation

☐ Emergency Certification Regulation;

☐ Certification by the Governor

☐ Certification by the Attorney General

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

The proposed rulemaking would amend 25 *Pa. Code* Chapter 129 (relating to standards for sources) to limit emissions of volatile organic compounds (VOCs) from the use and application of inks, coatings and adhesives, and the use of cleaning materials, in flat wood paneling surface coating processes. The proposal would add 25 *Pa. Code* § 129.52c (relating to control of VOC emissions from flat wood paneling surface coating processes) and amend 25 *Pa. Code* § 129.51 (relating to general). The proposed rulemaking would also amend 25 *Pa. Code* § 121.1 (relating to definitions) to add terms supporting proposed § 129.52c. The proposed rulemaking is required under the Clean Air Act (CAA) requirements that states regulate sources covered by Control Techniques Guidelines (CTGs) issued by the U.S. Environmental Protection Agency (EPA), is reasonably necessary to attain and maintain the health-based 8-hour ozone National Ambient Air Quality Standard (NAAQS) in this Commonwealth, and when final will be submitted to the EPA as a revision to the State Implementation Plan (SIP).

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

- A. The date by which the agency must receive public comments: February 2010
- B. The date or dates on which public meetings or hearings will be held: January 2010
- C. The expected date of promulgation of the proposed regulation as a final-form regulation: 4th Quarter 2010
- D. The expected effective date of the final-form regulation: 1st Quarter 2011
- E. The date by which compliance with the final-form regulation will be required: January 1, 2011
(as currently proposed in Annex A)
- F. The date by which required permits, licenses or other approvals must be obtained: N/A

SECTION II: STATEMENT OF NEED

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

This regulation will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulation effectively fulfills the goals for which it was intended.

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

Statutory authority for this action comes from section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth and from section 5(a)(8) of the APCA (35 P.S. § 4005(a)(8)), which grants the Board the authority to adopt rules and regulations designed to implement the provisions of the Clean Air Act (CAA).

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(12) Is the regulation mandated by any federal or state law or court order, or federal regulation? Are there any relevant state or federal court decisions? If yes, cite the specific law, case or regulation as well as any deadlines for action.

Yes. State regulations to control VOC emissions from flat wood paneling surface coating operations are required under Federal law and will be reviewed by the EPA for whether they meet the “reasonably available control technology” (RACT) requirements of the CAA and its implementing regulations. *Consumer and Commercial Products, Group II; Control Techniques Guidelines in lieu of Regulations for Flexible Packaging Printing Materials, Lithographic Printing Materials, Letterpress Printing Materials, Industrial Cleaning Solvents, and Flat Wood Paneling Coatings*, 71 FR 58745, 58747 (October 5, 2006).

Section 183(e) of the CAA directs the EPA to list for regulation those categories of products that account for at least 80% of the VOC emissions from consumer and commercial products in ozone nonattainment areas. 42 U.S.C. § 7511b(e). Section 183(e)(3)(C) of the CAA further provides that the EPA may issue a CTG document in place of a National regulation for a product category where the EPA determines that the CTG will be “substantially as effective as regulations” in reducing emissions of VOC in ozone nonattainment areas. 42 U.S.C. § 7511b(e)(3)(C). The CTG provides states with the EPA’s recommendation of what constitutes RACT for the covered category. States can use the recommendations provided in the CTG to inform their own determination as to what constitutes RACT for VOC emissions from the covered category. State air pollution control agencies are free to implement other technically-sound approaches that are consistent with the CAA requirements and the EPA’s implementing regulations or guidelines.

Section 172(c)(1) of the CAA provides that SIPs for nonattainment areas must include “reasonably available control measures,” including RACT, for sources of emissions. 42 U.S.C. § 7502(c)(1). Section 182(b)(2) of the CAA provides that for moderate ozone nonattainment areas, states must revise their SIPs to include RACT for sources of VOC emissions covered by a CTG document issued by the EPA prior to the area’s date of attainment. 42 U.S.C. § 7511a(b)(2). More importantly, section 184(b)(1)(B) of the CAA requires that states in the Ozone Transport Region (OTR), including Pennsylvania, submit a SIP revision requiring implementation of RACT for all sources of VOC emissions in the state covered by a specific CTG. 42 U.S.C. § 7511c(b)(1)(B).

In 1995, the EPA listed flat wood paneling coatings on its section 183(e) list and, in 2006, issued a CTG for flat wood paneling coatings. 60 FR 15264 (March 23, 1995) and 71 FR 58745 (October 5, 2006). In the 2006 notice, the EPA determined that the CTG would be substantially as effective as a National regulation in reducing VOC emissions from this product category in ozone nonattainment areas. 71 FR at p. 58745.

The Department has reviewed the recommendations included in the 2006 CTG for flat wood paneling coatings for their applicability to the ozone reduction measures necessary for this Commonwealth. The Department has determined that the measures provided in the CTG for flat wood paneling coatings are appropriate to be implemented in this Commonwealth as RACT for this category.

Section 182(b)(2) of the CAA requires that a CTG issued by the EPA after November 15, 1990, include the date by which states subject to section 182(b) must submit SIP revisions in response to the CTG. 42 U.S.C. § 7511a(b)(2). The EPA issued the flat wood paneling coatings CTG on September 29, 2006.

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The EPA provided a 1-year period for the required SIP submittal, making SIP revisions for the flat wood paneling coatings CTG due by September 29, 2007.

The Department has missed this deadline and has negotiated with the EPA to submit the SIP revision for this CTG category by December 31, 2010. This negotiated submittal date does not, however, relieve the Commonwealth of the consequences of not meeting the required due date, including a potential "finding of failure to submit" a SIP revision.

If the EPA Administrator finds that a state has failed to submit an acceptable implementation plan or has failed to implement the requirements of an approved plan, sanctions will be imposed, though sanctions cannot be imposed until 18 months after the Administrator makes the determination, and sanctions cannot be imposed if a deficiency has been corrected within the 18-month period.

Section 179 of the CAA authorizes the EPA to use two types of sanctions: 1) withholding of certain Federal highway funds; and 2) imposing what are called "2:1 offsets" on new or modified sources of emissions. 42 U.S.C. § 7509. Under section 179 and its implementing regulations, the Administrator first imposes offsets, and then, if the deficiency has not been corrected within 6 months, also applies highway sanctions. 40 CFR 52.31. Withholding Federal highway funds could have a deleterious impact on the Governor's Accelerated Building Bridges Program.

(13) State why the regulation is needed. Explain the compelling public interest that justifies the regulation. Describe who will benefit from the regulation. Quantify the benefits as completely as possible and approximate the number of people who will benefit.

Implementation of the proposed control measure would benefit the health and welfare of the approximately 12 million human residents and numerous animal residents, and crops, vegetation and natural areas, of this Commonwealth by reducing emissions of VOCs, which are precursors to ground-level ozone air pollution. Exposure to ground-level ozone is a serious human and animal health and welfare threat, causing respiratory illnesses and decreased lung function, agricultural crop loss, visible foliar injury to sensitive plant species, and damage to forests, ecosystems and infrastructure.

This proposed rulemaking is designed to adopt the standards in the 2006 CTG for flat wood paneling coatings, in order to meet the requirements of CAA sections 172(c)(1), 182(b)(2) and 184(b)(1)(B). 42 U.S.C. §§ 7502(c)(1), 7511a(b)(2) and 7511c(b)(1)(B). The proposed rulemaking would apply the CTG standards across this entire Commonwealth as required by CAA section 184(b)(1)(B). 42 U.S.C. § 7511c(b)(1)(B). This statewide implementation of the rule would assist in reducing VOC emissions from flat wood paneling surface coating operations locally and the resultant local formation of ground-level ozone and transport of VOC emissions and ground-level ozone to downwind states, and would facilitate implementation and enforcement of the rule within this Commonwealth.

Although the proposed amendments are designed primarily to address ozone air quality, the reformulation or substitution of coating products to meet the VOC content limits applicable to users may also result in reduction of hazardous air pollutant (HAP) emissions, which are also a serious health threat. The proposed rulemaking provides as one compliance option that inks, coatings and adhesives used on or applied to flat wood paneling products manufactured in this Commonwealth meet specified limits for VOC content, usually through substitution of low VOC-content solvents or water for the high VOC-content solvents. The reduced levels of high VOC-content solvents would also benefit water

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quality through reduced loading on water treatment plants and in reduced quantities of high VOC-content solvents leaching into the ground. Owners and operators of affected flat wood surface coating process facilities may also reduce VOC emissions through the use of add-on controls, or a combination of complying coatings and add-on controls. Adoption of VOC emission requirements for flat wood paneling surface coating operations is part of the Commonwealth's strategy, in concert with other Ozone Transport Region (OTR) jurisdictions, to further reduce transport of VOC ozone precursors and ground-level ozone throughout the OTR to attain and maintain the 8-hour ozone NAAQS.

The EPA estimates that implementation of the recommended control options for noncomplying flat wood paneling surface coating processes will result in additional reductions of VOC emissions of approximately 20% for interior flat wood paneling coating operations and 80% for exterior siding operations.

In this Commonwealth about 11 flat wood paneling surface coating operations combine to emit approximately 440.44 tons of VOCs per year. According to one facility, Craftmaster Manufacturing (Craftmaster) of Towanda, PA, the facility has potentially noncomplying interior flat wood paneling coating operations with total VOC emissions of 75.9 tons in 2008. The estimated potential maximum annual additional VOC emission reductions from the potentially noncomplying interior flat wood paneling coating operations at Craftmaster would be 15.18 tons. Craftmaster appears to have complying exterior siding coating operations, so the proposed rulemaking is not expected to provide additional VOC emission reductions from these operations.

The remaining 10 facilities emitted a total of 41.74 tons of VOCs in 2008. The maximum anticipated additional annual VOC emission reductions from these 10 noncomplying flat wood paneling surface coating facilities as a result of this proposed rulemaking ranges from approximately 8.3 tons (41.74 tons x 20%) for interior paneling coating operations to 33.4 tons (41.74 tons x 80%) for exterior siding coating operations.

Section 109(b) of the CAA provides that the Administrator of the EPA must set NAAQS for air pollutants at levels that protect public health and the environment. 42 U.S.C § 7409(b). Section 109(d) of the CAA provides that the NAAQS be reviewed at periodic intervals to ensure the standards reflect the latest scientific knowledge on the effects of air pollutants. 42 U.S.C. § 7409(d). The EPA set the primary ground-level 8-hour ozone NAAQS in July 1997 and revised it in March 2008 "...to provide increased protection for children and other 'at risk' populations against an array of ozone-related adverse health effects that range from decreased lung function and increased respiratory symptoms to serious indicators of respiratory morbidity including emergency department visits and hospital admissions for respiratory causes, and possibly cardiovascular-related morbidity as well as total nonaccidental and cardiorespiratory mortality." 73 FR 16436 (March 27, 2008). In both 1997 and 2008, the EPA also set the secondary standard to be identical to the primary standard, indicating that the new standard would "provide increased protection to the public welfare against ground-level ozone-induced effects on vegetation, such as agricultural crop loss, damage to forests and ecosystems, and visible foliar injury to sensitive species." 62 FR 38855 (July 18, 1997).

In July 1997, the EPA established primary and secondary ozone NAAQS at a level of 0.08 parts per million (ppm) averaged over 8 hours. 62 FR 38855 (July 18, 1997). In 2004, the EPA designated 37 counties in this Commonwealth as 8-hour ozone nonattainment areas for the 1997 8-hour ozone NAAQS. This Commonwealth is meeting the 1997 standards in all areas except the five-county

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Philadelphia and seven-county Pittsburgh-Beaver Valley areas. The areas in which the 1997 standard has been attained are required to have permanent and enforceable control measures to ensure violations do not occur for the next decade. The Commonwealth must demonstrate that the two areas currently not attaining the 1997 standard will meet the 1997 standard as expeditiously as practicable. Should these two areas not attain the standard during the 2009 ozone season, additional reductions will be required.

In March 2008, the EPA lowered the standards to 0.075 ppm averaged over 8 hours to provide even greater protection for children, other at-risk populations and the environment against the array of ozone-induced adverse health and welfare effects. 73 FR 16436 (March 27, 2008). As required by the CAA, the Commonwealth submitted recommendations to the EPA in 2009 to designate 29 counties as nonattainment for the 2008 8-hour ozone NAAQS. The EPA is expected to take final action on the designation recommendations by March 2010. The EPA's designations will take effect 60 days after the EPA publishes a notice in the *Federal Register*. Monitors in most urban areas and some rural areas of this Commonwealth are currently not meeting the 2008 ozone standard.

The measures in the proposed rulemaking are reasonably necessary to attain and maintain the health-based 8-hour ozone NAAQS in this Commonwealth.

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

The Department bases this proposed rulemaking upon the EPA's 2006 CTG for flat wood paneling coatings. The EPA's notice of final determination and availability of the final CTG was published at 71 FR 58745 (October 5, 2006), and a copy of the EPA's CTG is available at http://www.dep.state.pa.us/dep/deputate/airwaste/aq/attain/ctgs/final_flat_wood_panel_ctg.pdf.

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

The emission limits and other requirements of the proposed amendments would apply to the owner and operator of a flat wood paneling surface coating operation with actual VOC emissions equal to or greater than 15 pounds per day, including related cleaning activities, before consideration of controls. The proposed amendments would not apply to a field-applied coating process, a coating process regulated under §§ 129.101-129.107 (relating to wood furniture manufacturing operations) or a coating process regulated under §§ 129.52(f) and 129.52, Table I, Category 11 (relating to surface coating processes; and wood furniture manufacturing operations).

The 11 flat wood paneling surface coating facilities potentially affected by this proposed rulemaking reported a total of 440.44 tons of VOC emissions in 2008. Another facility, Craftmaster, indicates that it has potentially noncomplying interior flat wood paneling coating operations with total VOC emissions of 75.9 tons in 2008 that could be affected by the proposed rulemaking. The remaining 10 facilities emitted a total of 41.74 tons of VOCs in 2008 that could potentially be affected by the proposed rulemaking.

The proposed amendments would require that the VOC emissions from noncomplying coatings be controlled in one of three ways, namely through the use of: 1) low VOC-content coatings; 2) add-on controls with an overall VOC control efficiency of 90% for each affected coating line; or 3) a combination of low VOC-content coatings and add-on controls. Users of coating products that meet the proposed VOC emission limits would benefit by not needing to use add-on controls to control VOC

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emissions.

The recommended control approaches for cleaning materials discussed in the CTG would apply to the owners and operators of each subject facility. These include taking steps to ensure that VOC emissions are minimized from mixing operations, storage tanks and other containers, and handling operations for coatings, thinners, cleaning materials and waste materials.

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

The coating limits and work practice standards in the proposed rulemaking would apply to the owner and operator of a flat wood paneling surface coating operation with VOC emissions equal to or greater than 15 pounds per day, including related cleaning activities, before consideration of controls. This Commonwealth has identified 11 facilities potentially subject to the proposed rulemaking. These facilities are listed in the following table along with their reported 2008 VOC emissions.

Flat Wood Paneling Coating Facility	Total Reported 2008 VOC Emissions, tons
CRAFTMASTER MFG/TOWANDA MILL	398.7*
ARMACLAD DOORS & WINDOWS LLC/QUINCY PLT	9.41
MASONITE CORP/NORTHUMBERLAND DOOR PLT	11.49
EXCEL HOMES LLC/AVIS AMER HENRY ST PLT	8.19
RITZ CRAFT CORP/MIFFLINBURG PLT	8.31
DELUXE BLDG SYS INC/BERWICK PLT	1.64
BELLES SPRINGS STRUCTURES LLC/LAMAR TWP PLT	**
APEX HOMES/MIDDLECREEK	NA yet
PROFESSIONAL BLDG SYS/MIDDLEBURG PLT	**
EXCEL HOMES LLC/LIVERPOOL – Juniata County	>2.7
Jeldwen Inc – Pottsville	**
Total reported VOC emissions for 2008, tons	440.44

* No additional VOC emission reductions from or compliance costs for this facility for exterior siding coating operations, which are in compliance with the proposed VOC emission limitations for exterior siding operations.

**These facilities have emissions of VOC that are too low to report into the Department's Air Information Management System database.

SECTION III: COST AND IMPACT ANALYSIS

(17) Provide a specific estimate of the costs and/or savings to the **regulated community** associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

The costs of complying with the proposed new requirements include the cost of using alternative product formulations, including low-VOC or water-based inks, coatings and adhesives, and low-VOC or water-based cleanup solvent products, and the costs of using add-on controls. Based on information provided by the EPA in the flat wood paneling coatings CTG, the cost effectiveness of reducing VOC emissions from noncomplying flat wood paneling surface coating operations is estimated to range from \$1900 for interior paneling coating operations to \$2600 for exterior siding coating operations per ton of VOC emissions reduced. This range is based on the use of low VOC-content coatings for control.

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According to Craftmaster, the facility has potentially noncomplying interior flat wood paneling coating operations with total VOC emissions of 75.9 tons in 2008. Based on 2008 data, the estimated potential maximum annual additional VOC emission reductions from noncomplying interior flat wood paneling coating operations at Craftmaster would be 15.18 tons (75.9 tons x 20%). The estimated maximum annual cost for the owners or operators of Craftmaster for noncomplying interior flat wood paneling coating operations would be \$28,842 from this proposed rulemaking. Craftmaster has complying exterior siding coating operations, so no additional VOC emission reductions or costs would be expected from these operations.

The remaining 10 listed facilities emitted a total of 41.74 tons of VOCs in 2008. The maximum anticipated additional annual VOC emission reductions from noncomplying flat wood paneling surface coating facilities for these 10 facilities as a result of this proposed rulemaking range from approximately 8.3 tons (41.74 tons x 20%) for interior paneling coating operations to 33.4 tons (41.74 tons x 80%) for exterior siding coating operations. The maximum anticipated additional annual costs to the owners or operators of these 10 facilities for noncomplying flat wood paneling coating operations would range from \$15,770 (8.3 tons VOC emissions reduced x \$1900/ton reduced) to \$86,000 (33.3 tons VOC emissions reduced x \$2600/ton reduced).

The implementation of the work practices for cleaning materials is expected to result in a net cost savings. The recommended work practices should reduce the amount of cleaning materials used by reducing the amount of cleaning materials lost to evaporation, spillage or waste.

(18) Provide a specific estimate of the costs and/or savings to **local governments** associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

The proposed rulemaking is expected to impose no additional direct regulatory costs on local governments.

If a local government purchases affected flat wood paneling products, however, additional costs or savings commensurate with those for the private sector may be experienced.

(19) Provide a specific estimate of the costs and/or savings to **state government** associated with the implementation of the regulation, including any legal, accounting, or consulting procedures which may be required. Explain how the dollar estimates were derived.

The proposed rulemaking is expected to impose no additional direct regulatory costs or savings on state governments, except that nominal costs will be experienced by the Commonwealth to assist in providing training, outreach and assistance to the regulated community. No new staff resources are anticipated to be necessary.

To the extent that state government purchases affected flat wood paneling products, costs or savings will be commensurate with those the private sector will experience.

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(20) In the table below, provide an estimate of the fiscal savings and costs associated with implementation and compliance for the regulated community, local government, and state government for the current year and five subsequent years.

	Current FY Year 08/09	FY +1 Year 09/10	FY +2 Year 10/11	FY +3 Year 11/12	FY +4 Year 12/13	FY +5 Year 13/14
SAVINGS:						
Regulated Community	0.00	0.00	0.00	0.00	0.00	0.00
Local Government	0.00	0.00	0.00	0.00	0.00	0.00
State Government	0.00	0.00	0.00	0.00	0.00	0.00
Total Savings	0.00	0.00	0.00	0.00	0.00	0.00
COSTS:						
Craftmaster Manufacturing	\$28,842	\$28,842	\$28,842	\$28,842	\$28,842	\$28,842
Remaining 10 facilities	\$15,770 to \$86,000	\$15,770 to \$86,000	\$15,770 to \$86,000	\$15,770 to \$86,000	\$15,770 to \$86,000	\$15,770 to \$86,000
Local Government	0.00	0.00	0.00	0.00	0.00	0.00
State Government	0.00	0.00	0.00	0.00	0.00	0.00
Total Costs Craftmaster Manufacturing	\$28,842	\$28,842	\$28,842	\$28,842	\$28,842	\$28,842
Total Costs Remaining 10 facilities	\$15,770 to \$86,000	\$15,770 to \$86,000	\$15,770 to \$86,000	\$15,770 to \$86,000	\$15,770 to \$86,000	\$15,770 to \$86,000
REVENUE LOSSES:						
Regulated Community	0.00	0.00	0.00	0.00	0.00	0.00
Local Government	0.00	0.00	0.00	0.00	0.00	0.00
State Government	0.00	0.00	0.00	0.00	0.00	0.00
Total Revenue Losses	0.00	0.00	0.00	0.00	0.00	0.00

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

Program	FY-3 (05/06)	FY-2 (06/07)	FY-1 (07/08)	Current FY (08/09)
Environmental Program Management (161-10382)	\$37,049,000	\$36,868,000	\$39,909,000	\$41,800,000
Clean Air Fund Major Emission Facilities (215-20077)	\$24,290,000	\$26,218,000	\$23,872,000	\$24,053,000

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Clean Air Fund Mobile and Area Facilities (233-20084)	\$8,231,000	\$12,863,000	\$8,505,000	\$9,613,000
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(21) Explain how the benefits of the regulation outweigh any cost and adverse effects.

Implementation of this VOC emission reduction measure is reasonably necessary in this Commonwealth to attain and maintain the health- and welfare-based 8-hour ozone NAAQS. The proposed amendments may also reduce ambient outdoor and indoor concentrations of HAPs. The estimated total annual cost to the owners or operators of Craftmaster is \$28,842. The estimated total annual costs to the owners or operators of the remaining 10 listed potentially noncomplying facilities range from approximately \$15,770 to \$86,000, depending on the type of flat wood paneling surface coating processes. These costs are negligible compared to the improved health and environmental benefits that would be gained from this proposed rulemaking.

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

The concepts of the proposed rulemaking were discussed with the Air Quality Technical Advisory Committee (AQTAC) at its October 30 and December 11, 2008, meetings. The proposed rulemaking was discussed with the AQTAC on May 28, 2009. The AQTAC concurred with the Department's recommendation to present the proposed amendments to the Board for approval for publication as a proposed rulemaking. The Department also consulted with the Citizens Advisory Council on July 21, 2009, and with the Small Business Compliance Advisory Committee on October 22, 2008, and April 22 and July 22, 2009.

(23) Include a description of any alternative regulatory provisions which have been considered and rejected and a statement that the least burdensome acceptable alternative has been selected.

There are no alternative regulatory provisions available that will achieve the needed level of emission reductions from the affected flat wood paneling surface coating operations.

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

There are no Federal standards for flat wood paneling coatings. The requirements in the proposed rulemaking are consistent with the recommendations of the EPA in the 2006 CTG for flat wood paneling coatings.

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

As discussed in the response to question 12, section 184(b)(1)(B) of the CAA requires that states in the OTR submit a SIP revision requiring implementation of RACT for all sources of VOC emissions in the state covered by a specific CTG. 42 U.S.C. § 7511c(b)(1)(B). All states in the OTR that have flat wood paneling coating operations are required to implement RACT or equivalent control measures. Pennsylvania will not be at a disadvantage with the other states in the OTR.

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

No.

(27) Submit a statement of legal, accounting or consulting procedures and additional reporting, recordkeeping or other paperwork, including copies of forms or reports, which will be required for implementation of the regulation and an explanation of measures which have been taken to minimize these requirements.

The owners and operators of affected flat wood paneling surface coating operations would be required to keep daily operational records of information for coatings and cleaning solvents sufficient to demonstrate compliance, including identification of materials, VOC content and volumes used. The records must be maintained for 2 years and submitted to the Department upon request. Persons claiming the small quantity exemption or use of exempt coating would be required to keep records demonstrating the validity of the exemption. Persons seeking to comply through the use of add-on controls would be required to meet the applicable reporting requirements specified in 25 *Pa. Code* Chapter 139 (relating to sampling and testing).

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

There are no special provisions.

**FACE SHEET
FOR FILING DOCUMENTS
WITH THE LEGISLATIVE REFERENCE
BUREAU**

(Pursuant to Commonwealth Documents Law)

DO NOT WRITE IN THIS SPACE

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


By: _____
(Deputy Attorney General)

OCT 01 2009
DATE OF APPROVAL

☒ Check if applicable
Copy not approved. Objections attached.

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

DEPARTMENT OF ENVIRONMENTAL
PROTECTION
ENVIRONMENTAL QUALITY BOARD

(AGENCY)

DOCUMENT/FISCAL NOTE NO. 7-447

DATE OF ADOPTION September 15, 2009

BY John Hanger

TITLE JOHN HANGER
CHAIRPERSON

EXECUTIVE OFFICER CHAIRMAN OR SECRETARY

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

BY 
Andrew C. Clark

DATE OF APPROVAL
SEP 16 2009

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

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

NOTICE OF PROPOSED RULEMAKING

DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD

Flat Wood Paneling Surface Coating Operations

25 Pa. Code, Chapters 121 and 129

**Notice of Proposed Rulemaking
Department of Environmental Protection
Environmental Quality Board
(25 Pa. Code Chapters 121 and 129)
Flat Wood Paneling Surface Coating Processes**

Preamble

The Environmental Quality Board (Board) proposes to amend Chapters 121 and 129 (relating to general provisions; and standards for sources) to read as set forth in Annex A.

The proposed rulemaking would amend Chapter 129 (relating to standards for sources) to limit emissions of volatile organic compounds (VOCs) from the use and application of coatings and cleaning materials in flat wood paneling surface coating processes. The proposal would add § 129.52c (relating to control of VOC emissions from flat wood paneling surface coating processes) and would amend §§ 121.1 and 129.51 (relating to definitions; and general).

This proposal was adopted by the Board at its meeting on September 15, 2009.

A. Effective Date

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

B. Contact Persons

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

C. Statutory Authority

This proposed rulemaking is authorized under section 5 of the Air Pollution Control Act (APCA) (35 P. S. § 4005), which in subsection (a)(1) grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth, and which in subsection (a)(8) grants the Board the authority to adopt rules and regulations designed to implement the provisions of the Clean Air Act (CAA).

D. Background and Purpose

The purpose of this proposed rulemaking is to reduce VOC emissions from flat wood paneling surface coating operations. VOCs are a precursor for ozone formation. Ground-level ozone is not emitted directly by surface coatings to the atmosphere, but is formed by a photochemical reaction between VOCs and nitrogen oxides (NOx) in the presence of sunlight. The proposed rulemaking adopts the emission limits and other requirements of the U.S. Environmental Protection Agency's (EPA) 2006 Control Techniques Guidelines (CTG) for flat wood paneling coating in order to meet Federal CAA requirements.

The EPA is responsible for establishing National Ambient Air Quality Standards (NAAQS) for six criteria pollutants considered harmful to public health and the environment: ozone, particulate matter, NOx, carbon monoxide, sulfur dioxide and lead. The CAA established two types of NAAQS: primary standards, limits set to protect public health; and secondary standards, limits set to protect public welfare, including protection against visibility impairment and from damage to animals, crops, vegetation and buildings. The EPA has established primary and secondary ozone NAAQS to protect public health and welfare.

When ground-level ozone is present in concentrations in excess of the Federal health-based 8-hour NAAQS for ozone, public health and welfare are adversely affected. Ozone exposure correlates to increased respiratory disease and higher mortality rates. Ozone can inflame and damage the lining of the lungs. Within a few days, the damaged cells are shed and replaced. Over a long time period, lung tissue may become permanently scarred, resulting in permanent loss of lung function and a lower quality of life. When ambient ozone levels are high, more people with asthma have attacks that require a doctor's attention or use of medication. Ozone also makes people more sensitive to allergens including pet dander, pollen and dust mites, all of which can trigger asthma attacks.

The EPA has concluded that there is an association between high levels of ambient ozone and increased hospital admissions for respiratory ailments including asthma. While children, the elderly and those with respiratory problems are most at risk, even healthy individuals may experience increased respiratory ailments and other symptoms when they are exposed to high levels of ambient ozone while engaged in activities that involve physical exertion. High levels of ozone also affect animals in ways similar to humans.

In addition to causing adverse human and animal health effects, the EPA has concluded that ozone affects vegetation and ecosystems, leading to reductions in agricultural crop and commercial forest yields by destroying chlorophyll; reduced growth and survivability of tree seedlings; and increased plant susceptibility to disease, pests, and other environmental stresses, including harsh weather. In long-lived species, these effects may become evident only after several years or even decades and have the potential for long-term adverse impacts on forest ecosystems. Ozone damage to the foliage of trees and other plants can decrease the aesthetic value of ornamental species used in residential landscaping, as well as the natural beauty of parks and recreation areas. Through deposition, ground-level ozone also contributes to pollution in the Chesapeake Bay. The economic value of some welfare losses due to ozone can be calculated, such as crop yield loss from both reduced seed production and visible injury to some leaf crops, including lettuce, spinach and tobacco, as well as visible injury to ornamental plants, including

grass, flowers and shrubs. Other types of welfare loss may not be quantifiable, such as the reduced aesthetic value of trees growing in heavily visited parks.

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

In July 1997, the EPA established primary and secondary ozone standards at a level of 0.08 parts per million (ppm) averaged over 8 hours. 62 FR 38855 (July 18, 1997). In 2004, the EPA designated 37 counties in this Commonwealth as 8-hour ozone nonattainment areas for the 1997 8-hour ozone NAAQS. This Commonwealth is meeting the 1997 standard in all areas except the five-county Philadelphia and seven-county Pittsburgh-Beaver Valley areas. The areas in which the 1997 standard has been attained are required to have permanent and enforceable control measures to ensure violations do not occur for the next decade. The Commonwealth must demonstrate that the two areas currently not attaining the 1997 standard will meet the 1997 standard as expeditiously as practicable. Should these two areas not attain the standard during the 2009 ozone season, additional reductions will be required.

In March 2008, the EPA lowered the standards to 0.075 ppm averaged over 8 hours to provide even greater protection for children, other at-risk populations and the environment against the array of ozone-induced adverse health and welfare effects. 73 FR 16436 (March 27, 2008). As required by the CAA, the Commonwealth submitted recommendations to the EPA in 2009 to designate 29 counties as nonattainment for the 2008 8-hour ozone NAAQS. The EPA is expected to take final action on the designation recommendation by March 2010. The EPA's designations will take effect 60 days after the EPA publishes a notice in the *Federal Register*. Monitors in most urban areas and some rural areas of this Commonwealth are currently not meeting the 2008 ozone standard.

There are no Federal statutory or regulatory limits for VOC emissions from flat wood paneling surface coating operations. State regulations to control VOC emissions from flat wood paneling surface coating operations are required under Federal law, however, and will be reviewed by the EPA for whether they meet the "reasonably available control technology" (RACT) requirements of the CAA and its implementing regulations. *Consumer and Commercial Products, Group II: Control Techniques Guidelines in lieu of Regulations for Flexible Packaging Printing Materials, Lithographic Printing Materials, Letterpress Printing Materials, Industrial Cleaning Solvents, and Flat Wood Paneling Coatings*, 71 FR 58745, 58747 (October 5, 2006).

Section 172(c)(1) of the CAA provides that State Implementation Plans (SIP) for nonattainment areas must include "reasonably available control measures," including RACT, for sources of emissions. 42 U.S.C. § 7502(c)(1). Section 182(b)(2) of the CAA provides that for moderate ozone nonattainment areas, states must revise their SIPs to include RACT for sources of VOC emission covered by a CTG document issued by the EPA prior to the area's date of attainment. 42 U.S.C. § 7511a(b)(2). More importantly, section 184(b)(1)(B) of the CAA

requires that states in the Ozone Transport Region (OTR), including Pennsylvania, submit a SIP revision requiring implementation of RACT for all sources of VOC emissions in the state covered by a specific CTG. 42 U.S.C. § 7511c(b)(1)(B).

Section 183(e) of the CAA directs the EPA to list for regulation those categories of products that account for at least 80% of the VOC emissions from consumer and commercial products in ozone nonattainment areas. 42 U.S.C. § 7511b(e). Section 183(e)(3)(C) of the CAA further provides that the EPA may issue a CTG in place of a National regulation for a product category where the EPA determines that the CTG will be “substantially as effective as regulations” in reducing emissions of VOC in ozone nonattainment areas. 42 U.S.C. § 7511b(e)(3)(C).

In 1995, the EPA listed flat wood paneling coatings on its section 183(e) list and, in 2006, issued a CTG for flat wood paneling coatings. 60 FR 15264 (March 23, 1995) and 71 FR 58745 (October 5, 2006). In the 2006 notice, the EPA determined that the CTG would be substantially as effective as a National regulation in reducing VOC emissions from this product category in ozone nonattainment areas. 71 FR at p. 58745.

The CTG provides states with the EPA’s recommendation of what constitutes RACT for the covered category. States can use the recommendations provided in the CTG to inform their own determination as to what constitutes RACT for VOC emissions from the covered category. State air pollution control agencies are free to implement other technically sound approaches that are consistent with the CAA requirements and the EPA’s implementing regulations or guidelines.

The Department has reviewed the recommendations included in the 2006 CTG for flat wood paneling coatings for their applicability to the ozone reduction measures necessary for this Commonwealth. The Department has determined that the measures provided in the CTG for flat wood paneling coatings are appropriate to be implemented in this Commonwealth as RACT for this category.

This rulemaking, if adopted as a final rule, would assist in reducing VOC emissions locally as well as reducing the transport of VOC emissions and ground-level ozone to downwind states. Adoption of VOC emission requirements for flat wood paneling surface coating operations is part of the Commonwealth’s strategy, in concert with other OTR jurisdictions, to further reduce transport of VOC ozone precursors and ground-level ozone throughout the OTR to attain and maintain the 8-hour ozone NAAQS. The proposed rulemaking is required under the CAA requirements that states regulate sources covered by CTGs issued by the EPA and is reasonably necessary to attain and maintain the health-based 8-hour ozone NAAQS in this Commonwealth. When final, this rulemaking will be submitted to the EPA as a revision to the SIP.

The concepts of the proposed rulemaking were discussed with the Air Quality Technical Advisory Committee (AQTAC) at its October 30 and December 11, 2008, meetings. The proposed rulemaking was discussed with the AQTAC on May 28, 2009. The AQTAC concurred with the Department’s recommendation to present the proposed amendments to the Board for approval for publication as a proposed rulemaking. The Department also consulted with the Citizens Advisory Council on July 21, 2009, and with the Small Business Compliance Advisory Committee on October 22, 2008, and April 22 and July 22, 2009.

E. Summary of Regulatory Requirements

This proposed rulemaking adds the definitions of the following 15 terms to § 121.1 to support the proposed addition of § 129.52c: “Class II hardboard paneling finish,” “decorative interior panel,” “exterior siding,” “exterior trim,” “flat wood paneling coating,” “hardboard,” “hardwood plywood,” “MDF-medium density fiberboard,” “natural finish hardwood plywood panel,” “particleboard,” “plywood,” “printed interior panel,” “thin particleboard,” “tileboard” and “waferboard.”

The proposed rulemaking would amend § 129.51(a) to extend its coverage to flat wood paneling surface coating processes covered by this proposed rulemaking, as well as to paper, film and foil surface coating processes and large appliance and metal furniture surface coating processes, which are covered in parallel rulemakings. Section 129.51(a) provides an alternative method for owners and operators of facilities to achieve compliance with air emission limits.

The proposed rulemaking would add § 129.52c to regulate VOC emissions from flat wood paneling surface coating processes. The applicability of this new section is described in subsection (a), which establishes that § 129.52c applies to the owner and operator of a flat wood paneling surface coating process, other than a field-applied coating process or a surface coating process regulated under §§ 129.101-129.107 (relating to wood furniture manufacturing operations) or §§ 129.52(f) and 129.52, Table I, Category 11 (relating to surface coating processes; and wood furniture manufacturing operations), if the total actual VOC emissions from all flat wood paneling surface coating operations listed in Table I (relating to emission limits of VOCs for flat wood paneling surface coatings), including related cleaning activities, at the facility are equal to or greater than 15 pounds (6.8 kilograms) per day, before consideration of controls. Field-applied coatings are not subject to this rulemaking because they are regulated under Chapter 130, Subchapter C (relating to architectural and industrial maintenance coatings).

Proposed subsection (b) explains that the requirements of § 129.52c supersede the requirements of a RACT permit for VOC emissions from a flat wood paneling surface coating operation already issued to the owner or operator of a source subject to § 129.52c, except to the extent the RACT permit contains more stringent requirements.

Proposed subsection (c) establishes VOC emission limits. Beginning January 1, 2011, a person may not cause or permit the emission into the outdoor atmosphere of VOCs from a flat wood paneling surface coating process, unless (1) the VOC content of each as applied coating is equal to or less than the limit specified in the table in § 129.52c, or (2) the overall weight of VOCs emitted to the atmosphere is reduced through the use of vapor recovery, incineration or another method that is acceptable under § 129.51(a). The second option also addresses the overall efficiency of a control system.

Proposed subsection (d) identifies daily records that must be kept to demonstrate compliance with § 129.52c, including records of parameters and VOC content of each coating, thinner, component and cleaning solvent, as supplied, and the VOC content of each as applied coating or cleaning solvent.

Proposed subsection (e) requires that the records be maintained for 2 years and submitted to the Department on request.

Under proposed subsection (f), an owner or operator subject to § 129.52c may not cause or permit the emission into the outdoor atmosphere of VOCs from the application of flat wood paneling surface coatings, unless the coatings are applied using offset rotogravure coating, curtain coating, direct roll coating, reverse roll coating, hand brush or hand roller coating, or high volume-low pressure (HVLV) spray coating. An owner or operator may use another coating application method if a request is submitted in writing that demonstrates that the method is capable of achieving a transfer efficiency equivalent to or better than that achieved by the other methods listed in subsection (f), and is approved in writing by the Department prior to use.

Proposed subsection (g) exempts coatings used exclusively for determining product quality and commercial acceptance and other small quantity coatings from the VOC coating content limits in Table I of proposed § 129.52c, if 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 and if the owner or operator of the facility requests, in writing, and the Department approves, in writing, the exemption prior to use of the coating.

Proposed subsection (h) establishes work practices that an owner or operator of a flat wood paneling surface coating process subject to § 129.52c must comply with for coating-related activities.

Proposed subsection (i) establishes work practices that an owner or operator of a flat wood paneling surface coating process subject to § 129.52c must comply with for cleaning materials.

Proposed Table I establishes emission limits for VOCs for flat wood paneling surface coatings, expressed in weight of VOC per volume of coating solids, as applied.

F. Benefits, Costs and Compliance

Benefits

Implementation of the proposed control measure would benefit the health and welfare of the approximately 12 million humans, animals, crops, vegetation and natural areas of this Commonwealth by reducing emissions of VOCs, which are precursors to ground-level ozone air pollution. Although the proposed amendments are designed primarily to address ozone air quality, the reformulation or substitution of coating products to meet the VOC content limits applicable to users may also result in reduction of hazardous air pollutant (HAP) emissions, which are also a serious health threat.

The proposed rulemaking provides as one compliance option that inks, coatings and adhesives used on or applied to flat wood paneling products manufactured in this Commonwealth meet specified limits for VOC content, usually through substitution of low VOC-content solvents or water for the high VOC-content solvents. The reduced levels of high VOC-content solvents would also benefit water quality through reduced loading on water

treatment plants and in reduced quantities of high VOC-content solvents leaching into the ground. Owners and operators of affected flat wood paneling surface coating process facilities may also reduce VOC emissions through the use of add-on controls, or a combination of complying coatings and add-on controls.

The EPA estimates that implementation of the recommended control options for noncomplying flat wood paneling surface coating processes will result in additional reductions of VOC emissions of approximately 20% for interior flat wood paneling coating operations and 80% for exterior siding operations.

In this Commonwealth about 11 flat wood paneling surface coating operations emitted approximately 440.44 tons of VOCs in 2008. The highest emitting of these facilities has potentially noncomplying interior flat wood paneling coating operations with total VOC emissions of 75.9 tons in 2008. Based on 2008 data, the estimated potential maximum annual additional VOC emission reductions from noncomplying interior flat wood paneling coating operations at this facility would be 15.18 tons (75.9 tons x 20%). No additional VOC emission reductions are expected from this facility for exterior siding coating operations.

The remaining 10 facilities emitted a total of 41.74 tons of VOCs in 2008. The maximum anticipated additional annual VOC emission reductions from noncomplying flat wood paneling surface coating operations at these facilities as a result of this proposed rulemaking range from approximately 8.3 tons (41.74 tons x 20%) for interior paneling coating operations to 33.4 tons (41.74 tons x 80%) for exterior siding coating operations.

Compliance Costs

The costs of complying with the proposed new requirements include the cost of using alternative product formulations, including low-VOC or water-based inks, coatings and adhesives, and low-VOC or water-based cleanup solvent products, and the use of add-on controls. Based on information provided by the EPA in the CTG, the cost effectiveness of reducing VOC emissions from flat wood paneling surface coating operations is estimated to range from \$1900 for interior paneling coating operations to \$2600 for exterior siding coating operations per ton of VOC emissions reduced. This range is based on the use of low VOC-content coatings for control.

The total estimated anticipated annual costs to noncomplying facilities would range from \$28,842 (75.9 tons VOC emissions reduced x \$1900/ton reduced) to \$86,000 (33.3 tons VOC emissions reduced x \$2600/ton reduced). The potential total annual costs of \$28,842 to \$86,000 to the owners or operators of noncomplying facilities are negligible compared to the improved health and environmental benefits that would be gained from this measure.

The implementation of the work practice requirements for cleaning materials is expected to result in a net cost savings. The recommended work practices should reduce the amount of cleaning materials used by reducing the amount of cleaning materials lost to evaporation, spillage or waste.

Compliance Assistance Plan

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

Paperwork Requirements

The owners and operators of affected flat wood paneling surface coating operations would be required to keep daily operational records of information for coatings and cleaning solvents sufficient to demonstrate compliance, including identification of materials, VOC content and volumes used. The records must be maintained for 2 years and submitted to the Department upon request. Persons claiming the small quantity exemption or use of exempt coating would be required to keep records demonstrating the validity of the exemption. Persons seeking to comply through the use of add-on controls would be required to meet the applicable reporting requirements specified in 25 *Pa. Code* Chapter 139 (relating to sampling and testing).

G. Pollution Prevention

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

The proposed amendments will assure that the citizens and the environment of this Commonwealth experience the benefits of reduced emissions of VOCs and HAPs from flat wood paneling surface coating processes. Although the proposed amendments are designed primarily to address ozone air quality, the reformulation or substitution of coating products to meet the VOC content limits applicable to users may also result in reduction of HAP emissions, which are also a serious health threat. The proposed rulemaking provides as one compliance option that inks, coatings and adhesives used on or applied to flat wood paneling products manufactured in this Commonwealth meet specified limits for VOC content, usually through substitution of low VOC-content solvents or water for the high VOC-content solvents. The reduced levels of high VOC-content solvents would also benefit water quality through reduced loading on water treatment plants and in reduced quantities of high VOC-content solvents leaching into the ground. Owners and operators of affected flat wood surface coating process facilities may also reduce VOC emissions through the use of add-on controls, or a combination of complying coatings and add-on controls.

H. Sunset Review

This regulation will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulation effectively fulfills the goals for which it was intended.

I. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on October 6, 2009, the Department submitted a copy of these proposed amendments to the Independent Regulatory Review Commission (IRRC) and the Chairpersons of the House and Senate Environmental Resources and Energy Committees. In addition to submitting the proposed amendments, the Department has provided IRRC and the Committees with a copy of a detailed regulatory analysis form prepared by the Department. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations or objections to the proposed rulemaking within 30 days of the close of the public comment period. The comments, recommendations or objections shall specify the regulatory review criteria that have not been met. The Regulatory Review Act specifies detailed procedures for review of these issues by the Department, the General Assembly and the Governor prior to final publication of the regulations.

J. Public Comments

Written Comments - Interested persons are invited to submit comments, suggestions or objections regarding the proposed rulemaking to the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301). Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Board by December 21, 2009. Interested persons may also submit a summary of their comments to the Board. The summary may not exceed one page in length and must also be received by December 21, 2009. The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the final regulation will be considered.

Electronic Comments - Comments may be submitted electronically to the Board at RegComments@state.pa.us and must also be received by the Board by December 21, 2009. A subject heading of the proposal and a return name and address must be included in each transmission. If an acknowledgement of electronic comments is not received by the sender within 2 working days, the comments should be retransmitted to the Board to ensure receipt.

K. Public Hearings

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

Department of Environmental Protection
Southcentral Regional Office

November 17, 2009
2:00 p.m.

Susquehanna Room A
909 Elmerton Avenue
Harrisburg, PA 17110

Department of Environmental Protection
Southeast Regional Office
Delaware Conference Room
2 East Main Street
Norristown, PA 19401

November 19, 2009
2:00 p.m.

Department of Environmental Protection
Southwest Regional Office
Waterfront Conference Room A and B
400 Waterfront Drive
Pittsburgh, PA 15222-4745

November 20, 2009
2:00 p.m.

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

Persons in need of accommodations as provided for in the Americans With Disabilities Act of 1990 should contact the Board at (717) 787-4526 or through the Pennsylvania AT&T Relay Service at (800) 654-5984 (TDD) or (800) 654-5988 (voice users) to discuss how the Board may accommodate their needs.

JOHN HANGER
Chairperson

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:

* * * * *

Class II hardboard paneling finish-A finish that meets the specifications of Voluntary Product Standard PS-59-73 as approved by the American National Standards Institute.

* * * * *

Decorative interior panel-Interior wall paneling that is usually grooved, frequently embossed and sometimes grain printed to resemble various wood species. Interior panels are typically manufactured at the same facilities as tileboard, although in much smaller quantities. The substrate can be hardboard, plywood, medium density fiberboard (MDF) or particleboard.

* * * * *

Exterior siding-Siding made of solid wood, hardboard or waferboard. Siding made of solid wood or hardboard is typically primed at the manufacturing facility and finished in the field, although some finishing may be performed during manufacturing. The term includes exterior trim.

Exterior trim-Material made out of siding panels and used for edges and corners around the siding. Exterior trim is typically manufactured at the same facility as exterior siding and coated with the same coatings as siding.

* * * * *

Flat wood paneling coating-A protective, decorative or functional material applied to a flat wood paneling product, including a decorative interior panel, exterior siding or tileboard.

* * * * *

Hardboard-A panel manufactured primarily from interfelted lignocellulosic fibers that are consolidated under heat and pressure in a hot-press.

Hardwood plywood-Plywood on which the surface layer is a veneer of hardwood.

* * * * *

MDF-Medium density fiberboard-An engineered wood panel product manufactured from individual wood fibers combined with wax and resin and consolidated under extreme heat and pressure.

* * * * *

Natural-finish hardwood plywood panel-A panel on which the original grain pattern is enhanced by an essentially transparent finish frequently supplemented by filler and toner.

* * * * *

Particleboard-A manufactured board made of individual wood particles that have been coated with a binder and formed into flat sheets by pressure.

* * * * *

Plywood-A structural material made of layers of laminated plies of veneers or layers of wood glued together, usually with the grains of adjoining layers at right angles to each other.

* * * * *

Printed interior panel-A panel on which the grain or natural surface is obscured by filler and basecoat upon which a simulated grain or decorative pattern is printed.

* * * * *

Thin particleboard-Particleboard that has a thickness of ¼ inch or less.

* * * * *

Tileboard-A premium interior wall paneling product made of hardboard that is used in high moisture areas of the home, including kitchens and bathrooms. Tileboard meets the specifications for Class I hardboard approved by the American National Standards Institute.

* * * * *

Waferboard-A structural material made from rectangular wood flakes of controlled length and thickness bonded together with waterproof phenolic resin under extreme heat and pressure. The layers of flakes are not oriented.

* * * * *

CHAPTER 129. STANDARDS FOR SOURCES

SOURCES OF VOCs

§ 129.51. General.

(a) *Equivalency.* Compliance with §§ 129.52, **129.52a, 129.52b, 129.52c** and 129.54—129.73 may be achieved by alternative methods if the following exist:

* * * * *

(3) Compliance by a method other than the use of a low VOC coating or ink which meets the applicable emission limitation in §§ 129.52, **129.52a, 129.52b, 129.52c**, 129.67 and 129.73 [(relating to surface coating processes; graphic arts systems; and aerospace manufacturing and rework)] shall be determined on the basis of equal volumes of solids.

* * * * *

(6) The alternative compliance method is incorporated into a plan approval or operating permit, or both, reviewed by the EPA, including the use of an air cleaning device to comply with § 129.52, **§ 129.52a, § 129.52b, § 129.52c**, § 129.67, § 129.68(b)(2) and (c)(2) or § 129.73.

* * * * *

[Editor's note: Section 129.52c is new and printed in regular type to enhance readability.]

§ 129.52c. Control of VOC emissions from flat wood paneling surface coating processes.

(a) *Applicability.* Except as specified below, this section applies to the owner and operator of a flat wood paneling surface coating process if the total actual VOC emissions from all flat wood paneling surface coating operations listed in Table I (relating to

emission limits of VOCs for flat wood paneling surface coatings), including related cleaning activities, at the facility are equal to or greater than 15 pounds (6.8 kilograms) per day, before consideration of controls. This section does not apply to the following:

- (1) A field-applied coating process.
- (2) A coating process regulated under §§ 129.101-129.107 (relating to wood furniture manufacturing operations).

- (3) A coating process regulated under §§ 129.52(f) and 129.52, Table I, Category 11 (relating to surface coating processes; and wood furniture manufacturing operations).

(b) *Existing RACT permit.* The requirements of this section supersede the requirements of a RACT permit issued to the owner or operator of a source subject to subsection (a) prior to January 1, 2011, under §§ 129.91 – 129.95 (relating to stationary sources of NOx and VOCs) to control, reduce or minimize VOCs from a flat wood paneling surface coating process, except to the extent the RACT permit contains more stringent requirements.

(c) *Emission limits.* Beginning January 1, 2011, a person subject to this section may not cause or permit the emission into the outdoor atmosphere of VOCs from a flat wood paneling coating process unless one of the following limitations is met:

- (1) The VOC content of each as applied coating is equal to or less than the limit specified in Table I.

- (i) The VOC content of each as applied coating, expressed in units of weight of VOC per volume of coating solids, shall be calculated as follows:

$$\text{VOC} = (\text{W}_o)(\text{D}_c)/\text{V}_n$$

Where:

VOC = VOC content in lb VOC/gal of coating solids

W_o = Weight percent of VOC ($\text{W}_v - \text{W}_w - \text{W}_{ex}$)

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 as applied coating

(ii) 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 oxidation or solvent recovery or another method that is acceptable under § 129.51(a) (relating to general). The overall efficiency of a control system, as determined by the test methods and procedures specified in Chapter 139, may be no less than 90% or may be no less than the equivalent efficiency as calculated by the following equation, whichever is less stringent:

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

Where:

V = The VOC content of the as applied coating, in lb VOC/gal of coating solids.

E = The Table I limit in lb VOC /gal of coating solids.

O = The overall required control efficiency.

(d) *Compliance monitoring procedures.* The owner or operator of a facility subject to this section shall maintain records sufficient to demonstrate compliance with this section. The owner or operator shall maintain daily records of:

(1) The following parameters for each coating, thinner, other component or cleaning solvent as supplied:

(i) Name and identification number of the coating, thinner, other component or cleaning solvent.

(ii) Volume used.

(iii) Mix ratio.

(iv) Density or specific gravity.

(v) Weight percent of total volatiles, water, solids and exempt solvents.

(vi) The volume percent of solids for each coating used in the flat wood paneling coating process.

(vii) VOC content.

(2) The VOC content of each as applied coating or cleaning solvent.

(e) *Recordkeeping and reporting requirements.* The records required under subsection (d) shall be maintained for 2 years and shall be submitted to the Department on request.

(f) *Coating application methods.* A person subject to this section may not cause or permit the emission into the outdoor atmosphere of VOCs from a flat wood paneling surface coating process unless the coatings are applied using one or more of the following coating application methods:

- (1) Offset rotogravure coating.
- (2) Curtain coating.
- (3) Direct roll coating.
- (4) Reverse roll coating.
- (5) Hand brush or hand roller coating.
- (6) High volume-low pressure (HVLV) spray coating.
- (7) Other coating application method, if approved in writing by the Department prior to use.

(i) The coating application method must be capable of achieving a transfer efficiency equivalent to or better than that achieved by a method listed in paragraphs (1)-(6).

(ii) The request for approval must be submitted in writing.

(g) *Exempt coatings.* The VOC coating content standards in Table I do not apply to a coating used exclusively for determining product quality and commercial acceptance 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.

(h) *Work practice requirements for coating-related activities.* The owner or operator of a flat wood paneling surface coating process subject to this section shall comply with the following work practices for coating-related activities:

(1) Store all VOC-containing coatings, thinners and coating-related waste materials in closed containers.

(2) Minimize spills of VOC-containing coatings, thinners and coating-related waste materials and clean up spills immediately.

(3) Convey VOC-containing coatings, thinners and coating-related waste materials from one location to another in closed containers or pipes.

(4) Ensure that mixing and storage containers used for VOC-containing coatings, thinners and coating-related waste materials are kept closed at all times, except when depositing or removing these materials.

(i) *Work practice requirements for cleaning materials.* The owner or operator of a flat wood paneling surface coating process subject to this section shall comply with the following work practices for cleaning materials:

(1) Store all VOC-containing cleaning materials, waste cleaning materials and used shop towels in closed containers.

(2) Minimize spills of VOC-containing cleaning materials and waste cleaning materials and clean up spills immediately.

(3) Convey VOC-containing cleaning materials and waste cleaning materials from one location to another in closed containers or pipes.

(4) Ensure that mixing vessels and storage containers used for VOC-containing cleaning materials and waste cleaning materials are kept closed at all times, except when depositing or removing these materials.

(5) Minimize VOC emissions during cleaning of storage, mixing and conveying equipment.

Table I
Emission Limits of VOCs for Flat Wood Paneling Surface Coatings
Weight of VOC per Volume of Coating Solids, as Applied

Surface Coatings, Inks or Adhesives Applied to the Following Flat Wood Paneling Categories	lbs VOC per gallon coating solids	grams VOC per liter coating solids
Printed interior panels made of hardwood plywood or thin particleboard	2.9	350
Natural-finish hardwood plywood panels	2.9	350
Class II finishes on hardboard panels	2.9	350
Tileboard	2.9	350
Exterior siding	2.9	350



Pennsylvania Department of Environmental Protection

Rachel Carson State Office Building

P.O. Box 2063

Harrisburg, PA 17105-2063

October 6, 2009

Policy Office

717-783-8727

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

Re: Proposed Rulemaking: Flat Wood Paneling Surface Coating Operations
(25 Pa. Code, Chapters 121 and 129)

Dear Mr. Kaufman:

Enclosed is a copy of a proposed regulation for review and comment by the Independent Regulatory Review Commission pursuant to Section 5(a) of the Regulatory Review Act. The proposed rulemaking is scheduled for publication in the *Pennsylvania Bulletin* on October 17, 2009, with a 60-day public comment period and three public hearings. The Environmental Quality Board (EQB) adopted this proposal on September 15, 2009.

This proposed rulemaking amends 25 Pa Code, Chapters 121 and 129 to establish emission limits from the use and application of inks, coatings, adhesives and cleaning materials in flat wood paneling surface coating processes. Federal statutory or regulatory limits do not exist for VOC emissions from flat wood paneling surface coating operations; however the Clean Air Act and its implementing regulations require that State Implementation Plans (SIPs) for nonattainment areas must include "reasonably available control measures", including "reasonable available control technology" (RACT) for sources of emissions. The Clean Air Act further requires that for moderate ozone nonattainment areas, states must revise their SIP to include RACT for sources of VOC emissions covered by a Control Techniques Guideline (CTG) document issued by the EPA prior to the area's date of attainment. The Department reviewed the recommendations included in the 2006 CTG for flat wood paneling coatings and has determined that the measures are appropriate to be implemented in the Commonwealth as RACT for emissions from inks, coatings, adhesives and cleaning materials used in flat wood paneling surface coating processes. Therefore, the proposed rulemaking adopts the emission limits and other requirements of the U.S. EPA's 2006 CTG for flat wood paneling coatings. Adoption of the VOC emission requirements in the rulemaking is part of the Commonwealth's strategy, in concert with other Ozone Transport Region (OTR) jurisdictions, to further reduce the transport of VOC ozone precursors and ground-level ozone throughout the Ozone Transport Region and to attain and maintain the 8-hour ozone national ambient air quality standard. The regulation, when adopted by the EQB as a final-form rulemaking, will be submitted to the EPA as a revision to the State Implementation Plan (SIP).

In Pennsylvania, approximately 11 flat wood paneling surface coating operations collectively emit approximately 610 tons of VOCs per year. The EPA estimates that implementation of the



recommended control options for flat wood paneling surface coating processes will result in additional reductions of VOC emissions of approximately 20% for interior flat wood paneling coating operations and 80% for exterior siding operations. As a result of this rulemaking, it is anticipated 122 tons of VOC will be reduced annually from interior paneling coating operations, while an estimated 488 tons per year of VOC will be reduced from exterior coating operations.

The rulemaking was presented to the Air Quality Technical Advisory Committee at several meetings, most recently at the committee's May 28, 2009, meeting, where it concurred with the Department's recommendation to present the proposed amendments to the EQB for approval as a proposed rulemaking.

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

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

Sincerely,

A handwritten signature in cursive script, reading "Michele L. Tate".

Michele L. Tate
Regulatory Coordinator

Enclosure



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF POLICY

TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO
THE REGULATORY REVIEW ACT

I.D. NUMBER: 7- 447

SUBJECT: Flat Wood Paneling Surface Coating Operations

AGENCY: DEPARTMENT OF ENVIRONMENTAL PROTECTION

TYPE OF REGULATION

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

FILING OF REGULATION

DATE

SIGNATURE

DESIGNATION

10-6-09

D. Hunt

Majority Chair, HOUSE COMMITTEE ON
ENVIRONMENTAL RESOURCES & ENERGY

10/6/09

M. Beasen

Minority Chair, HOUSE COMMITTEE ON
ENVIRONMENTAL RESOURCES & ENERGY

10-6-09

B. Castelli

Majority Chair, SENATE COMMITTEE ON
ENVIRONMENTAL RESOURCES & ENERGY

10-6-09

A. Rybarczyk

Minority Chair, SENATE COMMITTEE ON
ENVIRONMENTAL RESOURCES & ENERGY

10/6/09

St. Helmut

INDEPENDENT REGULATORY REVIEW COMMISSION

ATTORNEY GENERAL (for Final Omitted only)

10/6/09

M. Lattin

LEGISLATIVE REFERENCE BUREAU (for Proposed only)

