

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: Randal (Duke) Adams, 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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RAF Final-form Flat Wood Paneling Surface Coating Processes IRRC 2801

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

The final-form rulemaking amends 25 *Pa. Code* Chapters 121 and 129 (relating to general provisions; and 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 final-form rulemaking adds § 129.52c (relating to control of VOC emissions from flat wood paneling surface coating processes) and amends §§ 129.51 and 129.66 (relating to general; and compliance schedules and final compliance dates). The final-form rulemaking also amends § 121.1 (relating to definitions) to add terms supporting § 129.52c. The final-form rulemaking, which 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-and welfare-based 8-hour ozone National Ambient Air Quality Standard (NAAQS) in this Commonwealth. If adopted as final regulation, the regulation 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: | <u>December 21, 2009</u> |
| B. The date or dates on which public meetings or hearings will be held: | <u>Nov. 17, 19 and 20, 2009</u> |
| C. The expected date of promulgation of the proposed regulation as a final-form regulation: | <u>4th Quarter 2010</u> |
| D. The expected effective date of the final-form regulation: | <u>4th Quarter 2010</u> |
| E. The date by which compliance with the final-form regulation will be required: | <u>January 1, 2012</u> |
| F. The date by which required permits, licenses or other approvals must be obtained: | <u>N/A</u> |

SECTION II: STATEMENT OF NEED

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

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

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

Statutory authority for this action comes from section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth 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 processes 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. The EPA provided a 1-year period for the required SIP submittal, making SIP revisions for the flat wood

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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 control measure will benefit the health and welfare of the approximately 12 million human residents and numerous animals, 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 final-form 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 final-form rulemaking applies 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 Commonwealth-wide implementation of the rulemaking assists in reducing VOC emissions from flat wood paneling surface coating processes locally and the resultant local formation of ground-level ozone and transport of VOC emissions and ground-level ozone to downwind states, and facilitates implementation and enforcement of the rulemaking within this Commonwealth.

Although the final-form 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 final-form 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 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

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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 processes 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 surface coating processes and 80% for exterior siding processes.

There are ten flat wood paneling surface coating facilities that could be potentially affected by this final-form rulemaking. (Previously, in the proposed Regulatory Analysis Form, there were eleven facilities, but one went out of business in 2008.) These ten facilities reported a total of 248 tons of VOC emissions to the Department for 2009. CraftMaster Manufacturing, Inc. indicated in its comment letter on the proposed rulemaking that it potentially has five flat wood paneling surface coating processes subject to the proposed regulation emitting 99.4 tons of VOC out of the total 402 tons of VOC emissions in 2008. (For 2009, CraftMaster reported 78 tons of VOCs from potentially subject flat wood paneling surface coating processes.) The remaining nine facilities emitted a total of 26 tons of VOCs in 2009. (Since the Department did not contact each of the remaining nine facilities, we are assuming that all 26 tons of VOC emissions are potentially subject flat wood paneling surface coating processes.)

CraftMaster also indicated that its anticipated reductions from possibly noncomplying surface coating processes would range from 5.3 to 9 tons per year. Should CraftMaster average the VOC contents within a single surface coating process, the facility might not have any noncompliant surface coating process lines and no additional emission reductions would be required at the facility. Based upon that assumption, the maximum anticipated annual VOC emission reductions as a result of this final-form rulemaking, assuming all emissions at the remaining nine facilities are from noncomplying flat wood paneling surface coating processes, range from approximately 5 tons (26 tons x 20%), if all subject processes are for interior paneling, to 21 tons (26 tons x 80%), if all subject processes are for exterior siding.

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 cardio respiratory 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

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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 Philadelphia area. 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.

Furthermore, 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). The EPA is reconsidering the March 2008 ozone NAAQS and proposed on January 19, 2010, to set a more protective 8-hour ozone primary standard between 0.060-0.070 ppm to provide increased protection for children and other at-risk groups. See 75 FR 2938. The EPA also proposed that the secondary ozone standard, which was set identical to the revised primary standard in the 2008 final rule, should instead be a new cumulative, seasonal standard. See 75 FR p. 2938. This seasonal standard is designed to protect plants and trees from damage occurring from repeated ozone exposure, which can reduce tree growth, damage leaves, and increase susceptibility to disease. The final revised ozone NAAQS is expected in August 2010.

The measures in the final-form 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 final-form 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 final-form amendments 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.

There are ten flat wood paneling surface coating facilities that could be potentially affected by this final-form rulemaking. The final-form rulemaking establishes emission limits, compliance monitoring provisions, recordkeeping and reporting requirements, as well as work practice requirements for cleaning materials, that could be applicable in whole or in part to each potentially affected flat wood paneling surface coating facility.

(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.

This Commonwealth has identified ten facilities potentially subject to the final-form rulemaking. These facilities reported a total of 248 tons of VOC emissions to the Department for 2009. CraftMaster Manufacturing indicated in its comment letter on the proposed rulemaking that it potentially has five flat

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wood paneling surface coating processes subject to the proposed regulation emitting 99.4 tons of VOC out of the total 402 tons of VOC emissions in 2008. (For 2009, CraftMaster reported 78 tons of VOCs from potentially subject flat wood paneling surface coating processes.) The remaining nine facilities emitted a total of 26 tons of VOCs in 2009. (Since the Department did not contact each of the remaining nine facilities, we are assuming that all 26 tons of VOC emissions are potentially subject flat wood paneling surface coating processes.)

These facilities are listed in the following table along with their reported 2008 and 2009 VOC emissions.

Flat Wood Paneling Coating Facility	Total Reported 2008 VOC Emissions, tons	Total Reported 2009 VOC Emissions, tons
CRAFTMASTER MFG/TOWANDA MILL	402.4	222.9
ARMACLAD DOORS & WINDOWS LLC/QUINCY PLT	9.41	4.87
MASONITE CORP/NORTHUMBERLAND DOOR PLT	11.49	11.36
EXCEL HOMES LLC/AVIS AMER HENRY ST PLT	8.19	Out of business
RITZ CRAFT CORP/MIFFLINBURG PLT	8.31	6.4
DELUXE BLDG SYS INC/BERWICK PLT	1.64	0.82
BELLES SPRINGS STRUCTURES LLC/LAMAR TWP PLT	**	**
APEX HOMES/MIDDLECREEK	6.12	2.08
PROFESSIONAL BLDG SYS/MIDDLEBURG PLT	**	**
EXCEL HOMES LLC/LIVERPOOL – Juniata County	**	**
Jeldwen Inc – Pottsville	**	**
Total combined VOC emissions - tons	448	248

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

The Department assumes that the economy, and not any increased efficiency or control, is the reason for the drop in emissions from 2008 to 2009 across all ten facilities. Following that logic, the emissions will increase when the economy improves, and the environmental impact of the total emission reductions will increase.

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 final-form requirements include the cost of using alternative product formulations, including low VOC-content or water-based inks, coatings and adhesives, and low VOC-content 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 processes is estimated to range from \$1900 for interior paneling coating processes to \$2600 for exterior siding coating processes per ton of VOC emissions reduced. This range is based on the use of low VOC-content coatings for control.

According to CraftMaster, the facility has five potentially subject flat wood paneling surface coating

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processes with total VOC emissions of 99.4 tons in 2008 (and 78 tons in 2009). CraftMaster stated in its comment letter that their emissions could potentially be reduced by 5.3 (reducing VOC content to 2.9 lbs/gallon coating solids) to 9.0 (using a control device at 90% capture and control efficiency) tons per year. This estimate was considering the emissions from the one potentially noncompliant interior door facing panel surface coating process. The estimated annual cost for the owners or operators of CraftMaster for changing the company's noncomplying interior flat wood paneling coating process over to compliant material would be \$10,070 (5.3 tons VOC emissions reduced x \$1900/ton) (using the costs provided by the EPA in the CTG) from this final-form rulemaking. Should CraftMaster average the VOC contents within a single surface coating process line, the facility might not have any noncompliant surface coating process lines and no additional emission reductions would be required at the facility. CraftMaster has other complying interior and exterior siding coating processes, so no additional VOC emission reductions or costs would be expected from these processes.

The remaining nine listed facilities emitted a total of 26 tons of VOCs in 2009. The maximum anticipated additional annual VOC emission reductions as a result of this final-form rulemaking, assuming all emissions at these facilities are from noncomplying flat wood paneling surface coating processes, range from approximately 5 tons (26 tons x 20%) if all subject processes are for interior paneling to 21 tons (26 tons x 80%) if all subject processes are for exterior siding. The maximum anticipated additional annual costs to the owners or operators of these nine facilities for noncomplying flat wood paneling coating processes would range from \$9,500 (5 tons VOC emissions reduced x \$1900/ton reduced) to \$54,600 (21 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 final-form rulemaking is expected to impose no additional direct regulatory costs on local governments.

(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 Department of Environmental Protection will provide any necessary outreach and assistance to the regulated community. No new resources are anticipated to be necessary to provide these services.

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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 10/11	FY +1 Year 11/12	FY +2 Year 12/13	FY +3 Year 13/14	FY +4 Year 14/15	FY +5 Year 15/16
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	\$0	\$0	\$0	\$0	\$0	\$0
Remaining 9 facilities	\$9,500 to \$54,600	\$9,500 to \$54,600	\$9,500 to \$54,600	\$9,500 to \$54,600	\$9,500 to \$54,600	\$9,500 to \$54,600
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	\$0	\$0	\$0	\$0	\$0	\$0
Total Costs Remaining 9 facilities	\$9,500 to \$54,600	\$9,500 to \$54,600	\$9,500 to \$54,600	\$9,500 to \$54,600	\$9,500 to \$54,600	\$9,500 to \$54,600
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 (07/08)	FY-2 (08/09)	FY-1 (09/10)	Current FY (10/11)
Environmental Program Management (161-10382)	\$39,685,000	\$37,664,000	\$31,100,000	\$29,357,000
Clean Air Fund Major Emission Facilities (215-20077)	\$18,353,000	\$22,660,000	\$21,877,000	\$24,732,000
Clean Air Fund Mobile and Area Facilities (233-20084)	\$5,855,000	\$7,949,000	\$6,121,000	\$6,382,000

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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 final-form amendments may also reduce ambient outdoor and indoor concentrations of HAPs. The estimated total annual costs to the owners or operators of the remaining nine listed potentially facilities range from approximately \$9,500 to \$54,600, depending on the type of flat wood paneling surface coating processes. These costs are negligible compared to the improved health and environmental benefits that will be gained from this final-form 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 final-form rulemaking was discussed with the AQTAC on June 17, 2010. The AQTAC concurred with the Department's recommendation to present the final-form amendments to the Board for approval for publication as a final-form rulemaking. The Department also consulted with the Citizens Advisory Council and with the Small Business Compliance Advisory Committee on July 28, 2010.

(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 processes.

(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 final-form 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 surface coating processes are required to implement RACT or equivalent control measures. The Commonwealth will not be at a disadvantage with the other states in the OTR.

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

No.

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(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 processes will 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, unless a longer period is specified by § 127.511(b)(2), since facilities affected by this rulemaking may also be Title V facilities. The records shall be submitted to the Department upon written request. Persons claiming the small quantity exemption or use of exempt coating will be required to keep records demonstrating the validity of the exemption. Persons seeking to comply through the use of add-on controls will 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.

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

By: _____
(Deputy Attorney General)

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 21, 2010

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

(Deputy General Counsel) SEP 22 2010
(~~Chief Counsel - Independent Agency~~)
(~~Strike inapplicable title~~)

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

NOTICE OF FINAL RULEMAKING

DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD

Flat Wood Paneling Surface Coating Operations

25 Pa. Code, Chapters 121 and 129

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

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

The final-form rulemaking amends Chapter 129 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 amendments add § 129.52c (relating to control of VOC emissions from flat wood paneling surface coating processes) and revise §§ 129.51 and 129.66 (relating to general; and compliance schedules and final compliance dates). The final-form rulemaking also amends § 121.1 (relating to definitions).

This order was adopted by the Board at its meeting on September 21, 2010.

A. Effective Date

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

B. Contact Persons

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C. Statutory Authority

This final-form 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 final-form rulemaking is to reduce VOC emissions from flat wood paneling surface coating processes. 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 (NO_x) in the presence of sunlight.

The final-form 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 coatings 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, NO_x, 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 eight 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 area. 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.

Furthermore, in March 2008, the EPA lowered the standard to 0.075 ppm averaged over eight 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. See 73 FR 16436 (March 27, 2008). The EPA is reconsidering the March 2008 ozone NAAQS and proposed on January 19, 2010, to set a more protective 8-hour ozone primary standard between 0.060 and 0.070 ppm to provide increased protection for children and other at-risk groups. See 75 FR 2938. The EPA also proposed that the secondary ozone standard, which was set identically to the revised primary standard in the 2008 final rule, should instead be a new cumulative, seasonal standard. See 75 FR 2938. This seasonal standard is designed to protect plants and trees from damage occurring from repeated ozone exposure, which can reduce tree growth, damage leaves, and increase susceptibility to disease. The final revised ozone NAAQS is expected in October 2010.

There are no Federal statutory or regulatory limits for VOC emissions from flat wood paneling surface coating processes. State regulations to control VOC emissions from flat wood paneling surface coating processes 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 (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, § 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 § 183(e) list and, in 2006, issued a CTG for flat wood paneling coatings. See 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 these product categories in ozone nonattainment areas. See 71 FR 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 final-form rulemaking will 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 processes 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 final-form rulemaking is required under the CAA and is reasonably necessary to attain and maintain the health-based 8-hour ozone NAAQS and to satisfy related Clean Air Act requirements in this Commonwealth. This final-form rulemaking will be submitted to the EPA as a revision to the SIP.

The final-form rulemaking was discussed with the Air Quality Technical Advisory Committee (AQTAC) on June 17, 2010. The AQTAC concurred with the Department’s recommendation to present the final-form amendments to the Board for approval for publication as a final regulation. The Department also consulted with the Citizens Advisory Council and the Small Business Compliance Advisory Committee (SBCAC) on July 28, 2010. Neither the CAC nor the SBCAC had concerns.

E. Summary of Regulatory Requirements; and Changes to the Proposed Rulemaking

The final-form rulemaking adds definitions of the following terms to § 121.1 to support the addition of § 129.52c: “Class II hardboard paneling finish,” “decorative interior panel,” “engineered wood panel product,” “exterior siding,” “exterior trim,” “flat wood paneling coating,” “flat wood paneling product,” “hardboard,” “hardwood plywood,” “MDF-medium density fiberboard,” “natural finish hardwood plywood panel,” “particleboard,” “premium

interior wall paneling product,” “plywood,” “printed interior panel,” “thin particleboard,” “tileboard” and “waferboard.”

The final-form rulemaking amends § 129.51(a) to extend its coverage to flat wood paneling surface coating processes covered by this final-form rulemaking. Section 129.51(a) provides an alternative method for owners and operators of facilities to achieve compliance with air emission limits.

The final-form rulemaking adds § 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 emission limits and other requirements of this section apply 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. Subsection (a) specifies that § 129.52c does not apply to the following: (1) field-applied coating processes, because these are regulated under Chapter 130, Subchapter C (relating to architectural and industrial maintenance coatings); coating processes regulated under §§ 129.101-129.107 (relating to wood furniture manufacturing operations); and (3) coating processes regulated under § 129.52(f) and § 129.52 Table I, Category 11 (relating to surface coating processes; and wood furniture manufacturing operations).

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.

Subsection (c) establishes VOC emission limits. The compliance date was changed based on the anticipated publication date of the final-form rulemaking. Beginning January 1, 2012, a person may not cause or permit the emission into the outdoor atmosphere of VOCs from a flat wood paneling surface coating process, unless one of two limitations is met. The first limitation is that the VOC content of each as applied coating is equal to or less than the limit specified in Table I in § 129.52c. The final-form rulemaking adds that the VOC content requirement of Table I for all materials used on a single process line may be met by using a daily, weighted-average approach. The final-form rulemaking includes an equation for calculating the weighted average. The second limitation is that 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). This limitation also addresses the overall efficiency of a control system, as determined through the use of the sampling and testing methods in *25 Pa. Code* Chapter 139 (relating to sampling and testing).

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.

Subsection (e) contains a change to the proposed recordkeeping and reporting requirements. The proposed rulemaking required that records be maintained for 2 years. The final-form provision requires that records be maintained for 2 years unless a longer period is required by 25 Pa. Code § 127.511(b)(2) (relating to monitoring and related recordkeeping and reporting requirements). Additionally, § 129.52c(e) has been amended at final to clarify that records shall be submitted to the Department upon receipt of a written request.

Under 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 the methods listed in this subsection, except that 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. Three coating application methods have been added to the list for clarity: airless spray coating, air-assisted airless spray coating, and electrostatic coating. The other methods listed are rotogravure coating, curtain coating, direct roll coating, reverse roll coating, hand brush or hand roller coating, or high volume-low pressure spray coating.

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 § 129.52c, if the quantity of coating used does not exceed 50 gallons per year (gpy) for a single coating and a total of 200 gpy 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.

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

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

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.

This final-form rulemaking also amends § 129.66 to extend its coverage to this rulemaking and the two other recently published surface coating CTG rulemakings namely the large appliance and metal furniture surface coating processes final-form rulemaking (published September 11, 2010) and the paper, film and foil surface coating processes rulemaking (published Date). (*Editor's note:* Date is date of publication, which is expected to precede publication of this rulemaking by several weeks.) The section will be similarly updated in later CTG rulemakings. Existing § 129.66 establishes a one-year compliance date for owners or operators of a source newly subject to the requirements of § 129.52, the existing surface coatings regulation, as a result of revised applicability requirements. The amendment in the final-form rulemaking is intended to ensure that this flexibility is extended to owners and operators of sources newly subject to the expanding collection of surface coating regulations resulting from these CTG rulemakings. The amendment will allow compliance for sources newly subject to the

requirements because of revised applicability requirements within one year or by the compliance date specified in the new regulation, whichever is later.

F. Summary of Major Comments and Responses

The Board approved publication of the proposed rulemaking at its meeting of September 15, 2009. The proposed rulemaking was published at 39 *Pa.B.* 6061 (October 17, 2009). Three hearings were held on November 17, 19, and 20, 2009, in Harrisburg, Norristown and Pittsburgh, respectively. The public comment period closed on December 21, 2009.

Public comments were received from one commentator, CraftMaster Manufacturing, Inc. The Independent Regulatory Review Commission (IRRC) also provided comments.

Other regulatory programs

CraftMaster submitted several comments regarding concurrent applicability of the EPA's 2003 Wood Building Products (WBP) National Emission Standard for Hazardous Air Pollutants (NESHAP). The Board responds that the final-form rulemaking is based on the 2006 EPA CTG for Flat Wood Paneling Coatings; the WBP NESHAP does not guide or override this rulemaking, nor do the MACT, BAT or NSR programs. While there may be overlapping regulation of certain product subcategories, a facility's surface coating processes will be subject to the final-form rulemaking if the operation is for one of the product types that is defined in § 121.1 and has a limit set in § 129.52c, Table I. State regulations to control VOC emissions from flat wood paneling surface coating processes with RACT are required under the CAA. The EPA's WBP NESHAP is applicable only to major sources of hazardous air pollutants (HAP), and this final-form rulemaking is applicable to processes that have actual VOC emissions of 15 lbs/day or more from all flat wood paneling operations listed in Table 1, including cleaning operations. Therefore, smaller facilities would be subject to the final-form rulemaking and, by reducing VOCs, may also be reducing a significant amount of HAPs.

CraftMaster also suggested that surface coating operations already subject to the Maximum Available Control Technology (MACT) or Best Available Technology (BAT) programs, or to the emissions offset provisions of Pennsylvania's New Source Review (NSR) program, should not be subject to the final-form rulemaking. The Board responds that MACT regulations are for controlling HAPs and VOCs that are HAPs, not for controlling all VOCs as precursors of ground-level ozone, as the final-form rulemaking does. With regard to BAT, surface coating operations that have been subject to BAT may also meet the requirements of the final-form rulemaking because the BAT determined at the time of the review may be as stringent as, or more stringent than, the requirements of this final-form rulemaking. However, if the BAT is less stringent than the requirements of this final-form rulemaking, the surface coating operation must comply with the more stringent requirements. With regard to NSR, the EPA accepts the Commonwealth's BAT determinations and recent NSR applicability determinations as fulfillment of RACT for facilities that are *not* covered by a CTG, for which controls are installed after December 9, 1997 (62 FR 64722), the date that the EPA approved the Department's NSR program, because this date draws the line between an existing source subject to RACT and a new source subject to NSR.

VOC content limit

CraftMaster commented that the "as applied" VOC limit in Table I should be applicable to an entire surface coating operation (SCO) or category of Flat Wood Paneling Product processed on a SCO, on a weighted-average basis of all coatings applied, rather than to each individual coating. The Board agrees that the weighted-average approach is acceptable. The final-form rulemaking has been revised to add a provision under § 129.52c(c)(1) that allows for calculating a daily weighted average within a single surface coating process line. Also, demonstrating equivalency with the requirements in § 129.52c is allowed under § 129.51(a) in the final-form rulemaking. This weighted-average approach could be specified in a plan approval application and memorialized in a permit under the equivalency provision if a company desires to proceed in that fashion and obtains permit approval.

CraftMaster commented that a facility should be able to use "as purchased" VOC data instead of calculating "as applied" data to demonstrate compliance with the VOC content limits of Table I. Calculation of "as applied" should be limited to a situation where one or more components of a blend are not a "complying coating" on its own. The Board agrees that "as purchased" VOC data can be used under specific circumstances instead of "as applied" data. If there is no thinning or mixing of additional regulated VOCs with the as purchased material, but only blending of two or more compliant coatings (each less than 2.9 lbs VOC/gal coating solids), the company could make a statement in its recordkeeping documents to this effect and not provide additional calculations. However, if mixing of thinners or other noncompliant VOC-containing coatings with the "as purchased" material occurs, the "as applied" coating content must be calculated. The Department reserves its right, of course, to sample a coating, even if the company has provided a written statement that the coating is compliant as mixed.

Recordkeeping

Both CraftMaster and IRRC commented on the daily recordkeeping requirement. CraftMaster stated that it is an unnecessary burden with no known benefit and that the company should be allowed to continue on its monthly recordkeeping basis. IRRC requested that the Board explain the basis and need for requiring daily recordkeeping. Both commented on the cost of daily recordkeeping. The Board disagrees with the commentators' comments regarding recordkeeping. The Board is requiring daily recordkeeping because the applicability for the final-form rulemaking is based on emissions equal to or greater than 15 lbs/day of VOC before control. Therefore, in order to demonstrate inclusion or exemption from the regulation, and to enable the Department to ascertain compliance at any time, daily records must be kept. Furthermore, since daily records will be necessary in order to satisfy the requirements for monthly records, the recordkeeping burden should be minimal. The Board disagrees that there are any additional costs associated with daily recordkeeping.

IRRC commented that subsection (e) is unclear as to what format the records should be maintained, and that this should be clarified in the final-form regulation. The Board respectfully disagrees. Requiring regulated facilities to maintain records is a standard requirement. This requirement is found in many Board-approved regulations, including § 129.52(g) (relating to surface coating processes), for instance. The owners and operators of regulated sources have not

had difficulty understanding or complying with this requirement. No changes have been made to the final-form rulemaking concerning format in response to this comment.

IRRC commented that the Board should clarify whether submission of the records required by § 129.52c(e) will be requested by the Department in writing or orally. Final-form § 129.52c(e) has been revised to specify that the records shall be submitted to the Department upon receipt of a written request.

Compliance methods and related costs

CraftMaster stated that airless sprays are used in many instances and that, therefore, the requirements regarding coating application methods should be removed. IRRC requested that the Board consider adding airless sprays to the list of acceptable coating application methods. The Board agrees that airless sprays can be used for flat wood paneling surface coating processes. The proposed rulemaking would have allowed other coating application methods to be approved in § 129.52c(f)(7) with written requests, if the method would achieve an equivalent or better transfer efficiency than those in paragraphs (1)-(6); however, for ease of permitting and enforcement, the Board has added airless, air-assisted airless and electrostatic coating methods to §129.52c(f) in the final-form rulemaking.

CraftMaster estimated that for one surface coating operation the capital costs to install a Regenerative Thermal Oxidizer (RTO) control device would be \$3.46 million, with annual costs of \$1.51 million. CraftMaster commented that the cost per ton of VOCs controlled is \$43,000, which they state is far greater than any known RACT cost-effectiveness criteria, and that NOx emissions associated with operating the RTO are estimated at 4.7 tons per year. IRRC asked that the Board address in the Order the fiscal impact concerns raised by CraftMaster. The Board appreciates the work CraftMaster staff undertook to determine the exact cost of installation of a control device. The 2006 flat wood paneling CTG does not address costs for RTOs or other add-on control devices, only costs for lower VOC-content coatings. The estimated annual cost for the owners or operators of CraftMaster for changing the company's noncomplying interior flat wood paneling coating operations over to compliant material would be \$10,070 (5.3 tons VOC emissions reduced x \$1900/ton), using the emission reductions provided by CraftMaster in its comment letter and costs provided by the EPA in the CTG. The final-form rulemaking allows but does not require the installation of an add-on control device to meet the emission limitations. It is a facility owner or operator's choice whether to use compliant coatings or add-on controls. Compliant coatings are available. The Board notes that if CraftMaster should average the VOC contents of all materials used within a single surface coating process line, the facility might not have any noncompliant surface coating lines and no additional emission reductions would be required at the facility.

CraftMaster commented that the requirement to fully enclose coatings, coating-related wastes and coating-related clean-up materials handling systems should not be applicable in all instances. CraftMaster asserts that it is not technically feasible or cost effective to enclose materials where coatings are water-based "complying coatings," the cleaning material is limited to water and wastes are treated onsite. IRRC commented that the Board should explain why it is necessary to fully enclose all coatings and coating-related waste materials. The Board is not requiring a facility owner or operator to fully enclose all coatings, coating-related wastes and coating-related

clean-up materials handling systems. Neither the proposed nor final-form rulemaking requires this. The requirements are to: (1) store VOC-containing materials in closed containers; (2) minimize spills of VOC-containing materials and clean up spills immediately; (3) convey VOC-containing materials from one location to another in closed pipes or containers; (4) ensure that mixing and storage containers used for VOC-containing materials are kept closed at all times, except when depositing or removing these materials; and (5) minimize VOC emissions during cleaning of storage, mixing and conveying equipment. The work practice requirements for coating-related activities and for cleaning materials in the final-form rulemaking are taken from the 2006 CTG. The Board does not anticipate increased cost due to the implementation of work practice standards for cleaning materials. 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. The EPA did not estimate any costs associated with work practice standards in the CTG. On page 7 of the CTG, the EPA states: "To provide structure and consistency to their work practices, facilities can develop and implement a work practice plan. The work practice plan is a proven and traditional approach for cleaning that is easily adopted and managed by various industries, including flat wood paneling coatings." (*Emphasis added*)

Definitions

IRRC commented on the second sentences in the definitions of the terms "*decorative interior panel*," "*exterior siding*" and "*exterior trim*." IRRC stated that these sentences contained nonregulatory language and would be more appropriate in this Order than in the definition. The Board respectfully disagrees. The sentences provide useful information that will help the regulated community, environmental community and Department staff be better able to identify the type of product they are dealing with. No changes were made to the final-form rulemaking as a result of this comment.

IRRC commented on the definitions of "*MDF-Medium density fiberboard*," which contains the phrase "engineered wood panel product," and "*tileboard*," which contains the phrase "premium interior wall paneling product." IRRC recommended that the Board define these terms in the final-form rulemaking to improve clarity. The Board agrees and has amended § 121:1 in the final-form rulemaking to include definitions for these terms.

G. Benefits, Costs and Compliance

Benefits

Implementation of the final-form rulemaking will 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 final-form rulemaking is 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 final-form 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 will 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 processes and 80% for exterior siding processes.

In this Commonwealth, approximately 10 flat wood paneling surface coating operations combined to emit an estimated total of 248 tons of VOCs in 2009. The highest emitting of these facilities indicated in its comments on the proposed rulemaking that it potentially has five flat wood paneling surface coating operations subject to the regulation that emitted 99.4 tons of VOC in 2008. This company also reported 78 tons of VOCs to the Department in 2009. The remaining nine facilities emitted a total of 26 tons of VOCs in 2009. This highest-emitting facility indicated that its anticipated reductions from possibly noncomplying surface coating operations would range from 5.3 to 9 tons per year. Should this company average the VOC contents within a single surface coating process line, the facility might not have any noncompliant surface coating process lines, and no additional emission reductions would be required at the facility. Based upon that assumption, and assuming all emissions at the remaining nine facilities are from noncomplying flat wood paneling surface coating processes, the maximum anticipated additional annual VOC emission reductions as a result of this final-form rulemaking are approximately 5 tons (26 tons x 20%) if all subject processes are for interior paneling to 21 tons (26 tons x 80%) if all subject processes are for exterior siding.

Compliance Costs

The costs of complying with the final-form new requirements include the cost of using alternative product formulations, including low VOC-content or water-based inks, coatings and adhesives, and low VOC-content or water-based cleanup solvent products, and the cost of using 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 processes is estimated to range from \$1,900 for interior paneling coating processes to \$2,600 for exterior siding coating processes per additional 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 ranges from \$9,500 (5 tons VOC emissions reduced x \$1,900/ton reduced) to \$54,600 (21 tons VOC emissions reduced x \$2,600/ton reduced). These costs are negligible compared to the improved public health and environmental benefits that will 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 and waste.

Compliance Assistance Plan

The Department plans to educate and assist the public and regulated community in understanding the new 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 processes will 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 at least 2 years, and in some cases 5 years, and must be submitted to the Department upon written request. Persons claiming the small quantity exemption or use of exempt coating are required to keep records demonstrating the validity of the exemption. Persons seeking to comply through the use of add-on controls are required to meet the applicable reporting requirements specified in Chapter 139.

H. 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 the owners and operators of facilities that permanently achieve or move beyond compliance. This regulation has incorporated the following pollution prevention incentives:

The final-form 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 final-form 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 final-form rulemaking provides as one compliance option that coatings 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 will 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.

I. 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.

J. 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 the proposed rulemaking, published at 39 *Pa.B.* 6061, to IRRC and to the House and Senate Environmental Resources and Energy Committees (Committees) for review and comment.

Under section 5(c) of the Regulatory Review Act, IRRC and the Committees were provided copies of the comments received during the public comment period, as well as other documents when requested. In preparing the final-form rulemaking, the Department considered the comments received from IRRC, the Committees and the public.

Under section 5.1(j.2) of the Regulatory Review Act (71 P.S. § 745.5a(j.2)), on (date), this final-form rulemaking was deemed approved by the Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on (date), and approved the final-form rulemaking.

K. 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 Pennsylvania Code* §§ 7.1 and 7.2.
- (2) At least a 60-day public comment period was provided as required by law, and all comments were considered.
- (3) These regulations do not enlarge the purpose of the proposal published at 39 *Pa.B.* 6061.
- (4) These regulations are necessary and appropriate for administration and enforcement of the authorizing acts identified in Section C of this order.
- (5) These regulations are necessary to attain and maintain the ozone National Ambient Air Quality Standards (NAAQS) and to satisfy related Clean Air Act requirements.

L. Order of the Board

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

(a) The regulations of the Department of Environmental Protection, 25 *Pennsylvania Code*, Chapters 121 and 129 are amended by amending §§ 121.1, 129.51 and 129.66, and adding § 129.52c to read as set forth in Annex A.

(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 Committees as required by the Regulatory Review Act (71 P. S. §§ 745.1—745.12).

(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) These final-form amendments will be submitted to the U.S. EPA as an amendment to the Pennsylvania SIP.

(f) This order shall take effect immediately upon publication in the *Pennsylvania Bulletin*.

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.

* * * * *

ENGINEERED WOOD PANEL PRODUCT- A DERIVATIVE WOOD PRODUCT THAT IS MANUFACTURED BY BINDING TOGETHER THE STRANDS, PARTICLES, FIBERS OR VENEERS OF WOOD WITH ADHESIVES, RESINS, OTHER COATINGS OR ADDITIVES, OR A COMBINATION OF THESE, TO FORM A COMPOSITE MATERIAL. THE MANUFACTURING PROCESS MAY ALSO USE HEAT OR PRESSURE, OR BOTH, TO FORM THE PRODUCT. THE PRODUCT IS MANUFACTURED TO PRECISE DESIGN SPECIFICATIONS WHICH ARE TESTED TO MEET NATIONAL OR INTERNATIONAL STANDARDS.

* * * * *

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.

FLAT WOOD PANELING PRODUCT-A WOOD PANELING PRODUCT USED IN CONSTRUCTION INCLUDING DECORATIVE INTERIOR PANELS, EXTERIOR SIDING AND TILEBOARD (CLASS I HARDBOARD).

* * * * *

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.

* * * * *

PREMIUM INTERIOR WALL PANELING PRODUCT- A PRODUCT THAT HAS MORE STRINGENT PRODUCT PERFORMANCE REQUIREMENTS (NAMELY, ADHESION AND HARDNESS STANDARDS; AND HOUSEHOLD STAIN, SCRUB AND

MOISTURE RESISTANCE, WHILE MAINTAINING A RELATIVELY SMOOTH APPEARANCE) COMPARED TO STANDARD INTERIOR WALL PANELING.

* * * * *

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~~], AND WHICH 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. **FIELD-APPLIED COATINGS ARE REGULATED UNDER CHAPTER 130, SUBCHAPTER C (RELATING TO ARCHITECTURAL AND INDUSTRIAL MAINTENANCE COATINGS).**

(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~~ **2012**, 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~~ **2012**, 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:

$$VOC = (W_o)(D_c)/V_n$$

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 as applied coating

(ii) THE VOC CONTENT LIMITS OF TABLE I MAY BE MET BY CALCULATING A WEIGHTED-AVERAGE OF THE VOC CONTENT OF ALL COATINGS USED ON A SINGLE FLAT WOOD PANELING SURFACE COATING PROCESS LINE EACH DAY. THE DAILY WEIGHTED AVERAGE SHALL BE CALCULATED USING THE FOLLOWING EQUATION:

$$VOC_w = \frac{\sum_{i=1}^n C_i V_i}{V_T}$$

WHERE:

VOC_w=THE DAILY WEIGHTED AVERAGE VOC CONTENT, AS APPLIED, OF ALL COATINGS USED ON A SINGLE FLAT WOOD PANELING SURFACE COATING PROCESS LINE, IN LB VOC/GAL OF COATING SOLIDS

n=THE NUMBER OF DIFFERENT COATINGS USED EACH DAY ON THE SINGLE FLAT WOOD PANELING SURFACE COATING PROCESS LINE

V_i=THE VOLUME SOLIDS FOR EACH COATING, AS APPLIED, USED EACH DAY ON THE SINGLE FLAT WOOD PANELING SURFACE COATING PROCESS LINE, IN GALLONS

C_i=THE VOC CONTENT OF EACH COATING, AS APPLIED, USED EACH DAY ON THE SINGLE FLAT WOOD PANELING SURFACE COATING PROCESS LINE, IN LB VOC/GAL COATING SOLIDS

V_i=THE TOTAL VOLUME OF SOLIDS FOR ALL COATINGS COMBINED, AS APPLIED, USED EACH DAY ON THE SINGLE FLAT WOOD PANELING SURFACE COATING PROCESS LINE, IN GALLONS

(iii) 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** :

(1) MAINTAINED for 2 years ~~**and shall be submitted**~~ , **UNLESS A LONGER PERIOD IS REQUIRED BY § 127.511(b)(2) (RELATING TO MONITORING AND RELATED RECORDKEEPING AND REPORTING REQUIREMENTS).**

(2) SUBMITTED to the Department ~~**on**~~ **UPON RECEIPT OF A WRITTEN** 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 (HVLP) spray coating.

(7) **AIRLESS SPRAY COATING.**

(8) AIR-ASSISTED AIRLESS SPRAY COATING.

(9) ELECTROSTATIC COATING.

(10) 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)**~~ **(1)-(9)**.

(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

* * * * *

§ 129.66. Compliance schedules and final compliance dates.

The owner or operator of a source newly subject to the requirements of §§ 129.52—129.52c, §§ 129.59—129.61 or §§ 129.67—129.69 as a result of revised applicability requirements of this title relating to the control of VOC shall achieve compliance with the applicable emission limitations within 1 year of the date of publication of the notice of final adoption of this requirement in the *Pennsylvania Bulletin*. Newly subject sources or facilities are those which were not subject to the emission limitations because they emitted less than the cutoff levels or operated at de minimis production levels prior to the date of publication of the limitation in the *Pennsylvania Bulletin*, but are now subject to the standard because they meet or exceed the cutoff levels contained in § 129.52(a), § 129.52a(a), § 129.52b(a), § 129.52c(a) or § 129.69 [~~(relating to surface coating processes; and manufacture of pneumatic rubber tires)~~]. The date of adoption of the applicable emission standard for these previously unregulated sources will be determined to be the date that the applicable cutoff levels contained in § 129.52, § 129.52a, § 129.52b, § 129.52c or § 129.69 are published in the *Pennsylvania Bulletin*.

CONTROL OF VOC EMISSIONS FROM
FLAT WOOD PANELING
SURFACE COATING PROCESSES
25 Pa. Code Chapters 121 and 129
39 Pa.B. 6061 (October 17, 2009)
Environmental Quality Board Regulation #7-447
(Independent Regulatory Review Commission #2801)

Comment and Response Document

Flat Wood Paneling Surface Coating Processes

On October 17, 2009, the Environmental Quality Board (Board, EQB) published a *Pennsylvania Bulletin* notice of public hearings and written comment period on the proposed amendments to Chapters 121 and 129 (relating to general provisions; and standards for sources) for flat wood paneling surface coating processes (39 Pa.B. 6061). The proposed rulemaking would amend Chapter 129 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).

The comment period opened on October 17, 2009, and closed on December 21, 2009. Three public hearings were held on the proposed rulemaking as follows:

November 17, 2009 2:00 PM	Department of Environmental Protection Southcentral Regional Office Susquehanna Room A 909 Elmerton Avenue Harrisburg, PA 17110
November 19, 2009 2:00 PM	Department of Environmental Protection Southeast Regional Office Delaware Conference Room 2 East Main Street Norristown, PA 19401
November 20, 2009 2:00 PM	Department of Environmental Protection Southwest Region Office Waterfront A & B Conference Room 400 Waterfront Drive Pittsburgh, PA 15222-4745

This document summarizes the written comments received during the public comment period as well as those received from the Independent Regulatory Review Commission (IRRC). There was no testimony received during the public hearings. The Board invited each commentator to prepare a one-page summary of the commentator's comments. One one-page summary was submitted to the Board for this rulemaking. Each comment is listed with the identifying commentator number for each commentator that made the comment. A list of the commentators, including name and affiliation (if any), can be found at the beginning of this document. The final-form rulemaking, if adopted as final-form regulation, will be submitted to the U.S. Environmental Protection Agency (EPA) as a revision to the State Implementation Plan (SIP).

Table of Commentators for the Environmental Quality Board
Flat Wood Paneling Surface Coating Processes Rulemaking #7-447
(IRRC #2801)

ID	Name/Address	Submitted one page Summary for distribution to EQB	Provided Testimony	Requested Copy of Final Rulemaking following EQB Action
1	Michael L. Steele Environmental Engineer CraftMaster Manufacturing, Inc. Towanda, PA 18848	√		
2	Independent Regulatory Review Commission (IRRC) 333 Market Street, 14 th Floor Harrisburg, PA 17101			

Acronyms used in this Comment/Response Document

- BAT – Best Available Technology
- CTG – Control Techniques Guideline
- HAP – Hazardous Air Pollutant
- MACT – Maximum Achievable Control Technology
- NESHAP – National Emission Standard for Hazardous Air Pollutant
- NSR – New Source Review
- OTR – Ozone Transport Region
- RACT – Reasonably Available Control Technology
- SCO – Surface Coating Operation
- SIP – State Implementation Plan
- WBP – Wood Building Product

Applicability

1. **Comment:** The Department needs to clarify what Surface Coating Operations (SCOs) would be subject to the proposed Reasonably Available Control Technology (RACT) rulemaking. Specifically, what Wood Building Product (WBP) subcategories from the 2003 WBP National Emission Standard for Hazardous Air Pollutants (NESHAP) § 63.4681(a)(1)-(5) would be subject to the proposed regulation? (1)

Response: The Department’s final-form rulemaking is based on the 2006 EPA Control Techniques Guidelines (CTG) for Flat Wood Paneling Coatings, not the WBP NESHAP. The CTG states, “This CTG applies to facilities that apply flat wood paneling coatings that emit at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls. Flat wood paneling coatings means wood paneling products that are any interior, exterior or tileboard (class I

hardboard) panel to which a protective, decorative, or functional material or layer has been applied.”

A facility’s surface coating processes would be subject to the final-form rulemaking if the operation is for one of the product types that is defined in § 121.1 and has a limit set in § 129.52c, Table I (relating to emission limits of VOCs for flat wood paneling surface coatings).

The Department asks that CraftMaster evaluate its products in light of the definitions and applicability requirements included in the final-form rulemaking.

2. Comment: Based on Table I and the definitions of § 121.1, the proposed RACT would seem to apply to subcategories 3 and 4 of the 2003 WBP NESHAP and to the Siding and Trimboard products of subcategory 5 of the 2003 WBP NESHAP. The activities under subcategories 1 and 2 and the “primed doorskin” product under subcategory 5 would not be subject to the proposed RACT. Please confirm that this is the Department’s intent. (1)

Response: The Department agrees that products in subcategories 3 and 4 from the 2003 WBP NESHAP, as listed in the comment, would be subject to the final-form flat wood paneling rulemaking. All products of subcategory 5 would also be subject, including primed doorskin, provided that the panels fall into one of the defined categories with one of the defined finishes or materials.

Products in category 1 would most likely not be subject; however, trim, molding, baseboards, window frames and door framing made from solid wood (all the other substrates are not solid wood) could fall into the printed interior panel category if the surface is flat when coated. The Department agrees that products in category 2, flooring, would not be subject to the final-form rulemaking.

The final-form rulemaking is based on the 2006 EPA CTG for Flat Wood Paneling Coatings; the WBP NESHAP does not guide this rulemaking. Please also see the response to Comment #1 concerning the applicability of the final-form rulemaking.

3. Comment: SCOs that are already subject to one or more of the following programs should not be subject to RACT:

1. Maximum Achievable Control Technology (MACT) under the 2003 WBP SCO NESHAP.
2. Pennsylvania Best Available Technology (BAT) determination in the last ten years.
3. Emissions offset provisions of Pennsylvania New Source Review (NSR). (1)

Response: The Department disagrees.

1. State regulations to control VOC emissions from flat wood paneling surface coating operations with RACT are required under the Clean Air Act and its implementing regulations. For moderate ozone nonattainment areas (all of this Commonwealth due to its inclusion in the Ozone Transport Region (OTR)), states must revise their SIPs to include RACT for sources of VOC emissions covered by a CTG document. MACT regulations are for controlling hazardous air pollutants (HAP) and VOCs that are HAPs, not for controlling all VOCs as precursors of

ground-level ozone. Nevertheless, some HAPs are VOCs, so actions taken at an SCO to satisfy MACT requirements may coincide with the requirements for RACT in this final-form rulemaking.

2. SCOs that have been subject to BAT may also meet the requirements of the final-form rulemaking because the BAT determined at the time of the review may be as stringent or more stringent than the requirements of this final-form rulemaking. However, if the BAT is less stringent than the requirements contained in this final-form rulemaking, the SCO must comply with the more stringent requirements.

3. The EPA does accept Pennsylvania's BAT determinations and recent NSR applicability determinations as fulfillment of RACT for facilities that are **not** covered by a CTG, for which controls are installed after December 9, 1997 (62 FR 64722), the date that the EPA approved the Department's NSR program, because this date draws the line between an existing source subject to RACT and a new source subject to NSR.

VOC Content Limit

4. **Comment:** According to § 129.52c(c)(1) each "as applied" coating must meet the limit in Table I of 2.9 Lbs VOCs per gallon coating solids. The limit should be applicable to an entire SCO or category of Flat Wood Paneling Product processed on a SCO, on a weighted-average basis of all coatings applied, rather than to each individual coating. The weighted average approach was discussed with Mr. Lynn Dail of the EPA Office of Air Quality Planning and Standards (OAQPS), who told CraftMaster that this approach would meet the intent of the rule. (1)

Response: The Department agrees that the weighted-average approach is acceptable. The Department added subparagraph (ii) to § 129.52c(c)(1) to allow for calculating a daily weighted-average VOC content for all materials used within a single surface coating process line. The EPA requested that the equation to calculate the weighted average be included in the rulemaking and the Department has added the equation. Also, demonstrating equivalency with the requirements in § 129.52c is allowed under § 129.51(a) in the final-form rulemaking. The weighted-average approach could be specified in a plan approval application and memorialized in a permit under the equivalency provision if a company desires to proceed in that fashion and obtains permit approval.

5. **Comment:** The owner or operator of a facility should be able to use "as purchased" VOCs data instead of calculating "as applied" data. Calculation of "as applied" should be limited to a situation where one or more components of a blend are not a "complying coating" on its own. (1)

Response: The Department agrees that "as purchased" VOC data can be used under specific circumstances instead of "as applied" data, as described in this response. If there is no thinning or mixing of additional regulated VOCs with the as purchased material, but only blending of two or more compliant coatings (each less than 2.9 lbs VOC/gal coating solids), the company could make a statement in its recordkeeping documents to this effect and not provide calculations. For example: "No additional regulated VOCs are added to our coatings and the as applied values are

the same as the as purchased values.” However, if mixing of thinners or other noncompliant VOC containing coatings with the “as purchased” material occurs, the “as applied” coating VOC content must be calculated. The Department reserves its right to sample a coating, even if the company has provided a written statement that the coating is compliant as mixed.

Required Overall Efficiency of a Control System

6. Comment: Required overall efficiency of a control system: When multiple coatings are applied on a SCO in multiple steps, what VOC content shall be input to the equation to calculate the required overall control efficiency (O)? (1)

Response: The as applied VOC content of each coating is to be used to calculate overall control efficiency. Typically, the owner or operator of a facility might calculate the control efficiency that their highest VOC content coating would require and set the control efficiency of the control device to that level.

7. Comment: Please specify that capture efficiency and destruction efficiency testing be performed per the 2003 WBP SCO NESHAP, §§ 63.4765 and 63.4766. (1)

Response: The Department disagrees with specifying NESHAP testing methods in the final-form rulemaking. There may be overlapping requirements for SCOs subject to the WBP NESHAP and the final-form rulemaking; however, the WBP NESHAP is applicable only to major sources of HAPs and this final-form rulemaking is applicable only to operations that have actual VOC emissions of 15 lbs/day from all flat wood paneling operations listed in Table 1, including cleaning operations. Therefore, the final-form rulemaking requires in § 129.52c(c)(1)(ii) that testing be in accordance with 25 *Pa. Code* Chapter 139 (relating to sampling and testing). Further, it would not be appropriate for the owners and operators of facilities that are not subject to the WBP NESHAP to have to do testing according to that NESHAP.

Recordkeeping

8. Comment: Daily recordkeeping is an unnecessary burden with no known benefit, especially for SCOs where “complying coatings” are used exclusively. SCOs currently subject to monthly recordkeeping, that are satisfying the applicable Title V Operating Permit and 2003 WBP SCO NESHAP requirements, should be allowed to continue on that basis. The 2006 EPA CTG makes no mention of daily recordkeeping. (1)

Response: The Department disagrees with the commentator’s comments regarding the appropriate frequency of recordkeeping. While it is true the CTG does not discuss daily recordkeeping, the Department is requiring daily recordkeeping because the applicability for the final-form rulemaking is based on emissions of VOC equal to or greater than 15 lbs per day, before control. Therefore, in order to demonstrate inclusion or exemption from the regulation, and to enable the Department to ascertain compliance at any time, daily records must be kept. Furthermore, since daily records will be necessary in order to satisfy the requirements for

monthly records, the recordkeeping burden should be minimal. The Department disagrees that there are any additional costs associated with daily recordkeeping.

9. Comment: CraftMaster asserts that the daily recordkeeping required under this subsection is burdensome with no known benefit. In the Preamble to the final-form regulation, the Board should explain the basis and need for requiring daily recordkeeping. (2)

Response: The daily recordkeeping requirement will be discussed in the Order of the final-form rulemaking. See also response to Comment #8.

10. Comment: Subsection (e) is unclear as to what format the records should be maintained. This should be clarified in the final-form regulation. (2)

Response: The Department respectfully disagrees. Requiring regulated facilities to maintain records is a standard requirement. This requirement is found in many Board-approved regulations, including § 129.52(g) (relating to surface coating processes), for instance. The owners and operators of regulated sources have not had difficulty understanding or complying with this requirement. No changes have been made to the final-form rulemaking concerning format in response to this comment.

11. Comment: Will requests under subsection (e) for submission of records by the Department be made orally or in writing? This should be clarified in the final-form regulation. (2)

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

12. Comment: How does one calculate the VOC content in lbs VOC per gallon of coating solids for a cleaning solvent as required under § 129.52c(d)(2)? (1)

Response: The final-form regulation specifies “VOC content.” The VOC content of the as applied cleaning solvent is to be expressed in units of weight VOC/volume of solvent, while the VOC content of as applied coatings is expressed in units of weight VOC/volume of coating solids.

Application Methods

13. Comment: The application methods noted in the proposed regulations may not be technically feasible for all SCOs subject to the proposed RACT regulations. Airless sprays are used in many instances. The 2003 WBP SCO NESHAP and the 2006 CTG do not specify requirements for coating application methods. It is requested that the requirements regarding coating application methods be removed. (1)

Response: The Department agrees that airless sprays can be used for flat wood paneling surface coating operations. The proposed rulemaking included high volume-low pressure spray; proposed § 129.52c(f)(7) also allowed for other coating application methods to be approved in writing by the Department, if the request is submitted in writing and if the method achieves an

equivalent or better transfer efficiency than those in paragraphs (1)-(6). For clarity, airless, air-assisted airless and electrostatic spray coating methods have been added to § 129.52c(f) in the final-form rulemaking. The Department's final-form rulemaking is based on the 2006 EPA CTG for Flat Wood Paneling Coatings, not the WBP NESHAP. The 2006 CTG lists coating application methods, including "spray techniques," on page 5 under Section IV, subsection B, Sources of VOC Emissions.

14. Comment: Based on CraftMaster's comments, the Board should consider adding airless sprays to the list, or explain why airless sprays should not be included. (2)

Response: The Department agrees with the commentator. Airless, air-assisted airless and electrostatic coating methods have been added under § 129.52c(f) in the final-form rulemaking. Please also see the response to Comment #13.

De minimis quantity

15. Comment: A single coating with annual usage less than 50 gallons should be considered *de minimis* regardless of the amount of coatings used elsewhere in the facility. (1)

Response: The Department disagrees. The intent of the 50 gallon per year limit for a single coating, and a total of 200 gallons per year for all noncomplying coatings combined, is to provide flexibility to the owner or operator to allow for testing and special runs of noncomplying coatings. The intent is not to exempt over 200 gallons of special runs with noncompliant coatings, because such an exemption could eliminate the emission reductions achieved by limiting VOC emissions in the first place.

The exemption in the final-form rulemaking is consistent with other Board-approved regulations, specifically, the surface coating requirements in §§ 129.52(h)(1) and 129.101(f)(1) (relating to general provisions and applicability).

16. Comment: Please specify if an individual VOC can be considered *de minimis* exempt if it is present in an as purchased coating at less than 1% by weight, or 0.10 % by weight for carcinogens. This is the Federal criteria used in Material Safety Data Sheet (MSDS) preparation and in the 2003 WBP SCO NESHAP. (1)

Response: The Department's final-form rulemaking makes no specific exemption for an individual VOC present in a coating at less than 1% by weight or 0.1% by weight for carcinogens. The VOC content of each as applied coating must be evaluated on the basis of weight of total VOC per volume of coating solids. Further, this final-form rulemaking is for VOC RACT purposes only, not for regulating HAP.

Potential VOC Reductions

17. Comment: The commentator estimated that the 2008 Flat Wood Paneling SCO emissions in Pennsylvania are about 141.1 tons, considering 41.7 tons from the other ten facilities and 99.4 tons from CraftMaster. This is significantly less than the 440.4 tons noted in the Preamble. The

possible VOC reductions for the highest emitting facility (CraftMaster) range from 5.3 to 9.0 tons per year. This is substantially less than the 15.2 tons per year estimated in the Preamble. (1)

Response: The 440.4 tons listed in the Preamble to the proposed rulemaking were estimated actual emissions from all 11 facilities in 2008 (398.7 from CraftMaster and 41.7 from others). These were listed as estimated actual emissions because at the time the proposed rulemaking documents were finalized, not all facility VOC emissions had been reported to the Department and verified for 2008; additionally, a few facilities do not report emissions. The 440.4 tons assumed every SCO at a facility would be subject to the proposed rulemaking. Because CraftMaster had the greatest actual emissions, the Department contacted representatives at the facility prior to proposing this rulemaking and determined that there were only some interior flat wood paneling surface coating processes at the facility that were potentially subject and not in compliance with the limits in the proposed rulemaking, and the 2008 emissions for those operations were 75.9 tons. Therefore, the Department estimated a potential maximum VOC reduction from CraftMaster to be 15.8 tons (75.9 tons x 20% EPA estimated reduction for interior flat wood paneling coating).

The Department appreciates the subsequent work CraftMaster staff have completed to determine the potential emissions from subject lines (99.4 tons) and the amount that can be reduced (5.3 to 9.0 tons). The emission reduction estimates have been revised in the Order accompanying the final-form rulemaking to reflect the estimates provided by CraftMaster in its comments.

Compliance Costs

18. **Comment:** The costs noted in the proposed RACT represent only those costs associated with changing from solvent-based coatings to water-based coatings. (1)

Response: The Department agrees. The cost estimates used by the Department were taken from those used in the 2006 CTG for flat wood paneling on pages 10 and 11. The cost estimates are for using lower VOC-content coatings as a means of control because it is believed that would be how most flat wood paneling surface coating facilities would come into compliance with the state requirements.

19. **Comment:** For one SCO it is estimated that the capital costs to install a Regenerative Thermal Oxidizer (RTO) control device would be \$3.46 million, with annual costs of \$1.51 million. The cost per ton of VOCs controlled is \$43,000 -- far greater than any known RACT cost-effectiveness criteria. NO_x emissions associated with operating the RTO are estimated at 4.7 tons per year. (1, 2)

Response: The Department appreciates the work CraftMaster staff undertook to determine the cost of installation of a control device. The 2006 flat wood paneling CTG does not address costs for RTOs or other add-on control devices, only costs for lower VOC-content coatings. The Department estimates that the annual cost for the owners or operators of CraftMaster to change the company's noncomplying interior flat wood paneling surface coating processes over to processes using compliant coatings would be \$10,070 (5.3 tons VOC emissions reduced x

\$1900/ton) (using the emission reductions provided by CraftMaster in its comment letter and costs provided by the EPA in the CTG).

The final-form rulemaking allows but does not require the installation of an add-on control device to meet the emission limitations. It is a facility owner or operator's choice whether to use compliant coatings or add-on controls. Compliant coatings are available.

The Department recognizes that there is an increase in NOx emissions with the operation of an RTO.

Should CraftMaster average the VOC contents of all materials used within a single surface coating process line under final-form § 129.52c(c)(1)(ii), the facility might not have any noncompliant surface coating process lines and no additional emission reductions would be required at the facility. Please see response to Comment #4.

20. Comment: The additional costs associated with daily recordkeeping and the enclosing of all coatings, coating-related wastes and coating related clean-up materials handling systems have not been evaluated and could be significant. (1, 2)

Response: The Department disagrees that there are any additional costs with daily recordkeeping. Please see response to Comment #8. See response to Comment #22 for discussion of "enclosing" of all coatings, coating-related wastes and coating related clean-up materials handling systems.

The Department also does not anticipate increased cost due to the implementation of work practice standards for cleaning materials. The Preamble to the proposed rulemaking stated: "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."

The EPA did not estimate any cost associated with work practice standards in the CTG. On page 7 of the CTG, the EPA states: "To provide structure and consistency to their work practices, facilities can develop and implement a work practice plan. The work practice plan is a proven and traditional approach for cleaning that is easily adopted and managed by various industries, including flat wood paneling coatings."

21. Comment: The Board should address the fiscal impact concerns raised by CraftMaster in the Preamble and RAF that accompany the final-form rulemaking. (2)

Response: The final-form rulemaking Regulatory Analysis Form and Order will address these concerns.

Work Practice Requirements

22. Comment: The requirement to fully enclose coatings, coating-related wastes, and coating-related clean-up materials handling systems should not be applicable in all instances.

CraftMaster asserts that it is not technically feasible or cost effective to enclose materials where coatings are water-based "complying coatings," the cleaning material is limited to water and wastes are treated onsite. The Board should explain why it is necessary to fully enclose all coatings and coating-related waste materials. (1, 2)

Response: The Department is not requiring a facility to fully enclose all coatings, coating-related wastes and coating-related clean-up materials handling systems. Neither the proposed nor final-form rulemaking requires this. The requirements are to: (1) store VOC-containing materials in closed containers; (2) minimize spills of VOC-containing materials and clean up spills immediately; (3) convey VOC-containing materials from one location to another in closed pipes or containers; (4) ensure that mixing and storage containers used for VOC-containing materials are kept closed at all times, except when depositing or removing these materials; and (5) minimize VOC emissions during cleaning of storage, mixing and conveying equipment. The work practice requirements for coating-related activities and cleaning materials in the final-form rulemaking were taken from the 2006 CTG. See also response to Comment #20 concerning costs of these work practice requirements.

23. **Comment:** Exceptions to the requirement to enclose coatings, coating-related wastes, and coating-related clean-up materials handling systems should be made for water based "complying coatings," when cleaning material is limited to water and the wastes are treated on site. (1)

Response: The Department disagrees that there is a requirement to enclose all operations. See also responses to Comments #20 - #22 concerning costs and work practice for "enclosing." The Department also disagrees with the commentator about water-based coating exemptions. Water-based coatings and compliant coatings are not necessarily VOC-free. Therefore, a broad-based exemption is not advisable and no changes have been made to the final-form rulemaking.

24. **Comment:** It would not be technically feasible to enclose coatings, coating-related wastes, and coating-related clean-up materials handling systems operations in all instances, nor would it be cost effective.

Under the 2003 WBP SCO NESHAP, work practice requirements such as these are not applicable to "complying coatings." VOC emissions from coating-related wastes can already be accounted for by the change in as-purchased coating inventory. Then no actual reductions in VOC emissions would be realized by enclosing the handling systems – only a change to the emissions pathway. (1)

Response: The Department is not requiring a facility to enclose all operations. See also responses to Comments #20 - #22 concerning costs and work practice for "enclosing."

The final-form rulemaking is based on the 2006 EPA CTG for Flat Wood Paneling Coatings, not the 2003 WBP NESHAP. While it is true that the WBP NESHAP does not include work practice requirements for complying coatings, this final-form rulemaking is for VOC RACT purposes, not for regulating HAP.

Cost Effectiveness

25. **Comment:** The proposed RACT should consider cost-effectiveness in a similar manner as the "case-by-case" RACT of § 129.92(b)(4) (relating to RACT proposal requirements). (1)

Response: The EPA evaluated the cost effectiveness of lower VOC-content coatings in the CTG and found these limits to be cost effective. See also response to Comment # 4 concerning the option to comply using an equivalency under 129.51(a) and response to Comment #19 concerning RACT costs.

26. **Comment:** It is expected that the installation of a control device on a SCO already complying with the 2003 WBP SCO NESHAP would have a poor cost-effectiveness.

The same may be said for enclosing of all coatings, coating-related wastes and coatings-related clean-up materials handling systems where "complying coatings" are used. (1)

Response: The Department agrees.

See responses to Comments #19 and #25 concerning costs of RACT. See also responses to Comments #20 - #22 concerning "enclosing" work practices and costs.

Benefits of associated HAPs reductions

27. **Comment:** The WBP SCO NESHAP for HAPS already covers SCOs included in this RACT. The "serious health threat" from the remaining HAPs is believed to be overstated. (1)

Response: The Department agrees that there may be overlapping requirements for SCOs subject to the WBP NESHAP and the final-form rulemaking. However, the WBP NESHAP is applicable only to major sources of HAPs and this final-form rulemaking is applicable to subject operations that have actual VOC emissions of 15 lbs/day or more from all flat wood paneling surface coating processes listed in Table I, including cleaning operations. Therefore, smaller facilities would be subject to the final-form rulemaking and, by reducing VOCs, may also be reducing a significant amount of HAPs. For a source that is already subject to the NESHAP, the HAP reductions achieved from the final-form rulemaking will be less than if it were not already subject to the NESHAP.

Section 121.1 Definitions and Clarity

28. **Comment:** The second sentences in the definitions of "Decorative interior panel," "Exterior siding" and "Exterior trim" contain non-regulatory language. These sentences would be more appropriate in the Preamble and should be deleted from the definitions. (2)

Response: The Department disagrees that the sentences should be deleted from the definitions. The Department believes the sentences provide useful information that will help the regulated community, environmental community and Department field staff be better able to identify the

type of product they are dealing with. No changes were made to the final-form rulemaking as a result of this comment.

29. **Comment:** *MDF- Medium density fiberboard-* This definition contains the phrase "engineered wood panel product." To improve clarity, we recommend the Board define this term in the final-form regulation. (2)

Response: The Department agrees that "engineered wood panel product" should be a defined term. The Department has amended § 121.1 in the final-form rulemaking to include this term.

30. **Comment:** *Tileboard* -Under this definition, what is a "premium interior wall paneling product"? We recommend that the Board define this term in the final-form regulation.

Also, Section 1.7(e) of the Pennsylvania Code and Bulletin *Style Manual* states that a "...term being defined may not be included as part of the definition." Therefore, the word "Tileboard" at the beginning of the second sentence should be deleted. (2)

Response: The Department agrees that "premium interior wall paneling product" should be a defined term. The Department has amended § 121.1 in the final-form rulemaking to include this term. In deference to the *Style Manual*, the Department has removed the word "tileboard" from the definition of "tileboard."



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

POLICY OFFICE

October 1, 2010

Mr. Kim Kaufman, Executive Director
Independent Regulatory Review Commission
14th Floor
333 Market Street
Harrisburg, PA 17120

Re: Final-Form Rulemaking – Adhesives, Sealants, Primers and Solvents (#7-428)
Final-Form Rulemaking – Lead and Copper Short Term Revisions (#7-437)
Final-Form Rulemaking – Flat Wood Paneling Surface Coating Operations (#7-447)

Dear Mr. Kaufman:

Pursuant to Section 5.1(a) of the Regulatory Review Act, please find enclosed copies of three final-form rulemakings for review and comment by the Independent Regulatory Review Commission. The Environmental Quality Board (EQB) approved these final-form rulemakings at its September 21, 2010, meeting.

The first final rulemaking enclosed, the **Adhesives, Sealants, Primers and Solvents** final rulemaking, adds volatile organic compound (VOC) emission limits for the use and application of 37 categories of products that are currently unregulated in this Commonwealth, including adhesives, sealants, adhesive primers, sealant primers, and adhesive or sealant products applied to particular substrates. The rulemaking also includes requirements for the use of surface preparation solvents and cleanup solvents. The emission limitations included in the rulemaking will apply to the industrial and commercial use of the products, as well as their use by facility owners and operators as a part of a manufacturing process. As such, owners and operators of facilities that use or apply these products will be subject to the regulations, as well as any person who sells, supplies, offers for sale or manufactures for sale for use in this Commonwealth an adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvents. A person who uses these products or applies for compensation in this Commonwealth to use these products will also be required to comply with the provisions in this rulemaking. This would include plumbers, roofers, window and automotive glass installers, home builders and remodelers, construction companies, landscapers, boat builders, ceramic tile installers and vinyl flooring installers.

The rulemaking, once implemented, is expected to reduce VOC emissions in Pennsylvania by approximately 7,957 tons per year. The additional VOC emission reductions that will occur as a result of the rulemaking are reasonably necessary as a part of the Commonwealth's strategy to achieve and maintain the 8-hour ozone national ambient air quality standard throughout the Commonwealth. The provisions contained in the rulemaking are modeled after control measures recommended by the Ozone Transport Commission in its 2006 Model Rule for adhesives,



sealants and primers. To provide flexibility, the rulemaking allows owners and operators that use noncompliant products to use add-on air pollution controls as a compliance alternative in lieu of the use of compliant products. Upon finalization of the rulemaking, the regulations will be submitted to the EPA as a revision to the Commonwealth's State Implementation Plan (SIP).

The proposed rulemaking was adopted by the Board on December 16, 2008, and the proposal was published in the *Pennsylvania Bulletin* on April 4, 2009, with provision for a 66-day public comment period and three public hearings. The Board received public comments from 12 commentators and the Independent Regulatory Review Commission (IRRC). As a result of comments received, the Department made several changes at final-form rulemaking. In order to provide a reasonable compliance date that allows for implementation of the rule's requirements, the compliance date included in the proposed regulations has been amended to January 1, 2012, in the final-form rulemaking. As such, the Department has also amended the final-form rulemaking to require compliance with the VOC content limits for single-ply roofing membrane products by January 1, 2012. At proposed rulemaking, a transitional period was provided, at the request of the ethylene propylene diene monomer (EPDM) industry, to allow the industry adequate time to field test new VOC-compliant adhesive formulations used in the construction of singly-ply roofing membrane. Because of the new compliance date included in the final-form rulemaking, a transitional or phased-in compliance period for the EPDM industry is not included in the final regulations, as the Department believes the January 1, 2012, compliance date provides the EPDM roofing manufacturers and Pennsylvania roofing contractors with adequate time to develop VOC-compliant products and perfect the application practices that will be effective on a year-round basis. In addition to these changes, the Department made modifications to clarify the sell-through and use-through provisions in the rulemaking. At final rulemaking, the Department has clarified in § 130.702(b) that noncomplying products manufactured on and after the amended compliance date of January 1, 2012, may not be used or applied for compensation in the Commonwealth. The Department also amended the final-form rulemaking to add §§ 130.707 and 130.708 to allow the sell-through of non-complying product manufactured before January 1, 2012, if the product container or package displays the date on which the product was manufactured.

The Department consulted with Air Quality Technical Advisory Committee (AQTAC) about the final-form rulemaking on November 18, 2009, and February 18, 2010. The AQTAC unanimously concurred with the Department's recommendation to seek Board approval of the final-form rulemaking. The Department also consulted with the Citizens Advisory Council (CAC) on December 16, 2009, and the Small Business Compliance Advisory Committee (SBCAC) on July 28, 2010. The CAC and SBCAC concurred with the Department's recommendation that the final-form amendments be moved to the Board for formal action.

The second final rulemaking enclosed, **Lead and Copper Rule Short Term Revisions**, amends the Lead and Copper provisions of the Department's Safe Drinking Water regulations to incorporate changes promulgated by the U.S. Environmental Protection Agency (EPA) on October 10, 2007, to the Federal Lead and Copper Rule: Short Term Regulatory Revisions. The PA Safe Drinking Water Act obligates the Department to maintain primacy for the Safe Drinking Water program. As such, the Department is required to incorporate federal requirements to maintain primary enforcement authority for the Lead and Copper Rule (LCR).

The primary goal of the LCR is to reduce lead and copper levels at consumers' taps, thereby reducing the health risks associated with lead and copper. The rulemaking amends several provisions of the current LCR to strengthen implementation of existing requirements regarding monitoring, treatment processes, public education, customer awareness and lead service line replacement. The final-form rulemaking will affect 3,226 public water systems which serve a total population of over 11.2 million Pennsylvanians. One provision of the rulemaking is more stringent than federal requirements. Under federal regulations, a system that exceeds regulatory thresholds for copper may request reduced monitoring. However, in PA, water systems must meet both the lead and copper regulatory levels in order to be eligible for a reduced monitoring schedule.

The proposed rulemaking was adopted by the Board on June 16, 2009, and was published for public comment in the September 26, 2009, edition of the *Pennsylvania Bulletin*. The Board did not receive any public comments on the proposal during the 30-day public comment period; however, the Independent Regulatory Review Commission (IRRC) provided comments to the Board on the rulemaking. In their comments, IRRC questioned the justification for including a provision in the rulemaking that is more stringent than federal requirements. IRRC also requested clarity on several provisions it felt were unclear including requirements pertaining to the delivery of education materials by water suppliers to local public health agencies. The Department amended the rulemaking to address areas where further clarification was warranted.

The draft final-form rulemaking was submitted to the Small Water Systems Technical Assistance Center Advisory Board (TAC) for review and discussion on June 18, 2010. TAC commented that it understood the amendments in the rulemaking are needed to ensure continued primacy of the program and provided its support of the final-form rulemaking.

The third final rulemaking enclosed, **Flat Wood Paneling Surface Coating Processes**, amends 25 *Pa Code*, Chapters 121 and 129 to establish VOC emission limits from the use and application of inks, coatings, adhesives and cleaning materials in flat wood paneling surface coating processes. The emission limits and other requirements of the final-form amendments 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. In Pennsylvania, 10 flat wood paneling surface coating facilities, which collectively emitted 248 tons of VOC emissions in 2009, may potentially be subject to the requirements in the final-form rulemaking.

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 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 final-form rulemaking adopts the emission limits and other requirements of 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 Board as a final-form rulemaking, will be submitted to the EPA as a revision to the SIP.

The proposed rulemaking was adopted by the Board on September 15, 2009, and published for public comment in the *Pennsylvania Bulletin* on October 17, 2009, where provision for a 66-day public comment period and three public hearings were advertised. Public comments were received from one commentator, CraftMaster Manufacturing, Inc. IRRC also provided comments on the rulemaking. As a result of comments received, several changes are included in the final-form rulemaking. Under § 129.52c(c), a new subparagraph (ii) was added in response to comments from CraftMaster Manufacturing, Inc., who suggested that VOC emission limits in the rulemaking should be applicable to an entire surface coating operation or category of flat wood paneling product processed on a surface coating operation and that limits be based on a weighted-average of all coatings applied rather than limits for each individual coating. As a result of this comment, a new subparagraph (ii) was added to § 129.52c(c) which allows for calculating a daily weighted-average VOC content for all materials used within a single surface coating process line. In response to guidance from EPA, an equation to calculate the weighted average is also included in the final regulations. At final-form rulemaking, additional changes were also made, including amending the compliance date of the regulations from January 1, 2011 to January 1, 2012, based on the anticipated publication date of the final-form rulemaking. To ensure clarity, additional terms and definitions were also added to the final regulations and, in response to comments, modifications were made to recordkeeping and reporting requirements.

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. The costs of complying with the final-form requirements include the cost of using alternative product formulations, including low VOC-content or water-based inks, coating and adhesives, and low VOC-content or water-based cleanup solvent products, or the costs of using add-on controls. It is important to emphasize that the final-form rulemaking does not require the installation of an add-on control device to meet the VOC emission limitations in the rulemaking. As a result, facility owners and operators may select the most cost-effective compliance option for their surface coating operations.

The final-form rulemaking was discussed with AQTAC on June 17, 2010. The AQTAC concurred with the Department's recommendation to present the final-form amendments to the Board for approval for publication as a final regulation. The Department also consulted with the CAC and the SBCAC on July 28, 2010. Neither the CAC nor the SBCAC had concerns with the final-form rulemaking.

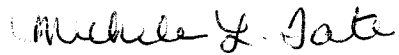
Mr. Kim Kaufman, Executive Director

- 5 -

October 1, 2010

The Department will provide assistance as necessary to facilitate the Commission's review of these final-form rulemakings under Section 5.1(e) of the Regulatory Review Act. Please contact me at the number above if you have any questions or need additional information.

Sincerely,

A handwritten signature in cursive script that reads "Michele L. Tate".

Michele L. Tate
Regulatory Coordinator

Enclosures



**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

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FILING OF REGULATION

DATE	SIGNATURE	DESIGNATION
10-1-10	<u>D Newton</u>	Majority Chair, HOUSE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY Rep. Camille George
10/1/10	<u>Jessie R. Guyer</u>	Minority Chair, HOUSE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
10/1/10	<u>D. Castelli</u>	Majority Chair, SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY Senator Mary Jo White
10-1-10	<u>A. Rybargsh</u>	Minority Chair, SENATE COMMITTEE ON ENVIRONMENTAL RESOURCES & ENERGY
10/1/10	<u>K Cooper</u>	INDEPENDENT REGULATORY REVIEW COMMISSION
_____	_____	ATTORNEY GENERAL (for Final Omitted only)
_____	_____	LEGISLATIVE REFERENCE BUREAU (for Proposed only)

