

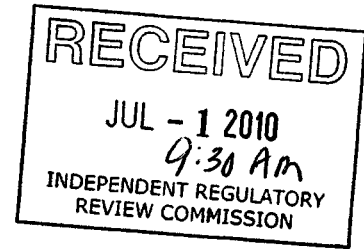
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June 29, 2010

Certified Mail Return Receipt 91 7113 3376 8270 0427 7024  
Commonwealth of Pennsylvania  
Environmental Quality Board  
P O Box 8477  
Harrisburg, PA 17105-8477



Subject: Updated Comments on Proposed RACT for  
Flat Wood Paneling Surface Coating Operations (SCO's)

Dear Environmental Quality Board Members:

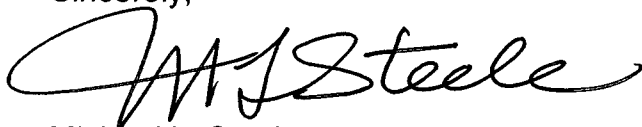
Please consider the attached revised comments regarding the proposed rulemaking that would limit VOC's from Flat Wood Paneling SCO's by adopting USEPA's 2006 Control Techniques Guidelines (CTG) as Reasonably Available Control Technology (RACT). This revision supplements CraftMaster's original comments submitted November 24, 2009. The revisions result from CraftMaster's review of Draft Final Rulemaking of June 4, 2010 as presented on the Air Quality Technical Advisory Committee's website. We have also discussed some of the original comments by telephone with PADEP personnel.

In addition to revising our previous comments, CraftMaster would like to present an additional comment regarding PADEP's stated objective of incorporating the 2006 CTG. The proposed regulation fails to incorporate the USEPA 2006 CTG in several key areas:

- The 2006 CTG limit of 2.9 Lbs VOC's per gallon of coating solids is based on the weighted average of all coatings applied to a flat wood paneling product category. (Please see November 24, 2009 comment item 2 for discussion.) The proposed rule holds each applied coating to the CTG limit. The proposed rule is more restrictive and goes beyond the requirements of the 2006 CTG.
- The 2006 CTG instructs states to consider the cost-effectiveness of controls on SCO's already in compliance with the 2003 Wood Building Products NESHAP's. There is no provision for cost-effectiveness in the proposed rules.
- Daily recordkeeping is not discussed in the 2006 CTG. The requirement for daily recordkeeping in the proposed rules goes beyond the requirements of the 2006 CTG.
- Coating application methods are not specified in the CTG. Specifying acceptable application methods in the proposed rules goes beyond the requirements of the 2006 CTG.

Please review and consider our revised comments. If you have any questions or require additional information, please contact the undersigned at (570) 268-8737 or by email at [mick.steele@cmicompany.com](mailto:mick.steele@cmicompany.com). Thanks for your cooperation.

Sincerely,

A handwritten signature in black ink that reads "M L Steele". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Michael L. Steele  
Environmental Engineer

cc: Mr. C. W. Benton  
Mr. M. Q. Zaman – PADEP NCRO  
Mr. S. R. Schalles - IRRRC

enclosure

## Revised Comments on PADEP Proposed RACT Regulations for Flat Wood Paneling Surface Coating Operations

*Please note that this document includes original comments from November 24, 2009 along with revisions of June 29, 2010. Revised comments based on review of Draft Final Rulemaking document of June 4, 2010. Revisions are in italics type.*

### 1. Applicability

Please clarify the Department's intent regarding what Wood Building Product (WBP) subcategories, from the following list, would be subject to the proposed Reasonably Available Control Technology (RACT) regulations for Surface Coating Operations (SCO's). Subcategories are from the 2003 WBP SCO National Emission Standards for Hazardous Air Pollutants (NESHAP's), § 63.4681(a)(1) through (5):

- 1) Doors, windows, and miscellaneous including:
  - Doors,
  - Windows,
  - Finished doorskins,
  - Door and window components including:
    - Millwork,
    - Moulding,
    - Trim.
  - Miscellaneous, including:
    - Moulding,
    - Trim,
    - Shingles,
    - Shutters,
    - And others.
- 2) Flooring, including:
  - Solid wood flooring,
  - Engineered flooring,
  - Laminate flooring
- 3) Interior wall paneling and tileboard, including:
  - Interior wall paneling,
  - Tileboard.
- 4) Other interior panels (other than interior wall paneling), including:
  - Coated particleboard,
  - Coated hardboard,
  - Coated perforated panels.
- 5) Exterior siding and primed doorskins, including:
  - Lap siding,
  - Panel siding,
  - Trimboard,
  - Primed doorskins.

Based on Table I and the definitions of § 121.1, the proposed RACT would seem to apply to subcategories 3) and 4) and to the Siding and Trimboard products of subcategory 5). Then 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.

SCO’s that are already subject to the following programs should not be subject to RACT:

- Maximum Achievable Control Technology (MACT) under the 2003 WBP SCO NESHAP’s,
- A PA Best Available Technology (PA BAT) determination within the past ten years,
- Emissions offset provisions of PA New Source Review (PA NSR).

Controlling VOC’s and VHAP’s emissions at the MACT or PA BAT level would seem to be by definition beyond the level considered “reasonably available”. A SCO subject to the emissions offsets requirements under PA NSR has already contributed to the state-wide annual reduction in actual VOC’s emissions which is the purpose of RACT.

*PADEP had added definitions to §121.1; however, Table I is unchanged and it remains unclear what product categories are subject to the proposed rule. We will proceed based on the assumption that all of CraftMaster’s SCO’s are subject to the proposed rule.*

*There are no changes to rule in the area of applicability of the proposed rules to SCO’s already subject to the 2003 WBP NESHAP’s, etc. Previous comments remain applicable.*

## 2. Coatings VOC’s Content Limit:

According to § 129.52c.(c)(1) *of the proposed rules*, each “as applied” coating must meet the limit in Table I of 2.9 Lbs VOC’s 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.

This is consistent with the 1978 USEPA Control Techniques Guidelines (CTG) for Factory Coating of Flat Wood Paneling, the 2003 WBP SCO NESHAP’s, the 2006 CTG, and the equivalency provisions of § 129.51. Then, where a number of individual coatings are applied to a Flat Wood Paneling Product, lower VOC’s content basecoats could offset higher VOC’s content topcoats in a weighted-average approach. Units would be on a uniform basis of Lbs VOC’s per gallon of coating solids.

This approach is consistent with the 1978 CTG, where the limits are expressed as Lbs VOC’s per 1000 ft<sup>2</sup> of Flat Wood Paneling product coated for a particular product category. The product categories noted in Table 1 (of the 2006 CTG), for example Class II hardboard panels, require a number of individual coatings to be applied. Then to determine compliance with the limit, all coatings used must be combined and considered.

The weighted-average approach directly follows the 2003 WBP SCO NESHAP's under compliance option (b), "Emissions Rate without Add-on Controls". See §§ 63.4691 (b) and 63.4751

In the 2006 CTG, the coating system limit from the 1978 CTG is converted from Lbs VOC's per 1000 ft<sup>2</sup> product to its equivalent as Lbs VOC's per gallon coating less water and exempts. This value in turn is converted to its equivalent as Lbs VOC's per gallon of coating solids. It follows then that if one begins with a limit where all coatings used must be combined and considered, then its equivalents must also consider all coatings used as well - not each coating individually.

Table 2 of the 2006 CTG is titled "Recommended Emissions Limits for Flat Wood Paneling Coating Operations". It does not specify "individual coatings" or even "coatings". The limits are for "Coating Operations". Section VI. A. contains the following statement: "An equivalent limit, expressed as units of weight of VOC per volume of solids in all coatings would be is 350 grams of VOC per liter solids (2.9 Lbs VOC per gallon of solids)." Underline added. If this were intended to be a maximum value not to be exceeded by an individual coating, it would say "in any coatings". Nothing in the 2006 CTG would seem to prohibit the weighted-average approach to be used by the States in establishing their RACT regulations.

The US EPA's intent was discussed with Mr. Lynn Dail of the Office of Air Quality Planning and Standards (OAQPS) who was designated in the October 5, 2006 Federal Register as the technical contact for the 2006 CTG. The feedback from Mr. Dail was that the weighted-average approach would meet the intent of the rule.

*There are no changes to rule in this area and the above comments remain applicable.*

*We understand that language may be added to the preamble permitting the weighted average approach to be considered an "alternate method" under the equivalency provisions of existing § 129.51 (a). Section 129.51 (a) (1) requires that PADEP approve an "alternate method" in a plan approval and/ or operating permit. CraftMaster has the following comments/ questions on this approach:*

- The burden and responsibility is transferred to the Regional Office of PADEP to make a determination of equivalency. Uniformity across the Commonwealth is not assured.*
- An additional burden is placed on the SCO Owner/ Operator to file a plan approval and/ or operating permit modification application.*
- Can a plan approval or operating permit modification be issued in time to meet the compliance date of January 1, 2011?*
- If a plan approval application is required, is the SCO subject to a PA Best Available Technology (BAT) determination under § 127.12 (5) for a new source? (A new source is defined (§ 121.1) as any constructed after July 1, 1972.) We believe it would not be appropriate to trigger PA BAT applicability to implement a RACT requirement.*

- *What averaging period for calculating the weighted average would be acceptable? Annual? Quarterly?*

*It would seem a much more straightforward approach to incorporate the weighted average approach for a product category or SCO in the rules.*

3. VOC content “as applied”:

A facility should be able to use “as purchased” VOC’s data in lieu of calculating “as applied” data. In many instances the “as applied” and “as purchased” values will be the same when only water or solids and VOC’s-free catalysts are blended with the coating prior to application. When two or more “complying coatings” (each less than 2.9 Lbs VOC’s per gallon coating solids) are combined, the resulting blend must also be compliant. To require a calculation to prove this is an unnecessary burden with no known benefit in reduced emissions. 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.

*No changes to the rule in this area. Previous comments remain applicable.*

4. 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)? The highest VOC content coating? The weighted average VOC content? The weighted average of non-complying coatings? Please clarify the Department’s intent.

Also please specify that capture efficiency and destruction efficiency testing be performed per the 2003 WBP SCO NESHAP’s, §§ 63.4765 and 63.4766.

*No changes to rule in this area. Previous comments remain applicable.*

5. Daily Recordkeeping:

Daily recordkeeping is an unnecessary burden with no known benefit, especially for SCO’s where “complying coatings” are used exclusively. SCO’s currently subject to monthly recordkeeping that are satisfying the applicable Title V OP and 2003 WBP SCO NESHAP requirements, should be allowed to continue on that basis. Emissions calculations can be based on certified VOC’s data sheets provided by the coatings Manufacturers and monthly coating receipts and change in inventory. Results can be audited and should not be subject to the errors and inconsistencies found in daily records. The proposed RACT regulations have no daily emissions limits to compare daily recordkeeping results to. The 2006 CTG makes no mention of daily recordkeeping.

Also, how does one calculate the VOC content in Lbs VOC’s per gallon of coating solids for a cleaning solvent as required under § 129.52c (d) (2)?

*No changes to rule in this area. Previous comments remain applicable.*

6. Coating Application Methods:

The application methods noted in the proposed regulations may not be technically feasible for all SCO's subject to the proposed RACT regulations. Airless Sprays are used in many instances. It is requested that the requirements regarding coating application methods be removed from the RACT regulations. This is consistent with the 2003 WBP SCO NESHAP's and the 2006 CTG that make no mention of requirements for coating application methods.

*Additional acceptable application methods added per earlier comments. This comment is no longer applicable.*

7. De minimus quantity:

A single coating with annual usage of less than 50 gallons should be considered de minimus regardless of the amount of coatings used elsewhere in the facility.

Please also specify if an individual VOC can be considered de minimus exempt if it is present in an as-purchased coating at less than 1% by weight, or 0.1% by weight for carcinogens. This is the federal criteria used in Material Safety Data Sheet (MSDS) preparation and in the 2003 WBP SCO NESHAP.

*No changes to rule in this area. Proceed as no de minimus based on per cent by weight.*

8. Potential VOC Reductions:

If the ten facilities in PA other than the highest emitting (CraftMaster Manufacturing, Inc.) had VOC's emissions of 41.7 tons in 2008, then the Flat Wood Paneling SCO emissions in PA, including 99.4 tons of SCO emissions possibly applicable from CraftMaster, could not be more than about 141.1 tons. This is significantly less than the 440.4 tons noted in the preamble. The possible VOC's reductions for CraftMaster from 2008 levels range from 5.3 (reducing VOC's content to 2.9 Lbs per gallon coating solids) to 9.0 (control device at 90% capture and control efficiency) tons per year. This is substantially less than the 15.2 tons per year estimated in the preamble to the proposed RACT regulations.

*These figures were discussed in the preamble and it is not known if any changes have or will be made. Clearly the VOC's reductions claimed in the proposed rules are overstated and the impact of these SCO's on ambient ozone in PA is minor. Most emissions are in rural areas that are attainment areas that are NOx limited with respect to ozone formation.*

*The control concept of the 2006 CTG and proposed RACT, converting from solvent-based to water-based coatings, has already been in place at the CraftMaster facility for decades. Other facilities subject to the 2003 WBP NESHAP's have also most likely made the conversion. Any Flat Wood Paneling SCO's still using solvent-based coatings without a control device are likely to be small area sources not subject to the 2003 NESHAP's. It is unknown what fraction of the Commonwealth's SCO VOC's emissions fall into this category, but it is believed to be minor with respect to ozone formation.*

9. Compliance Costs:

The costs noted in the proposed RACT represent only those costs associated with changing from solvent-based coatings to water-based coatings, which are indeed negligible. If existing coatings are already water-based and no technically feasible, lower-VOC substitutes are available, the cost to install a control device would be substantially higher. For one SCO it is estimated using the US EPA OAQPS Control Cost Manual, that the capital costs to install a 90% efficient capture system and a Regenerative Thermal Oxidizer (RTO) control device would be \$3.46 million, with annual costs of \$1.51 million. The cost per ton of VOC's controlled would be almost \$43,000 – far greater than any known RACT cost-effectiveness criteria.

NOx emissions associated with operating the RTO are estimated at 4.7 tons per year.

The additional costs associated with daily recordkeeping and the enclosing of all coatings, coating-related wastes, and coatings-related clean-up materials handling systems have not been evaluated. These could be significant as well.

*No known changes; previous comments apply.*

10. Benefits of associated HAP's reductions:

WBP SCO's which include the SCO's affected by the proposed RACT *that are major sources*, are already subject to the 2003 WBP SCO NESHAP's for HAP's. The "serious health threat" from the remaining HAP's is believed to be overstated.

*No known changes; previous comments apply.*

11. Work Practice Requirements:

The requirement to fully enclose coatings, coating-related wastes, and coating-related clean-up materials handling systems should not be applicable in all instances. Exceptions should be made where coatings are water-based "complying coatings", the cleaning material is limited to water, and wastes are treated on-site. It would not be technically feasible to enclose these operations in all instances nor would it be cost-effective. VOC's emissions from coating-related wastes can already be accounted for by the change in as-purchased coating inventory. Then no actual reductions in VOC's emissions would be realized by enclosing the handling systems – only a change to the emissions pathway.



Under the 2003 WBP SCO NESHAP's, work practice requirements such as these are not applicable to "complying coatings".

*No known changes; previous comments apply.*

## 12. Cost-Effectiveness

The proposed RACT should consider cost-effectiveness in a similar manner as the "case-by-case" RACT of PA Code 25 § 129.92(b)(4). It is expected that the installation of a control device on a SCO already complying with the 2003 WBP SCO NESHAP's 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.

*No known changes; previous comments apply.*

