

**AGENCY OF NATURAL RESOURCES**

**Waterbury, Vermont**

**ENVIRONMENTAL PROTECTION REGULATIONS**

**CHAPTER 5**

**AIR POLLUTION CONTROL**

**Subchapter II. Prohibitions**

**Subsection 5-253.12 Coating of Flat Wood Paneling**

- (a) Applicability.
- (1) This section applies to any flat wood paneling coating line, except any such coating line within a stationary source whose actual emissions without control devices from all flat wood paneling coating lines within the source are less than 3 tons of volatile organic compounds per 12-month rolling period. Once a source is subject to this section, it shall remain so, even if its emissions levels later fall below the applicability threshold.
  - (2) Existing sources subject to this standard must comply within 24 months of the promulgation of this section.
  - (3) This rule does not apply to surface coating of wood flat stock that is subsequently used in furniture or cabinetry.
- (b) Definitions. For the purpose of this section, the following definitions apply, in addition to those of Section 5-101 of this chapter.

"Engineered wood exterior siding" means wood containing products, other than solid wood exterior siding, such as hardboard, plywood, particle board and waferboard designed for exterior service.

"Flat wood paneling" means any of the following flat wood products: exterior wood siding, including engineered wood exterior siding and solid wood exterior siding, interior Class I hardboard tileboard, interior Class II hardboard, natural finish hardwood plywood, printed interior panels made of hardwood plywood or thin particleboard.

"Flat wood paneling coating line" means a coating line used to apply coatings to flat

wood paneling products and includes the application, drying and/or curing of such coatings.

"Hardboard" is a panel manufactured primarily from inter-felted ligno-cellulosic fibers that are consolidated under heat and pressure in a hot press.

"Hardwood plywood" is plywood whose surface layer is a veneer of hardwood.

"Interior Class I hardboard tileboard panel" means a premium interior wall flat wood paneling product made of hardboard that is used in high moisture areas of the home such as kitchens and bathrooms that meets the specification for Class I hardboard as approved by the American National Standards Institute A135.4–2004.

"Interior Class II hardboard panel" means an interior wall flat wood paneling product made of hardboard that meets the specifications for Class II hardboard as approved by the American National Standards Institute A135.5–2004.

"Natural finish hardwood plywood panels" means panels whose original grain pattern is enhanced by essentially transparent finishes frequently supplemented by fillers and toners.

"Particle board" means an engineered sheet wood product manufactured from small wood chips, sawmill shavings, or sawdust and a synthetic resin or other suitable binder, which is pressed and extruded.

"Plywood" means an engineered sheet wood product manufactured with one or more thin layers of solid wood veneer in alternative orientation of the grain.

"Printed interior panels" means panels whose grain or natural surface is obscured by fillers and base coats upon which a simulated grain or decorative pattern is printed.

"Solid wood exterior siding" means siding, such as clapboard, made from a single layer of sawn natural wood. This siding may have glued joints, such as finger joints, to allow for the removal of defects, such as knots.

"Thin particleboard" is a manufactured board that is 0.25 inches or less in thickness made of individual wood particles that have been coated with a binder and formed into flat sheets by pressure.

"Waferboard" also known as flakeboard, waferboard, or chipboard, means an engineered sheet wood product manufactured from machined wood chips and a synthetic resin or other suitable binder, which is pressed and extruded.

(c) Standards.

- (1) Except as provided in 5-253.12(d), no owner or operator of a flat wood paneling coating line subject to this section shall cause or allow the application of coatings with a volatile organic compound content, as applied and based on a weighted daily average of all such coatings for each flat wood paneling category in excess of the following emission limits:

Flat Wood Paneling VOC Content Emission Limits	
Flat wood paneling category	Grams/liter (lbs/gal) <sup>a</sup>
All flat wood paneling, except solid wood exterior siding covered below.	250 (2.1)
Solid wood exterior siding of cedar, hemlock, mahogany and redwood species at a stationary source whose actual emissions from all coating lines within the source are less than 50 tons of volatile organic compounds per 12-month rolling period.	325 (2.9)
<sup>a</sup> VOC content values are expressed in units of mass of VOC per volume of coating, excluding water and exempt compounds, as applied.	

- (2) Work Practices. The owner or operator of a flat wood paneling coating line subject to this section shall control VOC emissions from VOC containing coatings, thinners, cleaning materials, and coatings and cleaning related waste materials by using the following work practices:
- (i) Storing all VOC containing materials including coatings, thinners, cleaning materials, and coating and cleaning related waste materials including used shop towels, in nonabsorbent, non-leaking closed containers;
  - (ii) Keeping such containers closed at all times except when depositing or removing VOC containing materials;
  - (iii) Collecting all cleaning solvents into normally closed containers after cleaning and as appropriate reclaiming for reuse as a cleaning solvent or as a thinner for coatings provided the as applied VOC contents of such coatings comply with the limitations in this section;
  - (iv) Minimizing and immediately cleaning up spills of VOC containing materials;
  - (v) Conveying VOC containing materials from one location to another in closed containers or pipes; and

- (vi) Minimizing emissions of VOC during cleaning of storage, mixing, and conveying equipment.
- (d) Control devices.
- (1) As an alternative to compliance with the emission limits in paragraph (c) of this section, an owner or operator of a flat wood paneling coating line may comply with this section by:
    - (i) Installing and operating a capture system and control device on that line; and
    - (ii) Demonstrating that the overall emission reduction efficiency achieved for that line is greater than 90%.
      - (A) The collection efficiency of the fugitive emissions will be determined pursuant to EPA's "Guidelines For Developing Capture Efficiency Protocols."
      - (B) The efficiency of the control device and the VOC content measured and calculated as carbon in the control device exhaust gases shall be determined by EPA Test Methods 25 and 25A as described in CFR Title 40 Part 60, or by other methods approved by the Agency and the EPA,
      - (C) The achieved overall emission reduction efficiency shall be determined by multiplying the collection efficiency by the efficiency of the control device.
  - (2) An owner or operator of a flat wood paneling coating line subject to this section shall ensure that:
    - (i) A capture system and control device, if used, are operated at all times that the line is in operation, and the owner or operator demonstrates compliance with this section in accordance with the coating analysis and capture system and control device efficiency test methods specified by the Air Pollution Control Officer and EPA; and
    - (ii) The control device is equipped with the monitoring equipment required by the Air Pollution Control Officer, and such equipment is installed, calibrated, operated and maintained according to the vendor's specifications at all times the control device is in use. The monitoring equipment shall monitor the following parameters:
      - (A) Combustion chamber temperature of each thermal incinerator or afterburner;

- (B) Temperature before the catalyst bed and temperature rise across each catalytic incinerator bed; and
  - (C) The VOC concentration of the inlet and outlet from each carbon adsorption bed.
- (e) Record keeping and reporting.
  - (1) The owner or operator of a coating line complying with paragraph (c) of this section by means of the use of complying coatings shall collect and record all of the following information each month for each coating line and maintain the information at the source for a period of 5 years:
    - (i) The name and identification number of each coating, as applied, used to coat each type of flat wood paneling product; and
    - (ii) The pounds of VOC per gallon of coating as applied, (excluding water and exempt compounds) for each coating type recorded for 5-253.12(e)(1)(i).
    - (iii) Calculate the monthly weighted average VOC content for all coatings applied on each flat wood paneling coating line for each type of flat wood paneling product.
  - (2) The owner or operator of any coating line complying with this section by the use of control devices shall perform such compliance testing, keep such records and furnish such reports as required by the Air Pollution Control Officer to demonstrate continuing compliance with this section.