Formaldehyde Emission Standards for Composite Wood Products
Presentation Overview

1. Background TSCA Title VI
2. Regulation summary
3. Regulated products
4. Product exemptions
5. Emissions limits
6. Compliance Timeline
7. Exemptions for Products
8. Impacted entities—rule framework
9. Responsibilities under Title VI
10. Stockpiling
11. Partial third-party certification exemptions & reduced testing
12. Petition for additional laminated products exemptions
• On July 7, 2010, the Formaldehyde Standards for Composite Wood Products Act was signed into law to become the Toxic Substance Control Act (TSCA) Title VI.

• TSCA Title VI establishes formaldehyde emission standards identical to the California Air Resources Board (CARB) limits.

• TSCA Title VI directs the implementation of regulations to ensure compliance with formaldehyde emission standards.
• TSCA Title VI requires that composite wood products be tested, ensuring only compliant products enter the product supply chain.

• Composite wood products must be certified by an EPA-recognized third-party certifier, also called an EPA TSCA Title VI TPC.

• Composite wood products covered under TSCA Title:
  1. Hardwood Plywood
  2. Medium-Density Fiberboard, including thin-MDF
  3. Particleboard

• The new regulation includes a number of areas to ensure compliance including recordkeeping, reporting, and labeling.

• All applications and notifications submitted to EPA under the final rule must be done through the EPA Central Data Exchange at: https://cdx.epa.gov
Regulated composite wood products under TSCA Title VI include:

1. **Hardwood Plywood (HWPW):** Hardwood or decorative panel that is intended for interior use and composed of an assembly of layers or plies of veneer, joined by adhesive with a lumber core (or any other special core or special back).

2. **Medium Density Fiberboard (MDF):** Panel composed of cellulosic fibers made by dry forming and pressing a resonated fiber mat.

3. **Particleboard (PB):** A panel composed of cellulosic material in the form of discrete particles (as distinguished from fibers, flakes, or strands) that are pressed together with resin.

4. **Laminated Product:** Product with wood, or woody grass veneer affixed to a composite wood platform by a fabricator as a finished product or a component part.
Regulated products must meet the emission standards beginning the date 1-year after publication of the final rule:

<table>
<thead>
<tr>
<th>Product</th>
<th>Emission Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardwood Plywood – Veneer Core</td>
<td>0.05 ppm of formaldehyde</td>
</tr>
<tr>
<td>Hardwood Plywood – Composite Core</td>
<td>0.05 ppm of formaldehyde</td>
</tr>
<tr>
<td>Medium-Density Fiberboard</td>
<td>0.11 ppm of formaldehyde</td>
</tr>
<tr>
<td>Thin Medium-Density Fiberboard</td>
<td>0.13 ppm of formaldehyde</td>
</tr>
<tr>
<td>Particleboard</td>
<td>0.09 ppm of formaldehyde</td>
</tr>
</tbody>
</table>
Compliance

Composite Wood Product Manufacture-by date

• Composite wood products and finished goods containing these products that are sold, supplied, offered for sale, or manufactured must comply with the rule as of the manufacture-by date.

• **Composite Wood Product Manufacture-by date** = date 1-year after date of publication of the rule in the *Federal Register*.

• Under TSCA “manufacture” includes import, so “manufactured-by” = “imported-by” date for imported composite wood products or finished goods containing them.

• Composite wood products or finished goods manufactured/imported **before** the specified manufactured-by date are not subject to the rule.

  • They can be incorporated into finished goods at any time. Retailers, fabricators, and distributors are permitted to continue to buy and sell these composite wood products and laminated products, as well as finished goods that incorporate these products.

  • Must have records documenting panels or finished good containing regulated composite wood was in the inventory or imported prior to the manufacture-by date.
Compliance

• **Laminated Products Manufacture-by date** = the date 7-years after date of publication of the rule in the *Federal Register*

• Before this date all laminated product producers must comply with the general requirements for fabricators.

• After this date, laminated product producers must either obtain an exemption from the definition of HWPW or comply with the testing, certification, and recordkeeping requirements for HWPW producer in addition to requirements for fabricators.

• Producers of HWPW exempt laminated products must maintain records that demonstrate eligibility for the exemption in order to claim the exemption.
Timeline

Compliance Dates

- Rule published.
- Rule becomes effective.
- HCHO emissions standards and measures that ensure compliance take effect.
- Imports must have TSCA 13 import certification.
- Laminated products not-exempted from classification as HWPW must meet emissions standards.

- 60 days after publication in the Federal Register
- 1 year after publication in the Federal Register
- 2 years after publication in the Federal Register
- 7 years after publication in the Federal Register
The following products are exempted from the final rule:

1) Hardboard
2) Structural plywood
3) Structural panels
4) Structural composite lumber
5) Military-specified plywood
6) Curved plywood
7) Oriented strand board
8) Glued laminated lumber
9) Prefabricated wood I-joists
10) Finger-jointed lumber
11) Wood packaging (e.g., pallets, crates, spools, dunnage)
12) Composite wood products used inside a new vehicle other than a recreational vehicle, such as:
   • Rail cars, boats, and aircraft
13) Windows that contain composite wood products if the windows contain less than 5% composite wood product by volume.
14) Exterior doors and garage doors that contain composite wood products, if:
   • The doors are made from composite wood products manufactured with NAF of ULEF resins; or
   • The doors contain less than 3% composite wood product by volume.

Finished goods previously sold/supplied or purchased for purposes other than resale are exempt.
Each entity must fulfill certain requirements to ensure that only compliant composite wood products enter the supply chain.
Responsibilities Under TSCA Title VI

Under TSCA Title VI, **accreditation bodies (ABs)** are responsible for the following:

1. Ensuring third-party certifiers (TPCs) and/or their laboratories meet international voluntary consensus standards by determining the accreditation eligibility and accreditation of TPCs and/or laboratories.

2. Providing notifications to EPA for specific events pertaining to status change of TPCs or change to AB information.

3. Maintaining records and submitting annual reports to document TPC compliance with requirements for assessment, reassessment, and surveillance on-site assessments.

4. *Laboratory ABs* must also verify the accuracy of proficiency testing programs.
Responsibilities Under TSCA Title VI

Third Party Certifiers

• TPCs must apply to and be recognized by EPA before certifying any composite wood products.

• CARB TPC Reciprocity: During 2-yr transition period, CARB TPCs may certify composite wood products after being recognized by EPA (do so by the 1-yr date) without yet having received accreditation from an EPA-recognized AB.

• Before the 2-yr transition period ends, CARB TPCs must obtain accreditation by an EPA-recognized AB to retain EPA recognition under reciprocity.

Under TSCA Title VI, third party certifiers are responsible for the following:


2. Providing notifications to EPA about status changes for panel producers and TPCs.

3. Maintaining records and submitting annual reports to document panel producer’s compliance with quality assurance and quality control standards.

4. Using laboratories that have been accredited to ISO/IEC 17025:2005(E) by an EPA-Recognized Laboratory AB.

5. Identifying an “agent for service” located in the U.S. if not a domestic entity.

6. Acting impartially in accordance with their accreditation when performing activities under the EPA program by taking steps to address any conflicts of interest.
Under TSCA Title VI, **panel producers** are responsible for the following:

1. Applying for and receiving third-party certification of regulated products by an EPA-recognized TPC.

2. Conducting quality control tests on a regular basis to ensure regulated composite wood products meet emission standards.
   - For particleboard and MDF, at least **once per 8-hour shift** for each product line for each production type (unless reduced testing has been approved).
   - For HWPW, varies (x times per week or month) by square feet of product produced.

3. Meeting reporting and recordkeeping requirements, and ensuring that all quality control requirements are met.

4. Labeling products they produce either separately or by the bundle.
Fabricators (including laminated product producers) are responsible for the following:

1. Ensure they purchase only compliant composite wood products, whether unfinished panels or incorporated into component parts or finished goods.

2. Keep records documenting supplier’s information if they purchase products directly from a wood product mill.

3. Maintain additional records if they fabricate laminated products

4. Labeling any finished goods they produce or every box/bundle containing finished goods they produce.

5. Get non-exempt laminated product tested and certified by an EPA-approved TPC 7 years after the rule is published in the Federal Register.
Responsibilities Under TSCA Title VI

• Fabricators may also be laminated product producers.

• A laminated product producer is:
  • a manufacturing plant or other facility that manufactures (excluding facilities that solely import products) laminated products on the premises.

• A laminated product is:
  • a product in which a wood or woody-grass veneer affixed to a regulated composite wood product platform under TSCA Title VI
  • a component part used in the construction or assembly of a finished good

Laminated products made with:

- Formaldehyde-based resins (other than phenol-formaldehyde) to attach a veneer to composite wood products must be tested and certified to meet the HWPW emission standard 7 years after rule promulgation.

- Phenol-formaldehyde (PF) resin or NAF resin to attach a veneer to an already compliant platform are exempt from testing and certification.
Importers, distributors, and retailers are responsible for the following:

1. Ensuring they purchase only compliant composite wood products, whether unfinished panels or incorporated into component parts or finished goods.

2. Ensuring labels stay intact on individual items or on file if items were purchased by the bundle and sold separately (label information must be made available to potential customers upon request).

3. Using a method sufficient to identify the supplier of the panel or finished good, and linking the information on the label to the product.

4. Importers must also provide an import certification for all imports 2 years after publication of the final rule.
Other Provisions: **Stockpiling**

- Regulated entities are not permitted to sell any composite wood products or finished goods containing composite wood products if they have been stockpiled.

- Products are considered stockpiled when:
  - Manufacturing or purchasing composite wood products between July 7, 2010 and 180 calendar days after promulgation of the final regulations at an average annual rate 20 percent greater than the amount manufactured or purchased during the 2009 calendar year, for the purpose of circumventing the TSCA Title VI emission standards.
  - Not stockpiling if manufacturing or purchasing products for legitimate business reasons: higher rate because of increased demand, natural disaster, or planned business expansion, etc.
• Panel producers may seek reduced testing or partial third-party certification exemption for the use of NAF or ULEF resins.

• CARB or EPA-approved TPCs must review and approve applications.

• After the initial 2 year exemption, panel producers must reapply every two years to continue to qualify for the NAF and ULEF exemptions.

• TPCs may also approve reduced quality control testing for particleboard and medium density fiberboard.
Other Provisions: Petition for Additional Laminated Product Exemption

- Laminated products that use PF or NAF resins to attach a veneer to an already compliant platform are exempt from the definition of HWPW and the testing and certification requirements that become effective 7 years after the publication of the final rule.

- Any person may petition the Agency to expand the exemption for laminated products from the definition of the term “hardwood plywood”.
  - Petitions should include all available and relevant information, including but not limited to studies conducted and emissions data to support the petition.

- EPA will review each submitted petition and, where appropriate, publish a proposed rule in the Federal Register based on the petition with a public comment period of generally 30 days before taking a final action.
Erik Winchester, Chief
Fibers and Organics Branch
202-564-6450
winchester.erik@epa.gov

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