

Small Entity Compliance for Formaldehyde Standards in Composite Wood Products

Panel Producers

National Program Chemicals Division
Office of Pollution Prevention and Toxics
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Background on TSCA Title VI

- On July 7, 2010, the Formaldehyde Standards for Composite Wood Products Act was signed into law to become Toxic Substances 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.
- The final rule is available in the Federal Register under 40 CFR Part 770 and posted online at <https://www.regulations.gov/document?D=EPA-HQ-OPPT-2016-0461-0001>.
 - Became effective on May 22, 2017.
 - Beginning June 1, 2018, composite wood products (manufactured in or imported into the U.S.) must be certified as compliant with emission standards by a CARB approved and EPA-recognized Third-Party Certifier (TPC).**
 - Until March 22, 2019, regulated products must be labelled as compliant with the TSCA Title VI or CARB ATCM Phase II emission standards. After March 22, 2019, products must be labeled as TSCA Title VI compliant.**
 - Beginning March 22, 2019, import certification is required.*
 - Beginning March 22, 2024, non-exempt laminated products become hardwood plywood and must comply with panel producer requirements.*

* The final rule extending compliance dates is [available in the Federal Register online](#).

** On March 13, 2018, the U.S. District Court for the Northern District of California, issued an order addressing the litigation over the December 12, 2018 compliance date for the formaldehyde standards for composite wood products. [Read the Federal Register Notice announcing the litigation](#).



Regulation Summary

- TSCA Title VI requires that composite wood products be tested and certified, ensuring only compliant products enter the product supply chain.
- Composite wood products must be certified by an EPA-recognized third-party certifier (TPC), also called an EPA TSCA Title VI TPC.
- Composite wood products affected under TSCA Title VI are:
 1. Hardwood Plywood;
 2. Medium-Density Fiberboard (MDF), including thin MDF; and
 3. Particleboard.

* There are limited testing and certification exemptions for no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins.
- The new regulation includes recordkeeping, reporting, and labeling requirements (see slide 25 for more information).
- All applications and notifications submitted to EPA under the final rule must be done through the EPA Central Data Exchange (CDX) at: <https://cdx.epa.gov>.

Product Exemptions

If you produce any other component parts or finished goods that contain *only* exempt products, you are not subject to the new regulation.

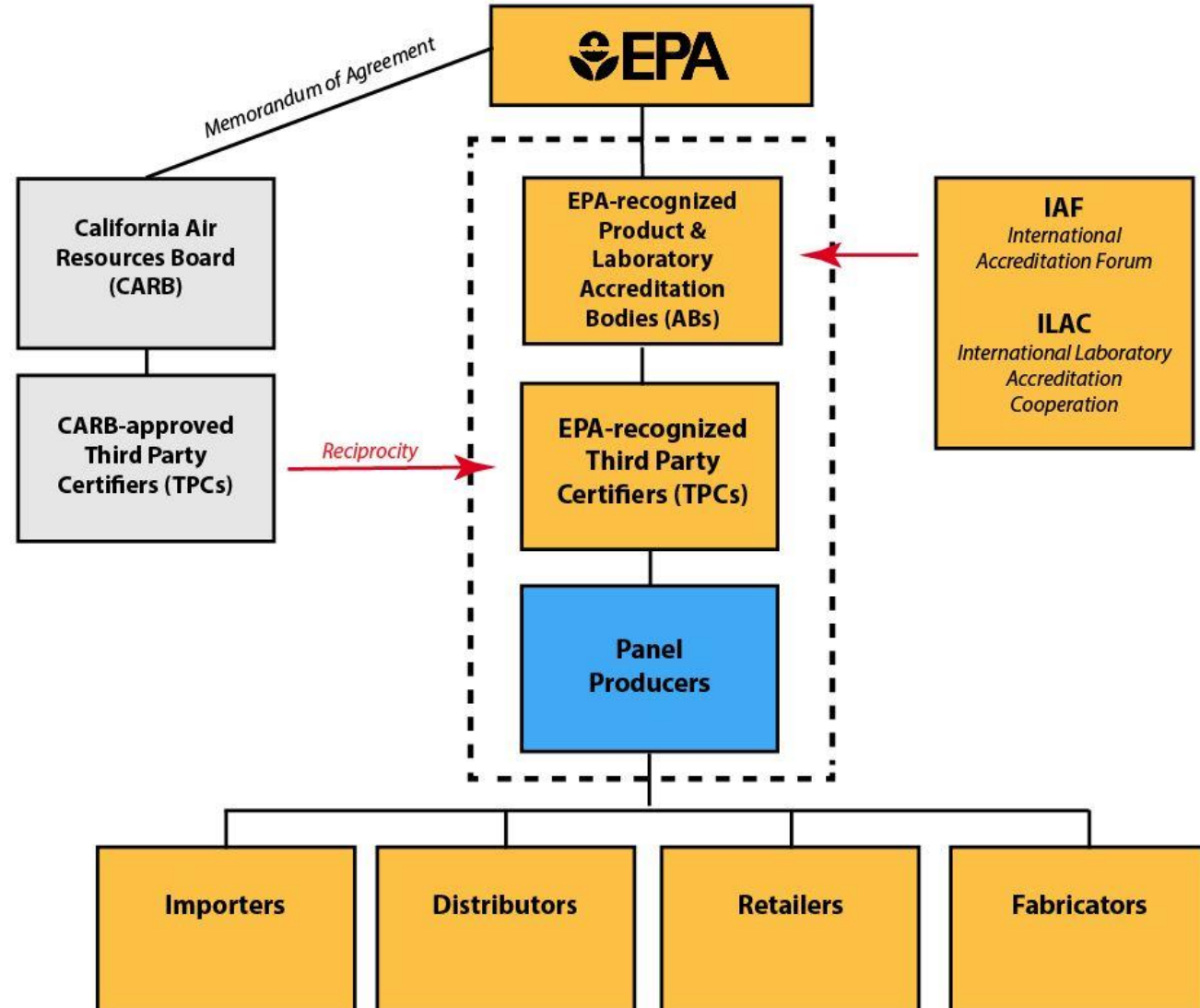
Exemptions include the following products:

- 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)
- 11) Composite wood products used inside a new vehicle other than a recreational vehicle, such as:
 - Rail cars, boats, and aircraft
- 12) Windows that contain composite wood products if the windows contain less than 5% composite wood product by volume
- 13) Exterior doors and garage doors that contain composite wood products, if:
 - The doors are made from composite wood products manufactured with NAF or ULEF resins; or
 - The doors contain less than 3% composite wood product by volume
- 14) Refurbished or antique furniture
- 15) Finished goods previously sold/supplied to an end user who purchased or acquired the finished good in good faith for purposes other than resale are exempt

Rule Framework


Each entity must fulfill certain requirements to ensure that only compliant composite wood products enter the supply chain.

The dotted line represents the EPA's third-party certification program.



Impacted Entities

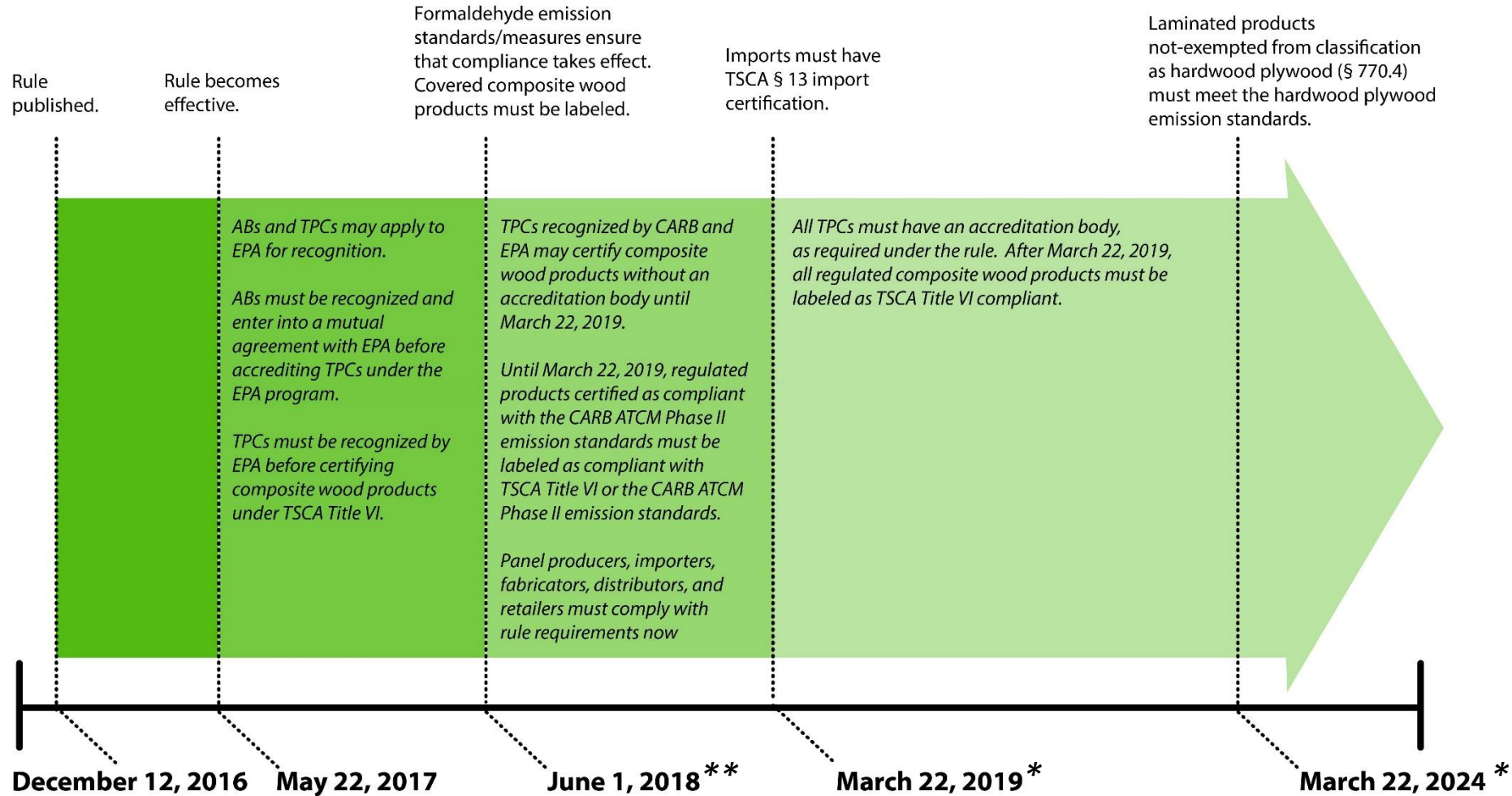
Entities in the supply chain:
Fabricators
Importers, distributors, and retailers
Third-Party Certifiers and Accreditation Bodies
Panel producers



Businesses likely to be covered under TSCA Title VI as “panel producers” include veneer, plywood, and engineered wood product manufacturing.

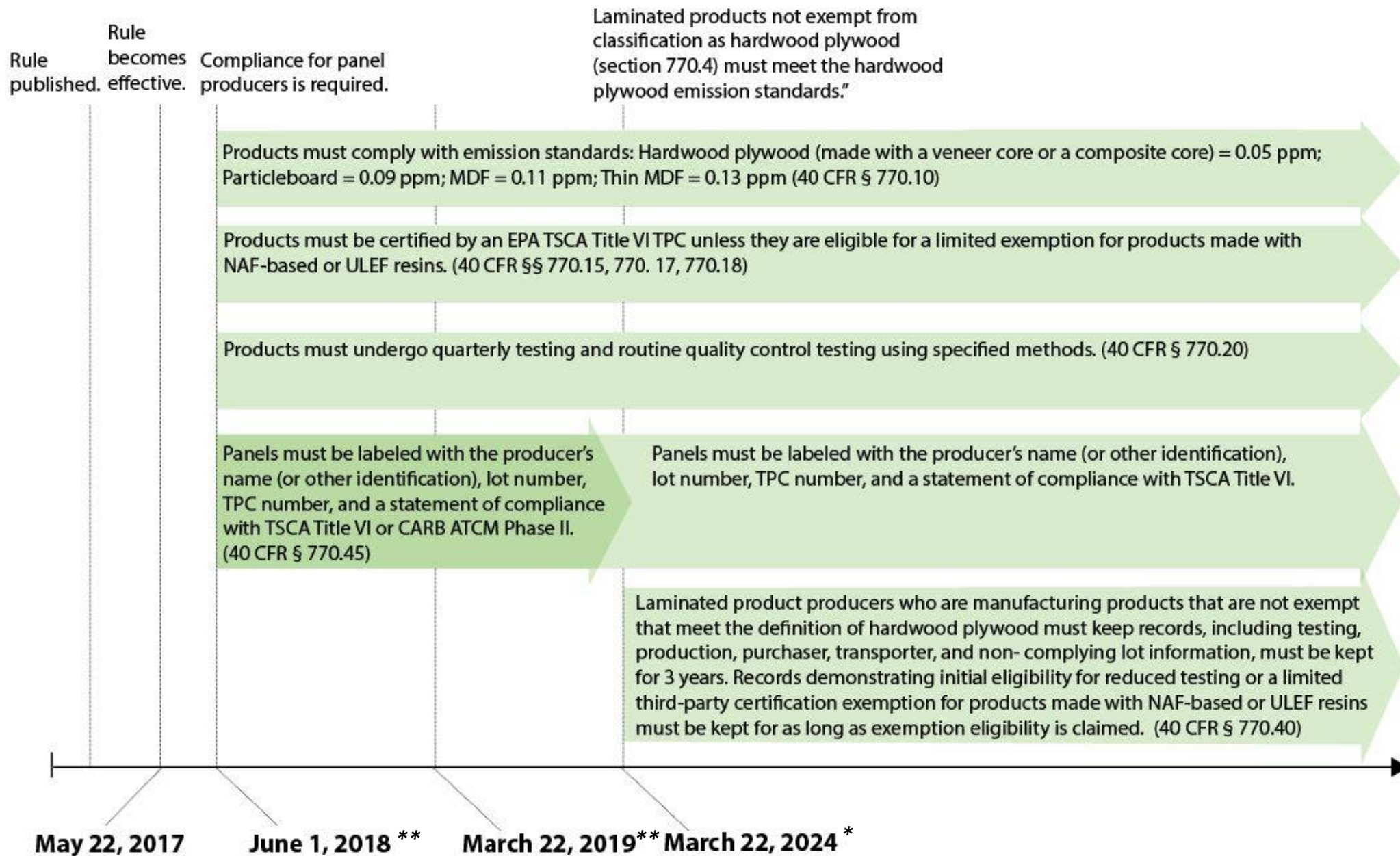
- Under TSCA Title VI, “panel producers”:
 - Refers to manufacturing plants or other facilities that manufacture composite wood products on the premises.
 - Mills that produce hardwood plywood, MDF, and/or particleboard **are** panel producers.
 - Entities that import these products, but do not produce them **are not** panel producers.
 - Applies separately to each specific facility, since facilities often have separate quality control programs.

Compliance Timeline



* The final rule extending compliance dates is [available in the Federal Register online](#).

** On March 13, 2018, the U.S. District Court for the Northern District of California, issued an order addressing the litigation over the December 12, 2018 compliance date for the formaldehyde standards for composite wood products. [Read the Federal Register Notice announcing the litigation.](#)



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Regulated Products

Regulated composite wood products under TSCA Title VI include:

- 1. Hardwood Plywood:** 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, a particleboard core, a medium-density fiberboard core, a hardboard core, a veneer 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:** 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.



Regulated Products

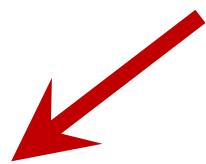
- A “panel” is a thin (usually less than two inches thick), flat, usually rectangular piece of particleboard, MDF or hardwood plywood.
- Embossing or imparting of an irregular surface on the composite wood products by the original panel producer during pressing does not remove the product from this definition.
- Cutting a panel into smaller pieces, without additional fabrication, does not make the panel into a component part or finished good.
- Items produced solely for the purpose of research and development are not “panels” within the intended meaning of TSCA Title VI and do not require certification unless they are sold, supplied, or offered for sale.



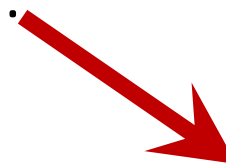
Regulated Products

- Some laminated product producers will be regulated as hardwood plywood panel producers under TSCA Title VI.
- A laminated product:
 - Is a component part used in the construction or assembly of a finished good.
 - Has a wood or woody-grass veneer affixed to a particleboard, MDF, or veneer core or platform under TSCA Title VI.
 - Is produced by either the fabricator of the finished good in which the product is incorporated or a fabricator who uses the laminated product in the further construction or assembly of a component part.

Laminated products made with:



Phenol-formaldehyde resins or NAF resins to attach a veneer to an already compliant platform are **exempt** from the definition of hardwood plywood.



Urea formaldehyde-based resins to attach a veneer to composite wood products are considered panel producers and are **not exempt** from the definition of hardwood plywood.



Laminated Products Exemption Petition

- Laminated products where phenol-formaldehyde resins or NAF resins are used to attach a veneer to an already compliant platform are exempt from the testing and certification requirements that would otherwise apply beginning March 22, 2024.
- EPA also included a provision in the final rule so that any person may petition the Agency to expand the exemption for laminated products from the definition of the term “hardwood plywood.”
- 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 to expand the exemption for laminated products to include additional exemptions.

How to Comply



Your Responsibilities Under TSCA Title VI

1. You must conduct quality control tests on a regular basis to ensure regulated composite wood products meet emission standards.
2. You must apply to and have regulated products certified by an EPA TSCA Title VI TPC.
3. You must follow reporting and recordkeeping requirements, ensuring that all quality control requirements are being met.
4. You must label products you produce either separately or by the bundle.





Stockpiling

- You are not permitted to sell any composite wood products or finished goods containing composite wood products if they have been stockpiled.
- Products are stockpiled if:
 - Between July 7, 2010 and June 12, 2017 you have purchased at least 20% greater than your average rate of purchase during the 2009 calendar year; and
 - You purchased the products at a higher rate specifically to circumvent emission standards.
- Products are not stockpiled when:
 - Composite wood products are manufactured or purchased for legitimate business reasons at a higher rate, because of increased demand, natural disaster, planned business expansion, etc.



Product Certification

If the EPA TSCA Title VI TPC or CARB-approved TPC has not provided any previous certifications to the panel producer, product certification applications must have:

- 1) Panel producer's name, address, telephone number, and other contact information;
- 2) A copy of the panel producer's quality control manual as required by 40 CFR §770.21(a);
- 3) Name and contact information for the panel producer's quality control manager;
- 4) Identification of specific products for which certification is requested, and the resin system used in panel production;
- 5) At least five tests conducted under the supervision of the TPC pursuant to ASTM E1333-14 or ASTM 6007-14;
- 6) At least five quality control tests conducted in accordance with 40 CFR §770.20(b)(1);
- 7) Linear regression equation and correlation data; and
- 8) Results of an initial, on-site inspection by the TPC of the panel producer.



Product Certification

Applications to an EPA TSCA Title VI TPC for certification of a new product type must contain:

- 1) Panel producer's name, address, telephone number, and other contact information;
- 2) An identification of the specific products for which certification is requested, and the resin system used in panel production;
- 3) At least five tests conducted under the supervision of an EPA TSCA Title VI TPC pursuant to test method ASTM E1333–14 or ASTM D6007–14;
- 4) At least five quality control tests conducted in accordance with 40 CFR §770.20(b)(1);
- 5) Linear regression equation and correlation data; and
- 6) A description and copy of any changes in the panel producer's quality control manual.



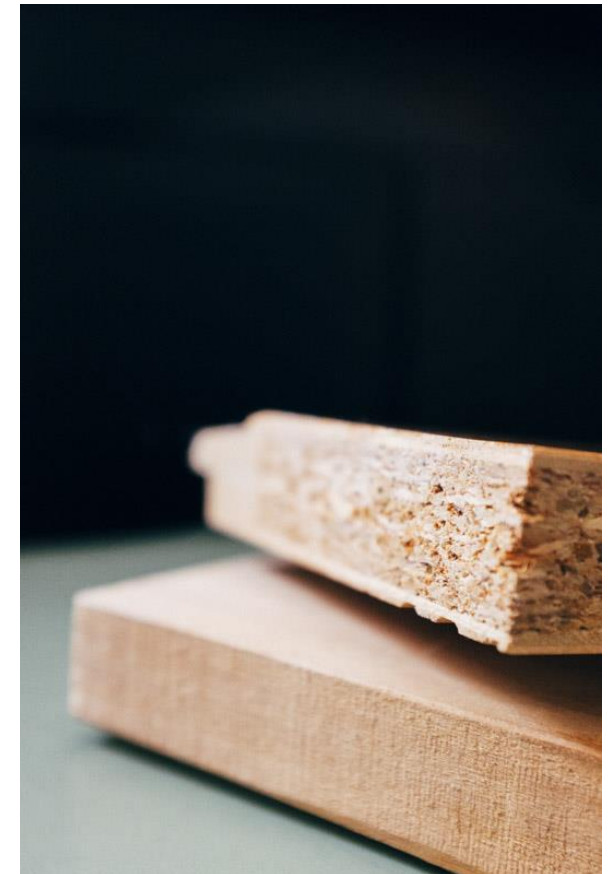
Quality Control Testing

- Regulations require quarterly testing and quality control testing to monitor day-to-day operation and ensure that changes in production do not result in non-complying lots.
- Testing can be done at the facility if there is testing equipment on-site.
- Approved quality control test methods showing correlation to ASTM E1333-10 include:
 1. ASTM D6007-14;
 2. ASTM D5582-14;
 3. BS EN ISO 13460-3:2015 (Gas Analysis Method);
 4. DMC (Dynamic Micro Chamber), 2007 User's Manual;
 5. DMC (Dynamic Micro Chamber), 2012 GP User's Manual;
 6. BS EN ISO 120 (Perforator Method); and
 7. JIS A 1460:2015 (24-hr Desiccator Method).



Regulated products must meet the emission standards beginning June 1, 2018:

Product	Emission Standard
Hardwood Plywood – Veneer Core	0.05 ppm of formaldehyde
Hardwood Plywood – Composite Core	0.05 ppm of formaldehyde
Medium-Density Fiberboard (MDF)	0.11 ppm of formaldehyde
Thin MDF	0.13 ppm of formaldehyde
Particleboard	0.09 ppm of formaldehyde



These emission standards apply regardless of whether a panel is fabricated into a component part or incorporated into a finished good.



Exemptions and Reduced Testing

- TPCs must review applications for:
 - NAF or ULEF third-party certification exemptions from testing requirements or ULEF reduced testing; and
 - A reduced number of quality control tests for particleboard and MDF.
- Applications must be approved within 90 calendar days of receipt if requirements for third-party exemption or reduced testing are met.
- After the initial two-year exemption, panel producers must reapply every two years to continue to qualify for the NAF and ULEF exemptions pursuant to 40 CFR §§770.17(e) or 770.18(g).
 - A change in the resin system invalidates the exemption for any product produced with the changed resin system.
- Reduced quality control testing for particleboard and MDF continue unless revoked by a TPC.



Loss of a TPC

- If a TPC loses its accreditation, is removed or withdraws:
 - Panel producers that used the TPC to certify products must enlist another EPA TSCA Title VI TPC to certify products within 90 calendar days if you as the panel producer *are not* implicated in the violation.
 - If unable, you may request from EPA a 90 calendar day extension.
 - You still must continue to comply with all other requirements of TSCA Title VI, including quality control testing.
 - Panel producers may not sell, supply, offer for sale, or manufacture for sale composite wood products in the U.S. until composite wood products have been recertified by another EPA TSCA Title VI TPC if you *are* implicated in the violation.



Reporting and Recordkeeping

- Panel producers must retain and make certain information available to their TPC and the direct purchaser of products:
 - Records on quarterly emission testing – 40 CFR §770.40(a)(1)
 - Records of quality control testing - 40 CFR §770.40(a)(2)
 - Production records - 40 CFR §770.40(a)(3)
 - Significant changes to production that could affect the formaldehyde emissions - 40 CFR §770.40(a)(4)
 - Records demonstrating initial and continued eligibility for reduced testing - 40 CFR §770.40(a)(5)
 - Purchaser information for each composite wood product, if applicable - 40 CFR §770.40(a)(6)
 - Transporter information for each composite wood product, if applicable - 40 CFR §770.40(a)(7)
 - Information on the disposition of non-complying lots - 40 CFR §770.40(a)(8)
 - Representative copies of labels used - 40 CFR §770.40(a)(9)



Reporting and Recordkeeping

- Monthly product data reports must be submitted to your TPC and retained for three years, for each production facility, production line, and product type.
- Product data reports must contain the following:
 1. A data sheet for each product type with emissions test and production information;
 2. A quality control graph containing the quality control limit;
 3. The shipping quality control limit (if applicable); and
 4. The results of quality control tests and any retest values.
- For panel producers approved for reduced testing or third-party certification exemption provisions:
 - Records demonstrating eligibility for these provisions must be kept for as long as the panel producer maintains approval.



- There are two labeling options:
 - Label each panel separately; or
 - Label bundles of panels (if panels are separated from the bundle, you will need a method to link them to their proper bundle, such as color-coded edge marking).
- The label can be a stamp, tag, or sticker.
- Labels must include:
 1. Panel producer name (or number);
 2. Lot number;
 3. Identification number of EPA TSCA Title VI TPC; and
 4. Statement that the products are TSCA Title VI certified.

*Note: If you are approved for reduced-testing or third-party certification exemption provisions for NAF-based or ULEF resins, you are not required to label your products as being made with these resins.

NOTE: Until March 22, 2019, regulated products certified as compliant with the CARB ATCM Phase II emission standards must be labeled as compliant with TSCA Title VI or CARB ATCM Phase II emission standards (which are set at identical levels).

After March 22, 2019, regulated products manufactured in or imported into the U.S. may not rely on CARB reciprocity (40 CFR 770.15(e)) and must be certified and labeled as TSCA Title VI compliant.

For More Information



Contact your EPA regional office for specific local requirements.



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