Benchmark International, LLC

EPA TSCA Title VI Laminated Products

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BENCHMARK

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WHO IS BENCHMARK?

- ISO/IEC 17065 Product Certification (IAS PCA-109)
- ISO/IEC 17025 Laboratory Test (IAS TL-280)
- ISO/IEC 17020 Third-Party Inspection (IAS AA-660)
- JAS Registered Overseas Certifying Body (ROCB)
- EPA & CARB-approved Third-Party Certifier (TPC-2)
- Accredited CANFER Third-Party Certifier
- NALFA-Recognized Test Laboratory
- Amazon SPN Preferred Provider for Compliance Services
- USGBC & CalEPA-Recognized Certification Agency: VOC Green
- KCMA-Recognized Composite Wood Sustainability Certification Program (CWSS)

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AGENDA:

1. TSCA Title VI Regulations – How did we get here?
2. What is the difference between composite wood panels and laminated products?
3. What does TSCA Title VI require of laminated product producers?
4. What is the Laminated Products Exemption and how do I qualify?
5. Does this requirement apply to my Supply Chain?
6. If I don’t qualify for the Laminated Products Exemption, what are my options?
7. How do I get certified if need be?

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PART 1: TSCA Title VI Regulations – How did we get here?

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What North American regulations/standards govern formaldehyde?

Location	Standard/Regulation	Acronym	Status	Agency	Jurisdiction
USA	CARB ATCM 93120	“CARB”	**Mandatory**	California Air Resources Board (CARB)	State of California
USA	EPA TSCA Title VI (40 CFR Part 770)	”EPA” or “TSCA”	**Mandatory**	U.S. Environmental Protection Agency (EPA)	All U.S. States and Territories
Canada	Canada Formaldehyde Emissions of Composite Wood Products Regulation (CANFER)	“CANFER”	**Mandatory**	Health Canada & Canada Minister of Environment (Minister)	All Canadian Provinces and Territories
Canada	Formaldehyde Emissions Standards of Composite Wood Products (CAN/CSA 0160-16)	“CAN/CSA”	Voluntary	Standards Council of Canada (SCC)	Superseded by CANFER

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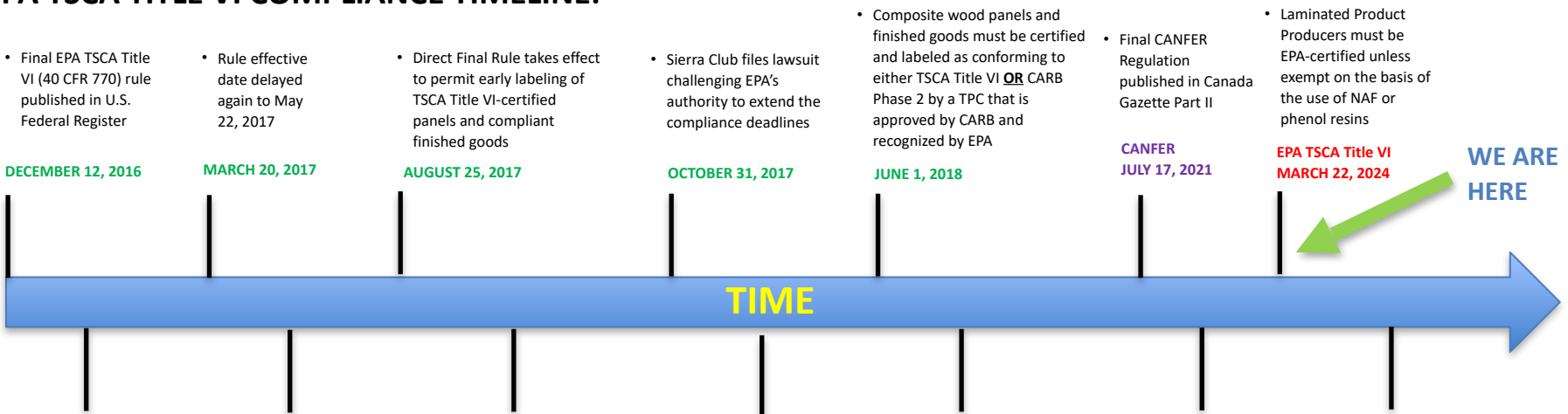
EPA TSCA TITLE VI COMPLIANCE TIMELINE:



DECEMBER 12, 2016
- Final EPA TSCA Title VI (40 CFR 770) rule published in U.S. Federal Register

JANUARY 26, 2017
- Rule effective date delayed by Executive Order to March 21, 2017

MARCH 20, 2017
- Rule effective date delayed again to May 22, 2017

MAY 22, 2017
- EPA TSCA Title VI (40 CFR 770) takes effect
- Accreditation Bodies (AB) can apply for EPA recognition
- CARB TPC's can apply for EPA recognition (reciprocity)

AUGUST 25, 2017
- Direct Final Rule takes effect to permit early labeling of TSCA Title VI-certified panels and compliant finished goods

SEPTEMBER 25, 2017
- Final Rule published to extend manufacturer/ importer compliance deadline to December 12, 2018; other compliance deadlines also extended

OCTOBER 31, 2017
- Sierra Club files lawsuit challenging EPA's authority to extend the compliance deadlines

MARCH 13, 2018
- U.S. District Court for Northern District of California issues order to resolve Sierra Club litigation; final compliance deadlines established by joint stipulation agreement

JUNE 1, 2018
- Composite wood panels and finished goods must be certified and labeled as conforming to either TSCA Title VI **OR** CARB Phase 2 by a TPC that is approved by CARB and recognized by EPA

MARCH 22, 2019
- Products must be certified and labeled as conforming to TSCA Title VI; CARB Phase 2 no longer accepted outside California
- Import certification rule takes effect
- Transition period for CARB TPC's ends; TPC's must comply with additional accreditation requirements to remain EPA-recognized

CANFER
JULY 17, 2021
- Final CANFER Regulation published in Canada Gazette Part II

CANFER
JANUARY 7, 2023
- Composite wood panels and finished goods must be certified and labeled as conforming to CANFER

EPA TSCA Title VI
MARCH 22, 2024
- Laminated Product Producers must be EPA-certified unless exempt on the basis of the use of NAF or phenol resins

CANFER
JANUARY 7, 2028
- Laminated Product Producers must be CANFER-certified unless exempt on the basis of the use of NAF or phenol resins

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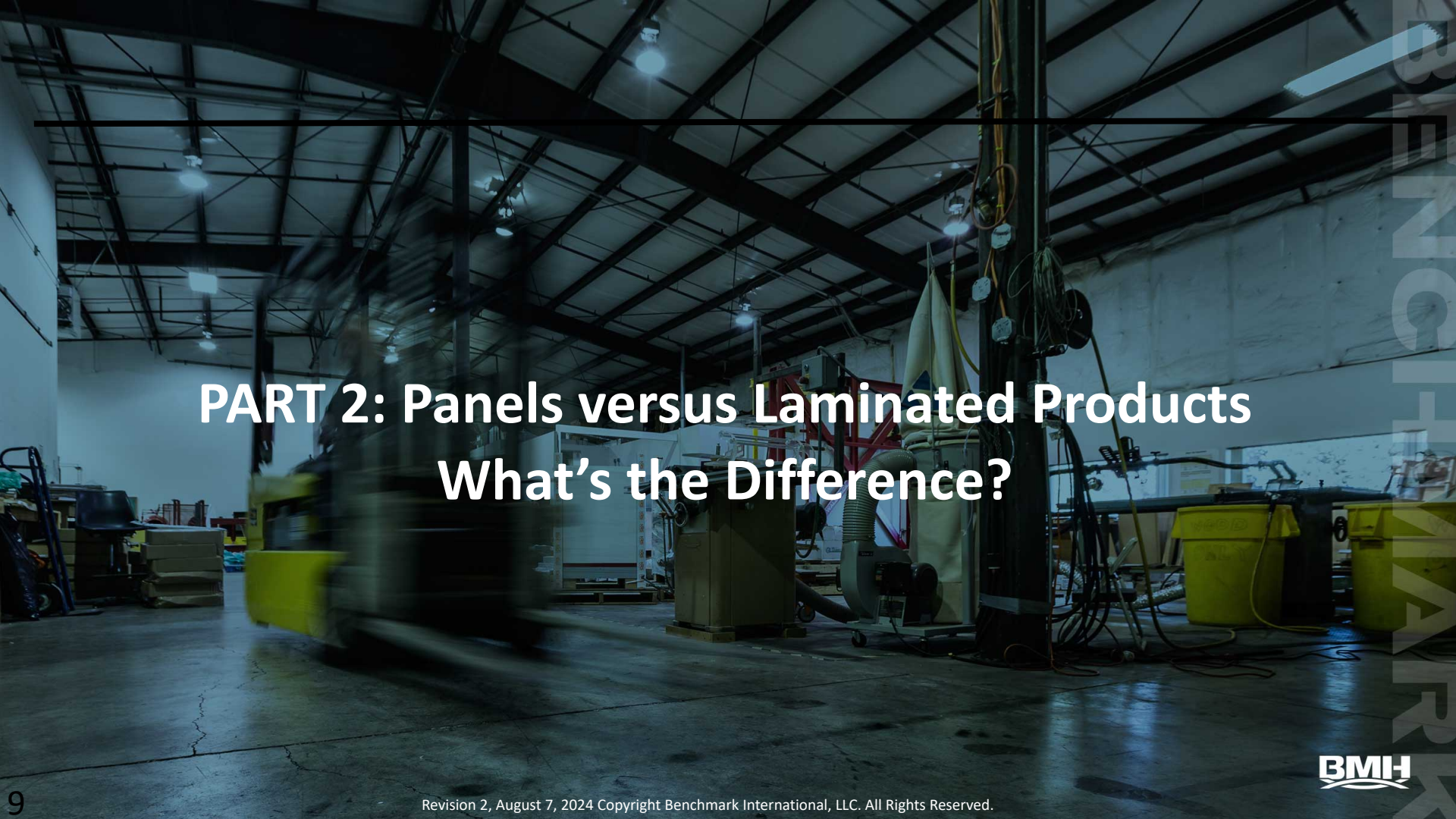

PART 2: Panels versus Laminated Products What's the Difference?

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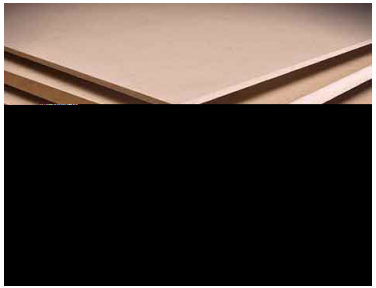
What is a Composite Wood Panel?

- A thin (usually less than 2” thick), flat, (usually rectangular) board made from pieces, chips, particles, veneers, or fibers of wood bonded together with a resin.
- Dimensions are irrelevant; panels can be any size or shape.
- For CARB, EPA, & CANFER purposes, composite wood panels include:
  - Medium Density Fiberboard (MDF)
  - Thin-Medium Density Fiberboard (Thin-MDF) - MDF with a total thickness ≦8mm
  - Particleboard (PB)
  - Hardwood and Decorative Plywood Veneer Core (HWPW-VC)
  - Hardwood and Decorative Plywood Composite Core (HWPW-CC)



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I don’t qualify for the Laminated Products Exemption, now what?

Level	Requirement		Description
Bronze	Completed application including name, address, other contact info	✓	Submit to TPC
	Approved Formaldehyde Emissions Quality Control Manual	✓	Required for all manufacturers including NAF/ULEF Exempt
	Types of Products to be Certified and Resin Systems Used	✓	Must specify each individual panel construction and the resin systems to be certified
	Initial Qualification Tests per ASTM E1333 or ASTM D6007	✓	Minimum 5 tests per product group (Laminated VC, Laminated CC and/or others)
	QC Test Method Correlation	✓	QC Test Method vs. either ASTM E1333 or ASTM D6007 (required only if conducting QC testing on-site or if using an unaccredited contract laboratory)
TPC Certification	Test results per Manufacturer’s QC Test Method	✓	• Minimum 5 manufacturer QC tests per product group • Can be done in conjunction with test method correlation
	Results of initial site audit/inspection	✓	Per EPA requirements

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I don’t qualify for the Laminated Products Exemption, now what?

Level	Requirement		Description
Silver	Completed application including name, address, other contact info	✓	• PRE-REQUISITE: THIRD PARTY CERTIFICATION (BRONZE LEVEL)
	Types of Products to be Certified and Resin Systems Used	✓	Must specify each panel construction to be certified
	Chemical Formulation of the candidate resin system(s)	✗	• Not required per TSCA Title VI • Only required if seeking exemption for panel production per CARB ATCM 93120; not applicable to laminated products
	Name of Third-Party Certifier	✓	Must be reported to EPA at the time the ULEF-reduced testing approval is granted by TPC
ULEF-Reduced Certification	Initial Qualification Tests per ASTM E1333/ASTM D6007	✓	• Minimum 2 qualification tests per product group • No test result greater than: ➢**HWPW:** 0.05 ppm max ➢**PB:** 0.08 ppm max ➢**MDF:** 0.09 ppm max ➢**Thin-MDF**: 0.11 ppm max

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I don’t qualify for the Laminated Products Exemption, now what?

Level	Requirement		Description
Silver	Six (6) months routine QC test data	✓	• Minimum of 26 quality control tests required • No test result greater than: ➢**HWPW:** 0.05 ppm max ➢**PB:** 0.08 ppm max (90% ≤0.05 ppm) ➢**MDF:** 0.09 ppm max (90% ≤0.06 ppm) ➢**Thin-MDF:** 0.11 ppm max (90% ≤0.08 ppm)
ULEF-Reduced Certification	CARB Executive Order for ULEF-Reduced Approval	✗	Only required if seeking exemption for panel production per CARB ATCM 93120; not applicable to laminated products

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I don’t qualify for the Laminated Products Exemption, now what?

Level	Requirement		Description
Gold	Completed application including name, address, other contact info	✓	• PRE-REQUISITE: THIRD PARTY CERTIFICATION (BRONZE LEVEL)
	Types of Products to be Certified and Resin Systems Used	✓	Must specify each panel construction to be certified
	Chemical Formulation of the candidate resin system(s)	✗	• Not required per TSCA Title VI • Only required if seeking exemption for panel production per CARB ATCM 93120; not applicable to laminated products
	Name of Third-Party Certifier	✓	Must be reported to EPA at the time the ULEF-reduced testing approval is granted by TPC
ULEF-Exempt Certification	Initial Qualification Tests per ASTM E1333/ASTM D6007	✓	• Minimum 2 qualification tests per product group • All test results must be ≤0.04 ppm regardless of product type

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I don’t qualify for the Laminated Products Exemption, now what?

Level	Requirement		Description
Gold	Six (6) months routine QC test data	✓	• Minimum of 26 quality control tests required • No test result greater than: ➢**HWPW:** 0.05 ppm max (90% must be ≤0.04 ppm) ➢**PB:** 0.06 ppm max (90% must be ≤0.04 ppm) ➢**MDF:** 0.06 ppm max (90% must be ≤0.04 ppm) ➢**Thin-MDF:** 0.06 ppm max (90% must be ≤0.04 ppm)
ULEF-Exempt Certification	CARB Executive Order for Exempt Approval	✗	Only required if seeking exemption for panel production per CARB ATCM 93120; not applicable to laminated products

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PART 7: How do I get certified, if need be?

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How do I Get Certified if Need Be?

1. Don’t wait to get started – TPC and test chamber availability is limited worldwide
2. Contact an EPA-approved TPC to discuss your product types and resin systems to verify eligibility for the Laminated Products Exemption or to confirm the best path to certification.
3. Engage your resin supplier for assistance
4. Define your resin production/mixing recipes and procedures
5. Establish minimum/maximum resin application rates for each product type (g/m^2 or lbs/ft^2)
6. Define minimum/maximum press operating conditions:
   a) Cold Press:
      - Press Cycle Time
      - Pressure
   b) Hot Press:
      - Press Cycle Time
      - Pressure
      - Temperature

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How do I Get Certified if Need Be?

7. Define/implement product changeover procedures as needed:
    a) cleaning procedures for resin mixers/applicators
    b) Resin application rate verification
    c) Press setup/verification
8. Send preliminary samples to the TPC to verify emissions are likely to meet TSCA Title VI standards
9. Prepare your quality control manual and submit to TPC for approval
10. Setup quality control test laboratory or designate a qualified test laboratory to conduct quality control testing on your behalf

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How do I Get Certified if Need Be?

11. Get critical quality control instrumentation calibrated by a qualified provider:
    a) Press monitoring equipment (manometers and temperature gauges)
    b) Resin production equipment (viscometers, calorimeters, scales used to measure resin ingredients, etc.)
    c) Scales used to verify resin application rates
    d) Laboratory test equipment (if performance formaldehyde QC testing internally)
12. Prepare product labels and bills of lading/invoices with required compliance information
12. Work with TPC to complete initial site audit and qualification testing
13. Work with TPC to obtain QC test method correlation (if conducting QC testing internally or using an unaccredited test laboratory)
14. Corrective action, if needed.
15. CERTIFICATION GRANTED!

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Question & Answer

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