

# California's Composite Wood Products ATCM

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## 2007 AHFA Annual Environmental Summit

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*Jim Aguila, Manager  
Substance Evaluation Section*

California Environmental Protection Agency



**Air Resources Board**

# Californians Buy Furniture

- Total California sales = \$4.6 billion
  - Represents 13.2% of US sales
  - \$3.9 billion in furniture stores
  - LA, SF and San Diego represent 61%
  - 20% sold in non-store retailers
  
- 60-70% of US furniture is imported
  - China, Vietnam, Brazil, Italy, Canada, Mexico, other Asian



# Outline

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- Background
- Understanding the Regulation
- ATCM Implementation
- AFHA Concerns
- Recent Outreach
- ATCM Timetable



# Background





# California Health & Safety Code Requirements

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- § 39657 - Requires ARB to identify toxic air contaminants; identify minimum threshold level if any
- § 39658 - Requires ARB to develop Airborne Toxics Control Measures (ATCMs)
- § 39666 - For compounds with no safe threshold level, the HSC requires the development of control measures based on **best available control technology**, or more effective controls in consideration of costs and risk

# California's Air Toxics Program

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## Identification

Potential Toxic  
Substance

ARB/OEHHA Publishes  
Draft Report

- Public Workshops
- Comment Periods

SRP Reviews Report

Public Hearing

## Risk Management

Evaluates Source  
Categories

Investigate Risk  
Reduction Options

- Public Workshops

Publish Staff  
Report/Proposal

- Public Workshops
- Comment Period

Public Hearing

# Formaldehyde as a Toxic Air Contaminant

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- Identified as a Toxic Air Contaminant in 1992
- No level of exposure considered “safe”  
Damages DNA
- Inhalation causes cancer in the region of the throat behind the nose
- Non-cancer effects

# United States Emission Standards

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- Set in 1985 by U.S. Dept. of Housing and Urban Development (HUD)
- Applies only to PB and HWPW in manufactured homes
- Limits surface emissions
- High emission rate compared to Europe, Australia, and Japan





# International Emission Standards

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- Lower than current U.S. standard
- Programs not directly comparable
- Generally not emission caps

# Understanding the Regulation



# ATCM Applicability

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- Panel Manufacturers
- Distributors
- Importers
- **Fabricators**
- Retailers



# Key Elements of the ATCM

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- Establishes new formaldehyde emission limits for HWPW, PB, and MDF panels, and requires their use in finished goods
- Panel manufacturers must demonstrate compliance through third party certification
- Fabricators must use compliant products in their finished goods for California



# Fabricator Requirements

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- §93120.7

- (a) Emission limits for HWPW, PB, and MDF
- (b) Exemptions
- (c) Additional Requirements
- (d) Product Labeling; Statement of Compliance
- (e) Facility Inspections

- §93120.12 -- Appendix 1 (d)

Sell-through provisions



# Phase 1 Emission Standards

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- **Hardwood Plywood**
  - Veneer Core: 0.08 ppm in January 2009
  - Composite Core: 0.08 ppm in July 2009
  
- **Particleboard**
  - All: 0.18 ppm in January 2009
  
- **Medium Density Fiberboard**
  - All: 0.21 ppm in January 2009



# Phase 2 Emission Standards

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## Hardwood Plywood

- Veneer Core: 0.05 ppm in January 2010
- Composite Core: 0.05 ppm in July 2012

## Particleboard

- All: 0.09 ppm in January 2011

## Medium Density Fiberboard

- Thickness  $\geq$  8-mm: 0.11 ppm in January 2011
- Thickness  $<$  8-mm: 0.13 ppm in January 2012



# Comparison of ATCM Standards\*

	<i>HUD Std. (ppm)</i>	<i>2003 CARB Survey (ppm)</i>	Phase 1 (ppm) Effective: 2009	Phase 2 (ppm) Effective: 2010-2012
Particleboard	<i>0.30</i>	<i>0.18</i>	0.18	0.09
Medium Density Fiberboard (>8mm)	<i>None</i>	<i>0.25</i>	0.21	0.11
- Thin MDF (<8mm)	<i>None</i>	--	0.21	0.13
Hardwood Plywood:				
- Veneer Core	<i>0.20</i>	<i>0.12</i>	0.08	0.05
- Composite Core	<i>None</i>	<i>0.08</i>	0.08	0.05

\* Based on ASTM E1333





# Exemptions

- (b)(1) Windows ... containing less than 5% by volume of HWPW, PB, or MDF combined...
- (b)(2) Exterior doors and garage doors made with waterproof resins for exterior use; or containing less than 3% by volume of HWPW, PB, or MDF combined

and...

- (b)(3) Local government agencies and school districts...



# Additional Requirements

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- (c) Fabricators must take **reasonable prudent precautions** to ensure that complying composite wood products are sourced for production of finished goods
- In addition, fabricators must keep records showing the date of purchase and the supplier... in electronic or hard copy form for a minimum of two years...



# Product Labeling

- (d)(1) “... The label shall be applied as a stamp, tag, sticker, or bar code on every finished good produced, or on every box containing finished goods. The label shall include at a minimum, the fabricator’s name and a marking to denote that the product was made with HWPW, PB, or MDF that complies with the applicable standards...”



# Statement of Compliance

- (d)(2) “Designate their goods as being made with HWPW, PB, or MDF that complies with the applicable standards...on the bill of lading or invoice provided to distributors, importers, other fabricators, or retailers.”



# Facility Inspections



(e) "... Fabricators are subject to periodic inspection by ARB... In the course of an inspection, ARB... may request to audit records or secure samples for testing..."



# Sell-through Provisions

- Appendix 1 (d)(1) ... Finished goods containing HWPW-VC, HWPW-CC, PB, MDF, or thin MDF produced before the Phase 1 and Phase 2 effective dates specified in section 93120.2(a) may be sold... for up to twelve months after each of the specified effective dates.

*e.g., Finished goods made with HWPW-VC that do not comply with the Phase 1 standard may be sold... by fabricators until December 31, 2009.*





# ATCM Implementation



# CARB Enforcement Program



- Field-screening

- FLEC Chamber/Interscan for panel testing

- Laboratory test method for finished goods

- Procedure for finished good deconstruction
- Protocol for preparing materials for testing

- Products from overseas

- Importer will ultimately be held responsible
- Subject to same testing as domestic goods





# Emissions Testing

- **CARB Small Chamber Facility**
  - Vast experience on formaldehyde analysis
  - Chamber construction materials procured
- **CA. Dept. of Public Health Large Chamber Study**
  - Preliminary trials using large chamber system
- **Round-robin Testing**
  - Planned for 1st Qtr. 2008



# AHFA Concerns



# AHFA Key Concerns

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- Sufficient global TPCs
- Are custom made furniture components “laminated products” or HWPW-CC?
- Enforcement of non-AHFA products
  - Level playing field



# Global Third Party Certification

**Forintek**

**WKI**

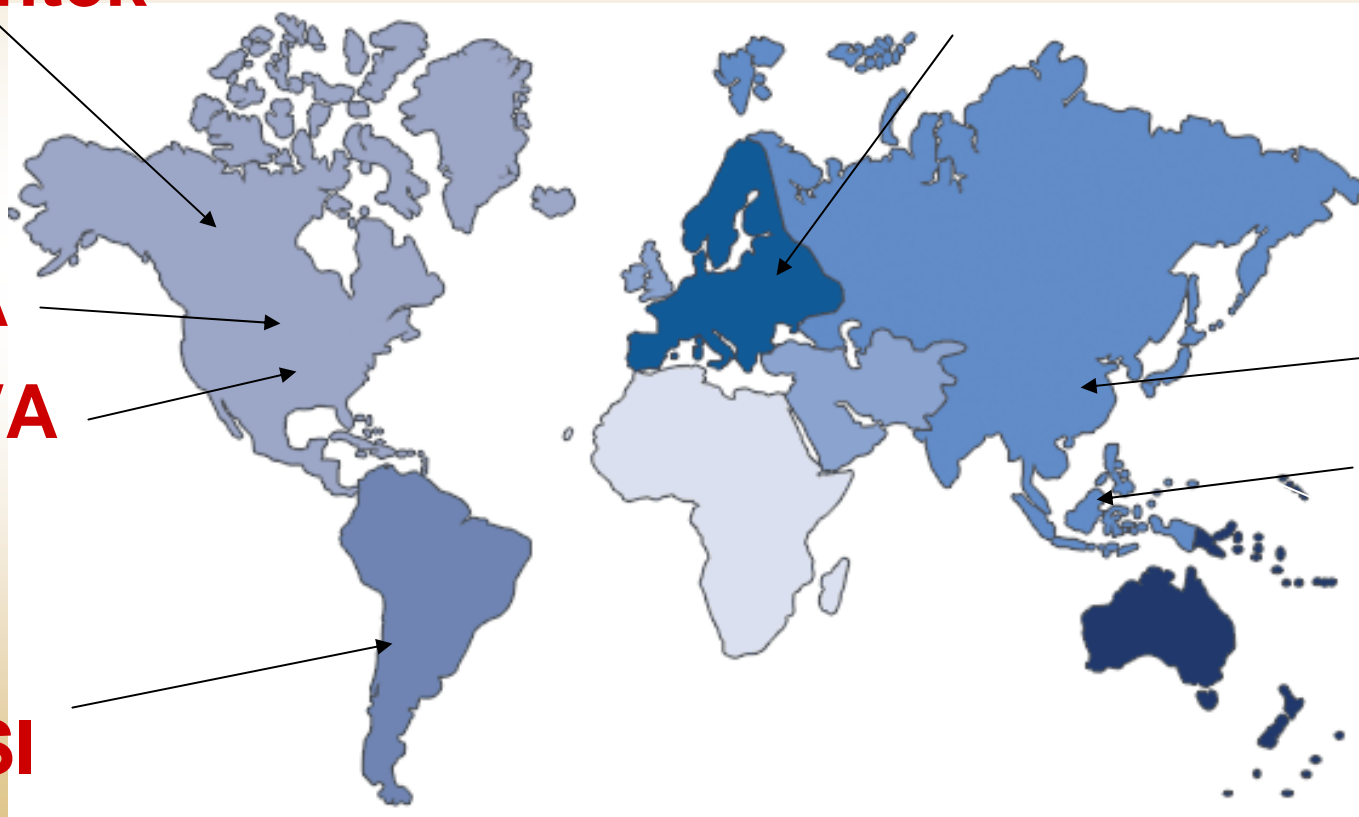
**CPA**

**HPVA**

**PSI**

**TECO**

**PSI**



# Third Party Certification (TPC)

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- International TPC services are essential
- TPC focused webinar held on Nov. 1, 2007
  - Presentations by CPA, TECO, PSI, PFS
- TPC application form under development;  
targeted for posting on CARB website Jan. 2008
- List of approved TPCs to be posted on CARB website



# Laminated Products

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- Finished grade furniture components  
“laminated products” not HWPW-CC
- ATCM revisions subject to public comment



# Recent Outreach



# 2007 AHFA Outreach



Date	CARB Activity
April 26, 2007	ATCM was approved
April 2007	AHFA "labeling field-trip" in April 2007
July 2007	CARB/AHFA webinar
Sept 2007	AHFA site-visit to discuss enforcement and visit CARB's product testing lab
Oct 2007	Conference call to discuss third party certification and plywood
Nov 2007	AFHA Environmental Summit





# CARB Outreach

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- Overseas trip to China and Malaysia
- Mass-mailing to cabinet makers
  - Retail furniture mailing underway
- RV industry
- Industry working groups
  - Third party certifiers
  - Ultra low emitting formaldehyde and no-added formaldehyde resin manufacturers
  - Finished product test method





# ATCM Timetable

# ATCM Implementation Timetable

Timeline	CARB Activity
<p>November-December 2007</p> 	<p>Release modified regulation to public</p> <p>Complete ATCM rulemaking</p> <p>Finalize TPC, ULEF and NAF Application Forms</p> <p>Complete construction of CARB small chamber</p>
<p>January-March 2008</p> 	<p>Begin accepting TPC applications</p> <p>ATCM becomes California law</p> <p>Establish small-to-large chamber correlation</p> <p>Complete enforcement testing protocol</p>



# For More Information

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Visit our website:

<http://www.arb.ca.gov/toxics/compwood/compwood.htm>

## Contact Information:

Jim Aguila, Manager- Substance Evaluation Section

Email: [jaguila@arb.ca.gov](mailto:jaguila@arb.ca.gov)

Phone: 916.322.8283

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