# Update on California's Composite Wood Products Regulation

Hardwood Plywood and Veneer Association
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Air Resources Board

# Presentation Overview

- ATCM overview
- Update on ATCM implementation
- Implementation issues
- Questions



# Airborne Toxic Control Measure (ATCM) Overview

- CARB developed ATCM to reduce public exposure to airborne formaldehyde
- ATCM establishes formaldehyde emission standards for hardwood plywood (HWPW), particleboard (PB), and medium density fiberboard (MDF)
- Phase 1 emission standards effective Jan. 1, 2009
  - HWPW-CC standard effective July 1, 2009
- Applies to products sold, supplied, used, or manufactured for sale in California
- Includes sell-through (grace) periods for non-complying products

# Requirements for Manufacturers, Flooring Fabricators, and Distributors

- Requires panel manufacturers to be third party certified and perform in-plant quality control testing
- Requires fabricators of finished goods such as flooring to use compliant HWPW, PB, and MDF
- Requires labeling, recordkeeping, and “reasonable prudent precautions”
- Requires statement of compliance on documentation

# Update on ATCM Implementation

- Third party certification program
- Supply of certified products
- Enforcement update

# Third Party Certification Program

Third party certifiers (TPCs):

- Verify CARB compliance at manufacturing mill
- Verify manufacturer's ability to provide consistent quality
- Help establish chain of custody at manufacturing level by allowing the use of their TPC number

# TPC Update (continued)

- All TPCs currently fulfilling their roles worldwide
- ATCM has established first ever worldwide composite wood product independent certification infrastructure
- 25 CARB-approved TPCs
- 11 applications under review (http://www.arb.ca.gov/toxics/compwood/certifiers.htm)

# ARB Administration of TPC Program

- **Goals**
  - Ensure effective TPC programs
  - Maintain consistency among TPCs
  - Provide guidance on ATCM requirements
- **Plan**
  - Establish communication
    - -> Individual TPCs
    - -> TPC bulletins
  - Monitor TPCs
    - -> Individual assessment calls
    - -> Inter-laboratory comparison testing
    - -> CARB staff evaluation
    - -> CARB's regional calls with TPCs
  - Findings from individual assessments and regional calls

# TPC Administration Schedule

| | |
|---|---|
| • Individual TPC calls | March - May 2009 |
| • TPC regional calls | May 2009 |
| • CARB/TPC inter-laboratory testing comparison | May - June 2009 |
| • TPC bulletin | May 2009 |

# Status of Mill Certifications

- Certified U.S. mills (94 mills total)
  - 30 PB mills
  - 20 MDF mills
  - 44 HWPW mills

- Certified foreign mills (478 mills total)
  - 222 certified mills in China
  - 79 certified mills in Southeast Asia
  - 141 certified mills in Europe
  - 36 other (Mexico, S. America, Canada, Australia, NZ)

- CARB website featuring certified mills:

http://www.arb.ca.gov/toxics/compwood/tpc/listofmills.htm

# Supply of Certified Products

- Staff has monitored supply of CARB certified composite wood products since August 2008
  - latest estimate as of April 2009

- Estimates based on data from TPCs, Wood Based Panels International, and website information

# Supply Status

- Current supply of composite wood products is sufficient for California demand
- May reach supply level for U.S. furniture demand later this year
- Based on current estimates, about 35% of HWPW mills in U.S. are already Phase 2 compliant

# NAF/ULEF Program Status

- ATCM allows TPC exemption for manufacturers using no-added formaldehyde (NAF) and some ultra low emitting formaldehyde (ULEF) resin systems
- Requires application; approvals case-by-case
  - CARB Executive Order; 2-year approval
- 17 CARB approved (15 NAF; 2 ULEF)
  http://www.arb.ca.gov/toxics/compwood/naf_ulef/listofnaf_ulef.htm
  - 4 applications under review

# Enforcement Update

- Field inspections
- CARB emission testing
- Investigations and case settlement

# Enforcement
## *Field Inspections*

- Inspect products for compliance with labeling requirements
- Check chain of custody documentation
- Field screening of product emissions
- Purchase products/samples at retail, commercial, and internet outlets
- Products/samples sent to laboratory for testing

# Enforcement
## *ARB Emission Testing*

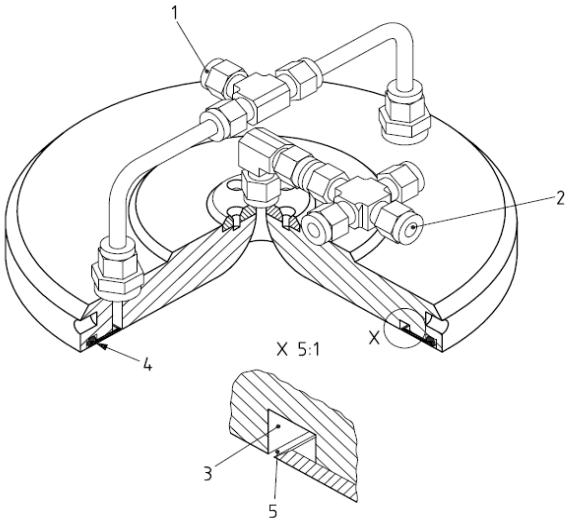
- Field screening method
  - FLEC and portable formaldehyde analyzer
- CARB enforcement based on secondary test method
  - Small chamber (ASTM D 6007) deemed equivalent to primary test method (large chamber, ASTM E 1333)

# Field Screening Method

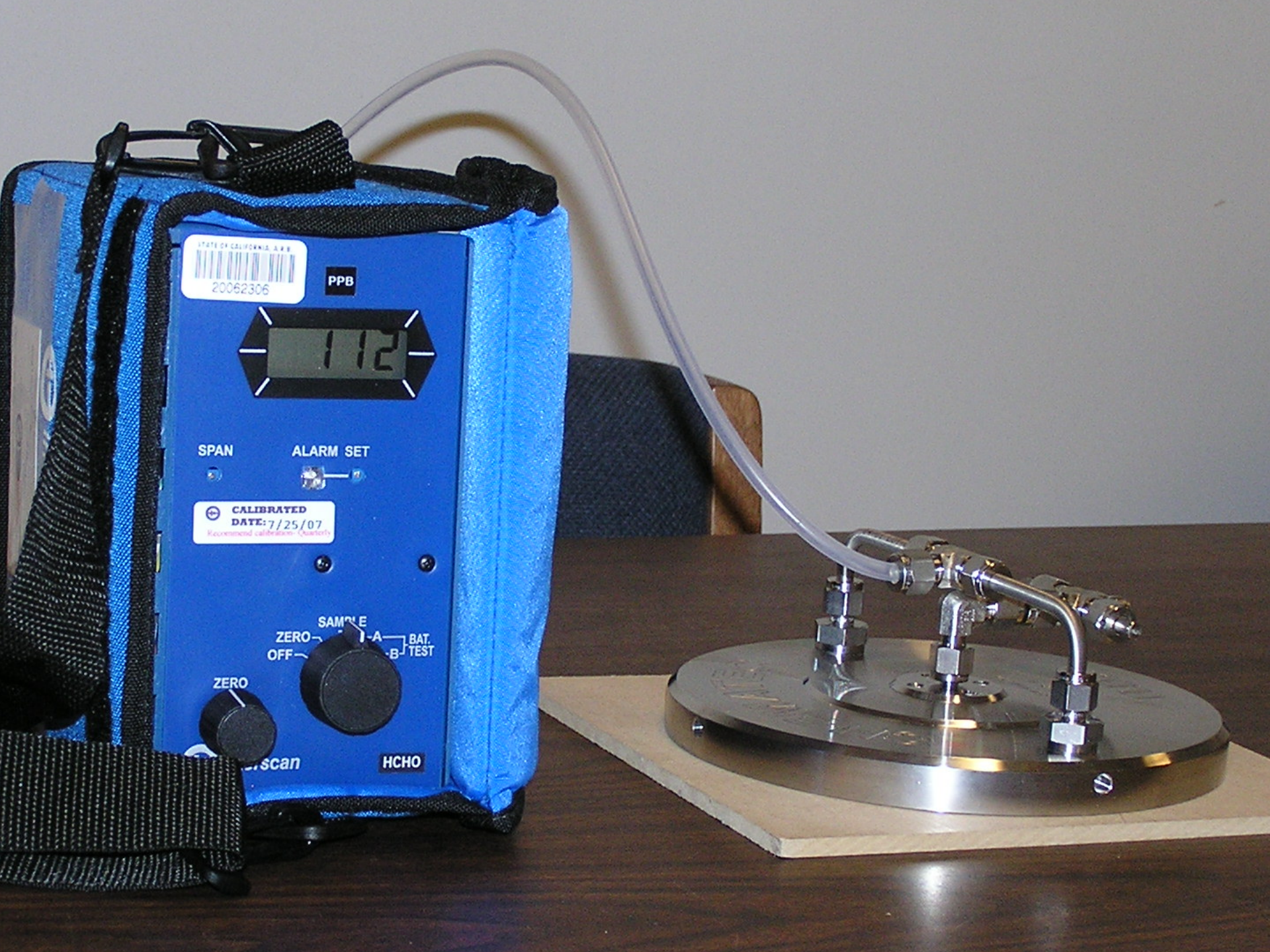
FLEC (Field and Laboratory Emissions Cell)

- Markes, International - model 4160-500b
- FLEC volume = 3.50E-05 $m^3$
- Sample surface area is 1.77E-02 $m^2$

Interscan portable formaldehyde analyzer, 0-500 ppb







PPB
112
SPAN
ALARM SET
CALIBRATED
DATE: 7/25/07
ZERO
OFF
A
B
BAT. TEST
ZERO
HCHO

# Enforcement Test Method

- CARB has 6 small chambers
  - 20 L volume
  - Dinitrophenyl hydrazine (DNPH) with High Performance Liquid Chromatography (HPLC) analysis
- Chambers passed equivalence testing for secondary test method after comparison testing with California Dept. of Public Health (DPH) large chamber

# Enforcement
*Testing of Panels*

- Method for testing formaldehyde emissions from panels is established
- Same method allows testing of panels or finished goods that are laminated on one side

# Enforcement
## *Testing of Finished Goods*

- CARB working with industry representatives to develop approach to test finished goods
- CARB and DPH conducting emission studies on various products
- CARB will share progress on testing approach with interested stakeholders

# Finished Goods Test Method (FGTM)

- Purpose – to determine if a composite wood substrate in a finished good complies with emissions limits
- Finished good sample preparation protocol:
  - Sample handling
  - Sample deconstruction
- Chamber test method
  - CARB small chamber
  - Method will incorporate test method variability

# FGTM

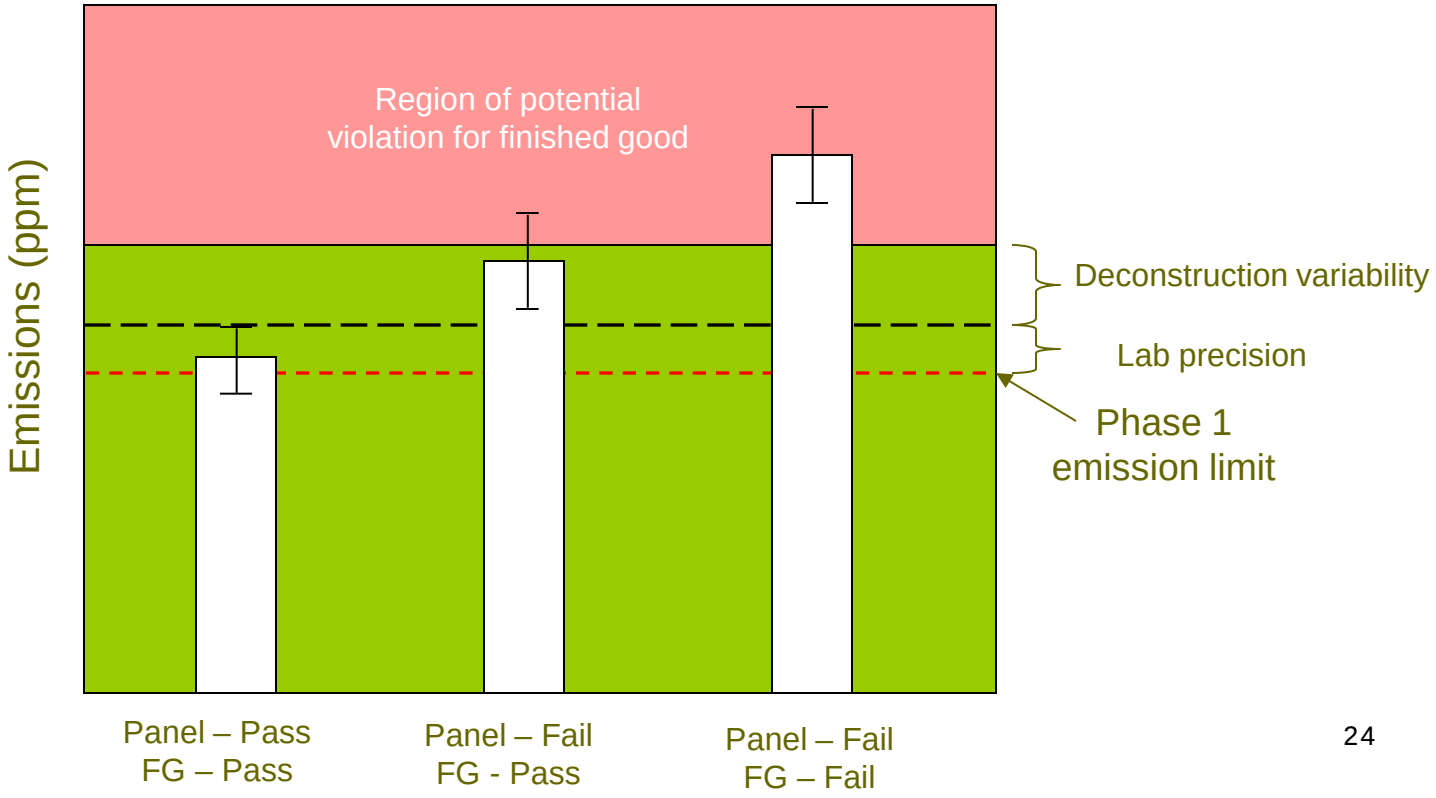
## *Deconstruction Variability Parameters*

- Panel type
  - HWPW, MDF, PB
- Laminate/covering type:
  - Wood veneer, synthetic, coatings
- Deconstruction method
  - Sanding vs. planing
- Surface layer removal
- Sample conditioning

# Test Method for Panels & Finished Goods
## *Uncertainty*

Two sources of uncertainty:

- Variability of the chamber test method
- Variability due to deconstruction of finished goods (FG)



# Enforcement
## *Investigations and Case Settlement*

- Evaluate information regarding non-complying products
- Determine responsible party
- Issue Notice of Violation
- Liability and case settlement

# Implementation Issues

- Laminated products vs. hardwood plywood-composite core panels
- Sell-through periods

# Laminated Products

- Finished good or component part of finished good, made by fabricator with laminate affixed to platform
- ATCM allows fabricators to make laminated products without needing to comply with manufacturer requirements
- Synthetic laminates affixed to platform are laminated products
- Question arises regarding use and sale of laminated products when laminate is wood veneer

# Laminated Products vs. HWPW-Composite Core Panels

- Staff intends to re-evaluate laminated products issues in 2009-2010 timeframe
- Short-term response
  - Staff will provide clarifications via a Regulatory Advisory
- Long-term response
  - Undergo formal process with all interested stakeholders as part of any pre-regulatory work
  - Study needed to understand emission differences between laminated products and HWPW-composite core
  - After fact finding, determination will be made as to proper course of action

# Sell-through Periods

- Downturn in the economy
- Concerns raised by several industry sectors
  - American Home Furnishings Alliance (AHFA)
  - California Retailers Association (CRA)
  - International Wood Products Association (IWPA)
  - California panel distributors
  - Western Home Furnishings Association (WHFA)
  - Moulding and Millwork Producers Association (MMPA)
  - Recreation Vehicle Industry Association (RVIA)
- Evaluating the current sell-through provisions and information brought to us by stakeholders
- Advisory regarding distributors and retailers of panels under review, with evaluation regarding finished goods to follow

# ATCM Implementation Focus for 2009

- Global supply monitoring
- Finished good test method development
- TPC program administration
- NAF/ULEF applications
- U.S. EPA proposed rulemaking
- Continuing outreach
- Intend to initiate rulemaking process late 2009 for amendments to ATCM

# For More Information

**Visit our website:**

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



**Or contact us:**

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