California’s Formaldehyde Regulation – Fabricator Requirements for Finished Goods

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Air Resources Board
Overview

- Implementation status
- Proposed regulatory amendments
- Status of U.S. EPA's regulation
- Fabricator requirements in ATCM
- Status of CARB enforcement
- Emissions testing of finished goods
- Questions
Implementation Status

- CARB began implementation of Composite Wood Products Airborne Toxic Control Measure (ATCM) in 2009
- Reduces formaldehyde emissions from particleboard (PB), hardwood plywood (HWPW), & medium density fiberboard (MDF)
- Phase 2 emission standards currently in effect
  - Range from 0.05 ppm for HWPW to 0.13 ppm for thin MDF
- Applies to products sold, supplied, used, imported for sale, or manufactured for sale in California
Implementation Status
continued

• Requires finished goods to be made from compliant HWPW, PB, and MDF panels
  − i.e., flooring, furniture, cabinets, etc.

• Industry sectors affected by ATCM include:
  − Panel manufacturers
  − Fabricators of finished goods
  − Distributors, importers, and retailers of panels & finished goods

• KCMA has been and continues to be a key industry stakeholder
• Third Party Certification (TPC) Program
  - Panel manufacturers must be third party certified by CARB-approved certifiers
  - TPCs provide two main services:
    ➢ Process verification & emissions testing
  - 40 CARB-approved TPCs worldwide (North America, Europe, & Asia)
  - About 900 certified mills
  - CARB website featuring certified mills:

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

Certified Mills Worldwide*

- China 57%
- Europe 15%
- Indonesia/Malaysia 13%
- North America 9%
- Vietnam/Thailand
- Other (Aust./NZ, S.Am, Rus., Japan) 6%

* as of April 2015
Implementation Status

continued

• NAF/ULEF Program

  - ATCM allows TPC exemption for manufacturers using no-added formaldehyde (NAF) or ultra-low-emitting formaldehyde (ULEF) resin systems

  - About 200 CARB-approved NAF and ULEF mills worldwide
Proposed Regulatory Amendments

Objectives

- Clarify requirements and applicability
- Align ATCM with proposed U.S. EPA regulations to extent practicable
  - Numerous discussions with U.S. EPA staff
- Explore ways to better ensure compliance of imported products
Proposed Amendments

continued

- Summary of proposed amendments
  - Panel manufacturers
    - Notify customers regarding non-complying panels
  - Third party certifiers of panel manufacturers
    - Clarify and tighten requirements
  - Distributors/retailers of panels
    - Labeling of partial bundles of panels
  - Fabricators
    - Additional requirements for laminated products
Proposed Amendments continued

• Laminated products – current ATCM approach
  – Applies to laminated products made by fabricators
    ➢ Laminates consisting of wood veneer or synthetic material
  – Requires use of certified platform material
  – Testing revealed opportunities to reduce emissions
Proposed Amendments

continued

• Proposal for laminated products
  – Establish new 0.13 ppm formaldehyde emission standard for unfinished laminated products
  – Standard would apply to laminated products consisting of unfinished wood veneer affixed to certified platform
  – Synthetic laminated products still need certified platform
  – No routine emissions testing or third party certification required
  – Benefit: achieves additional emission reductions beyond current ATCM by ensuring laminated products do not emit more than certified platform
Proposed Amendments

Next steps

• 5th public workshop on proposed amendments
  – Targeting June 2015 in Sacramento

• Present to CARB’s Board for consideration in late 2015 or early 2016
  – Timing dependent on when U.S. EPA regulations are finalized
Status of U.S. EPA’s Regulation

- U.S. EPA regulation based on CARB’s emission standards
- Comment period on draft regulation in 2013
- U.S. EPA’s goal is to finalize regulation by late 2015 or early 2016
- Regulation will become effective one year after published in Federal Register
Fabricator Requirements in ATCM

- Use certified composite wood material to make finished goods
- Obtain statement of compliance from suppliers
- Keep records
- Label finished goods or boxes
- Provide statement of compliance on invoice or bill of lading to customers
Fabricator Requirements

continued

• Suggested steps when importing components & composite wood material
  – Verify suppliers are providing certified composite wood material from panel manufacturers on ARB’s list of certified mills
  – Verify that certified panel manufacturers are selling material to your suppliers
Status of CARB Enforcement

- Inspections conducted at panel retailers, distributors, & retailers of finished goods
- Products inspected for compliance with labeling requirements
- Documentation reviewed regarding statement of compliance
- Samples collected for emissions testing
- Several enforcement investigations underway
Emissions Testing of Finished Goods

- Purpose is to determine if composite wood material in finished good complies with emission standards as part of enforcement.
- Finished good sample preparation/deconstruction standard operating procedures (SOP).
- Emissions testing using CARB’s small chamber test method (ASTM D6007).
Emissions Testing of Finished Goods
Sample preparation – sanding off laminate
Emissions Testing of Finished Goods

CARB’s small testing chamber
Emissions Testing of Finished Goods

continued

- Extensive testing conducted to develop sample preparation procedures
  - Procedures finalized in 2013
  - Posted to CARB’s composite wood products webpage
- CARB accounts for uncertainty caused by sample preparation when interpreting test results
Uncertainty factor accounts for variation in:

- Sample preparation/deconstruction of finished goods
- Chamber test method
Questions

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