

Discussion Session: U.S. EPA Proposed Formaldehyde Rules and ARB Existing ATCM



*August 1, 2013
Coastal Hearing Room
Cal/EPA Headquarters, Sacramento*

California Environmental Protection Agency



Air Resources Board

Agenda

1. Introductions
2. Objectives of Discussion Session
3. Background
4. ATCM & U.S. EPA general formaldehyde rule
 - ARB presentation
 - Stakeholder presentations
 - Open discussion
5. ATCM & U.S. EPA third party certification (TPC) rule
 - ARB presentation
 - Stakeholder presentations
 - Open discussion
6. Closing remarks
7. Adjourn
8. Optional TPC discussion with U.S. EPA staff



Objectives

- Discuss and compare U.S. EPA proposed rules and the ARB ATCM
 - ✓ share preliminary thoughts, ideas, questions, and suggestions for improvements
- Explore potential approaches for aligning/harmonizing the ATCM and U.S. EPA proposed rules to the extent feasible



Background

ARB ATCM

- 1992 – ARB identified formaldehyde as a toxic air contaminant
- 2007 – ARB approved Composite Wood Products ATCM
- 2009 – ATCM's Phase 1 emission standards took effect
- 2012 – ATCM's Phase 2 emission standards all in effect

U.S. EPA Proposed Rules

- 2010 – Formaldehyde Standards for Composite Wood Products Act (Title VI of TSCA) was signed into law by President Obama
- June 2013 – U.S. EPA released two proposed regulations in Federal Register for public comment period
- Comment period extended to August 26 for third party certification rule and September 9 for general formaldehyde rule
- U.S. EPA proposes that one year after adoption, rule will apply nationwide



ATCM & U.S. EPA General Formaldehyde Rule Discussion



Discussion Topics

1. Manufacturer requirements
2. Laminated products
3. NAF/ULEF approvals
4. Definitions
5. Labeling
6. Exemptions
7. Other



Manufacturer Requirements

Certification requirements

- ATCM: TPCs determine amount of testing to certify product
- U.S.EPA Proposal: requires minimum of one TPC qualifying test and three months of QC data for each product type to be certified
 - ✓ products under ARB certified TPC would be considered certified under TSCA for one year
- ARB Staff Preliminary Thoughts
 - ✓ one year is not sufficient for mills to obtain certification
 - ✓ ARB suggests that U.S. EPA defer to TPCs regarding minimum amount of QC testing



Manufacturer Requirements

Certification of HWPW-CC

- ATCM: HWPW with composite core (CC) must be certified; no requirement for core
- U.S.EPA Proposal: all types of HWPW must be certified to 0.05 ppm standard
 - ✓ no requirements for core, except that hardboard used as core for HWPW is not exempt [section 770.1 (c)(2)]
- ARB Staff Preliminary Thoughts
 - ✓ support regulating all types of HWPW
 - ✓ considering amending ATCM to require core for making HWPW be certified if contains composite wood product, consistent with requirement for laminated products; helps with enforcement; recommend that U.S. EPA include same
 - ✓ most mills use certified core material to meet 0.05 ppm HWPW standard



Manufacturer Requirements

QC testing for HWPW

- ATCM: requires additional QC testing if changes made in mill production (e.g., changes in resin formulation) for PB and MDF, but not HWPW
- U.S.EPA Proposal: same as ATCM, but also applies to HWPW
- ARB Staff Preliminary Thoughts
 - ✓ support U.S. EPA's proposal
 - ✓ considering amending ATCM to align



Manufacturer Requirements

QC – Grouping of product types

- ATCM: distinguishes product types by composition, thickness, resin, and number of plies for HWPW; allows grouping of product types with similar emission characteristics for certification and QC testing; addressed in implementation guidelines
- U.S. EPA Proposal: requests input on appropriate criteria for grouping of product types
- ARB Staff Preliminary Thoughts
 - ✓ suggest following ARB's guideline for grouping product types
 - PB and MDF - resin system and thickness
 - HWPW - resin used to affix face and back veneers, veneer species, thickness or number of plies, core type, adhesive used in core, and import vs. domestic core



Manufacturer Requirements

Retention of lots selected for testing

- ATCM: does not address retaining products until receipt of test results
- U.S.EPA Proposal: requires producer to retain lots from which samples are selected for QC tests and quarterly TPC tests, until producer receives test results
- ARB Staff Preliminary Thoughts
 - ✓ support concept of taking steps to avoid shipping of noncomplying lots
 - ✓ suggest only retaining lots tied to QC tests due to quicker test results; quarterly test results take longer (e.g., > 9 days)



Manufacturer Requirements

Reduced QC testing criteria

- ATCM: allows TPCs to reduce QC testing frequency for consistently performing PB and MDF panel producers from once per shift to once per 48 hours; no reduction allowed for HWPW
- U.S. EPA Proposal: allows similar reduction, but asks whether should allow indefinitely and whether reduced QC testing should be allowed for HWPW
- ARB Staff Preliminary Thoughts
 - ✓ indefinite approval acceptable as long as QC data demonstrates continued consistent results
 - ✓ acceptable to reduce frequency of QC testing for larger HWPW producers to minimum of one QC test per week



Manufacturer Requirements

QC – *Correlation criteria*

- ATCM: does not define acceptable correlation between QC method and TPC's methods; addressed in implementation guidelines
- U.S. EPA Proposal: identifies minimal correlation values from ARB's guidelines, but uses the term "equivalence" for QC methods
- ARB Staff Preliminary Thoughts
 - ✓ support including minimum correlation and linear regression
 - alternatively, handle through "best practices"
 - ✓ QC methods only need to be correlated to TPC's methods, not deemed equivalent



Manufacturer Requirements

Equivalence for secondary test methods

- ATCM: annual equivalence based on two ranges of five comparison tests
- U.S.EPA Proposal: annual equivalence testing with five comparison sets in a range of emissions representative of the products that a TPC certifies
- ARB Staff Preliminary Thoughts
 - ✓ suggest equivalence requirement be in TPC portion of regulation
 - ✓ decrease frequency from annually to every two years
 - ✓ considering amending ATCM to redefine equivalence ranges
 - ✓ allow equivalence testing in one range if TPC only certifies certain types of products (e.g., NAF products)



Manufacturer Requirements

Alternative QC test methods

- ATCM: allows for approval of alternative QC test methods if they can be shown to correlate to primary or secondary method; ARB has approved of five alternative methods
- U.S. EPA Proposal: includes additional methods approved by ARB and asks if this is appropriate
- ARB Staff Preliminary Thoughts
 - ✓ U.S. EPA rule needs process similar to ATCM to review and approve of additional alternative methods
 - ✓ need mutual recognition of additional approved QC methods



Laminated Products in the ATCM

- Applies to laminated products made by fabricators
 - ✓ laminate consists of wood veneer or synthetic material
- ATCM requires use of certified platform
- Conducted emissions testing of laminated products to determine if current regulatory approach is adequate
 - ✓ tested several products consisting of wood veneer affixed with UF resin to certified platform
 - ✓ findings suggested need for change in existing regulatory approach to reduce emissions
- Currently considering amendments to ATCM for laminated products
 - ✓ considering regulating glue used to affix veneers and synthetic laminates



Laminated Products in the U.S. EPA Proposed Rule

- Applies to laminated products made by manufacturers or fabricators
 - ✓ laminate consists of wood veneer
- U.S. EPA proposal requires use of certified platform, third party certification, and quality control (QC) testing
 - ✓ wood veneer attached to a certified platform using NAF resin would be exempt from third party certification
 - ✓ producers required to maintain records of NAF resin and certified platform purchases



ARB Staff Preliminary Thoughts re: Laminated Products

- Requiring TPC certification on all laminators and fabricators likely to result in significant cost increases
- Many laminators/fabricators are small to mid-size businesses
 - ✓ cost impact to replace equipment to be able to use NAF resin may be significant
 - ✓ unfamiliar with concepts of TPC and QC
- May not be sufficient TPC capacity to provide certification services
 - ✓ potentially thousands of affected fabricators worldwide



Potential Alternative Approach for Laminated Products

- Require low-formaldehyde-emitting resin use (i.e., those used in NAF/ULEF products, such as soy, PVA, MDI, PF, MF, or MUF) and require recordkeeping of resins used to affix veneers
- No testing or certification required unless producers choose to use UF resins
- Enforcement will evaluate intact products and deconstruct to test platform emissions, if needed



NAF/ULEF Approvals

- ATCM: requires ARB to evaluate and issue NAF/ULEF approvals
- U.S. EPA Proposal: panel producers must apply to TPCs for exemptions using a NAF/ULEF resin or for ULEF reduced testing option
- ARB Staff Preliminary Thoughts
 - ✓ recommend U.S. EPA staff to conduct reviews and issue approvals; recommend accepting ARB approval
 - potential for inconsistency with TPC reviews
 - potential conflict of interest
 - ✓ considering extending duration of renewal period for NAF exempt applications
 - ✓ considering reducing confidential information (e.g., resin formulation data) that TPCs are required to maintain



NAF/ULEF Approvals

continued

- ATCM: ARB issues amended approvals if prompted by producer's operational changes
- U.S. EPA Proposal: asks what should be required of producers if changes occur
- ARB Staff Preliminary Thoughts
 - ✓ changes that may affect emissions include: addition/replacement of resin system, addition of products, increase in resin application rate
 - ✓ recommend that U.S. EPA consider requiring the following if producer proposes change:
 - ULEF PB/MDF – 1 TPC verification test and 1 month of QC data
 - ULEF HWPW – 1 TPC verification test and 2 months of QC data
 - NAF PB/MDF/HWPW – 1 TPC verification test

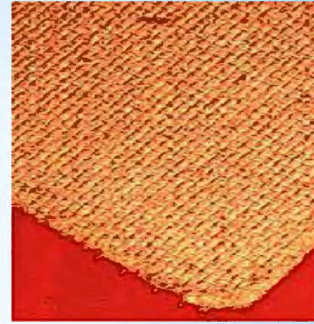


ULEF-Reduced Testing Option

- ATCM: allows an option for reduced testing for mills using ULEF-based resin systems
- U.S. EPA Proposal: asks about viability of option
- ARB Staff Preliminary Thoughts
 - ✓ recommend U.S. EPA consider eliminating reduced testing option
 - minimal additional requirements to meet ULEF-exempt status
 - few panel producers utilize this option



Definitions - Hardboard



- ATCM: exempts hardboard from regulatory requirements
- U.S. EPA Proposal: exempts hardboard; definition based on revised ANSI A135.4
- ARB Staff Preliminary Thoughts
 - ✓ considering amending ATCM to exempt hardboard defined as including only wet and wet/dry processed hardboard
 - ✓ suggest regulating dry processed hardboard as MDF, due to similar appearance and uses
 - ✓ wet processed hardboard is made with minimal amount of resin (if any) and has a different appearance



Definitions – Raised Panels

- ATCM: does not include raised panel in the definition of “panel”
- U.S. EPA Proposal: defines a panel as including raised panels
- ARB Staff Preliminary Thoughts
 - ✓ many raised panels (e.g., doors) made by cutting MDF panel and affixing it to a platform.
 - ✓ suggest raised panels be included in the definition of laminated products



Definitions – HWPW Core Types

- ATCM: emission standards for HWPW with veneer core and composite core
- U.S. EPA Proposal: includes all core types in the definition of HWPW
- ARB Staff Preliminary Thoughts
 - ✓ clarify if HWPW will include 2-ply HWPW in definition
 - ✓ suggest requiring core to be certified if contains composite wood product (excluding lumber core or special core products)



Definitions - Retailer

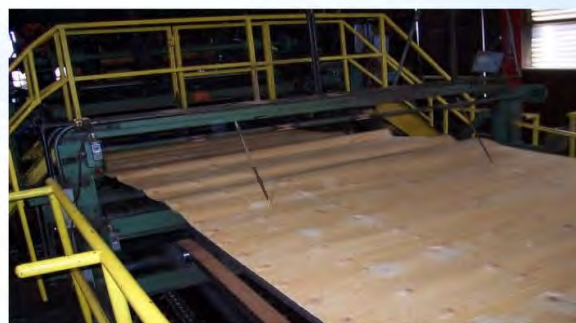
- ATCM: defines retailer as entity that sells directly to consumers
- U.S. EPA Proposal: defines retailer as entity that generally sells “smaller quantities” of composite wood products
- ARB Staff Preliminary Thoughts
 - ✓ recommend removing the word “smaller” -- too subjective and may imply regulation does not apply to retailers that sell larger quantities of products



Definitions - Veneer



- ATCM: definition solely includes wood-based materials (peeled or sliced)
- U.S. EPA Proposal: expands the definition to include woody grass (e.g., bamboo)
- ARB Staff Preliminary Thoughts
 - ✓ considering amending ATCM to include woody grass and compressed cellulosic material (e.g, cork) in the definition



Labeling

- ATCM: requires manufacturers to label their panels and fabricators to label either finished good(s) or box(es) containing finished good(s) (e.g., “CARB Phase 2 Compliant” or “93120 Compliant for Formaldehyde”)
- U.S. EPA Proposal: panels and finished goods be labeled to show compliance with the TSCA regulation
 - ✓ similar information to CARB label
 - ✓ required one year after TSCA regulation finalized
- ARB Staff Preliminary Thoughts
 - ✓ labeling requirement similar to ATCM
 - ✓ suggest U.S. EPA accept CARB label or TSCA label



Labeling

continued

- ATCM: requires each composite wood panel or bundle be labeled by manufacturers; ATCM does not address labeling partial bundles by distributors/retailers
- U.S. EPA Proposal: asks whether retailers should label each item/bundle when items separated or allow a signage in the retail display area or manufacturer/fabricator label every panel
- ARB Staff Preliminary Thoughts
 - ✓ suggest copy of the original label accompany partial bundles



Labeling

continued

- ATCM: allows the use of bar codes for labeling finished goods by fabricators
- U.S. EPA Proposal: asks whether bar codes should be permitted
- ARB Staff Preliminary Thoughts
 - ✓ recommend against the use of bar codes as sole form of label, as compliance is not clear for enforcement, retailers, or consumers



Exemptions

- ATCM: exempts oriented strand board (OSB)
- U.S. EPA Proposal: exempts OSB
- ARB Staff Preliminary Thoughts
 - ✓ considering amending ATCM to only exempt OSB labeled to ANSI standard to ensure products made with waterproof, low-emitting resins; suggest U.S. EPA do same
- ARB considering exempting additional products:
 - ✓ molded products
 - ✓ cellulosic fiber insulating boards (ASTM C208)
 - ✓ cross-laminated timber structural panels



Other – “De Minimis” Exemption

- ATCM: regulation applies to all finished goods, no minimum amount exempt
- U.S. EPA Proposal: has not proposed a “de minimis” exemption; approach consistent with ATCM
- ARB Staff Preliminary Thoughts
 - ✓ potential labeling and testing challenges for small finished goods
 - ✓ surprised U.S. EPA did not propose “de minimis” exemption
 - ✓ open to exploring options with stakeholders and U.S. EPA



Other – Manufactured Homes

- ATCM: does not apply to HWPW and PB sold/supplied for manufactured homes subject to U.S. HUD's rules
- U.S. EPA Proposal: covers MDF, which is not covered by the current U.S. HUD standards
 - ✓ asks about fabricator requirements and harmonization with U.S. HUD requirements
- ARB Staff Preliminary Thoughts
 - ✓ new manufactured homes should be labeled to indicate all MDF is TSCA compliant
 - ✓ support requiring U.S. HUD to modify their regulation to be consistent with TSCA regulation regarding HWPW and PB in manufactured homes



Other – Record Retention

- ATCM: requires two-year record retention period
- U.S. EPA Proposal: proposes a three-year record retention period
- ARB Staff Preliminary Thoughts
 - ✓ recommend U.S. EPA follow ATCM's two-year record retention period



Other - Stockpiling

- ATCM: clearance of older, noncompliant products via sell-through provisions
- U.S. EPA Proposal: prohibits inventory that was stockpiled; sets manufactured-by date one year after regulation finalized
 - ✓ asks if one year is reasonable
 - ✓ asks if the stockpiling prohibition should apply to businesses that were not in existence in 2009
- ARB Staff Preliminary Thoughts
 - ✓ agree with the proposed one year timeframe
 - ✓ recommend that stockpiling provision apply to all types of businesses (i.e., panel producers, distributors, fabricators, importers, and retailers)



**ATCM & U.S. EPA General
Formaldehyde Rule –
Stakeholder Presentations**



ATCM & U.S. EPA General Formaldehyde Rule – Open Discussion

1. Manufacturer requirements
2. Laminated products
3. NAF/ULEF approvals
4. Definitions
5. Labeling
6. Exemptions
7. Other



ATCM & U.S. EPA Third Party Certification (TPC) Rule Discussion



Discussion Topics

1. Approval of TPCs
2. Limitation on TPCs
3. TPC agent
4. Qualifications
5. Inter-laboratory comparison
6. Renewal period
7. TPC test methods
8. Enhanced testing
9. Disclosure of AB and TPC information



Approval of TPCs

- ATCM: requires ARB to approve TPCs
- U.S. EPA Proposal: use EPA-approved Accreditation Bodies (ABs) to approve TPCs
 - ✓ ARB-approved TPCs will have one year to be approved by AB
- ARB Staff Preliminary Thoughts
 - ✓ suggest U.S. EPA approve TPCs to promote consistency in approval process
 - ✓ considering amending ATCM to require ABs to audit TPCs



Limitation on TPCs

- ATCM: does not address potential TPC conflict of interest
- U.S. EPA Proposal: does not address conflict of interest
- ARB Staff Preliminary Thoughts
 - ✓ to avoid potential conflict of interest, considering amending ATCM to clarify that panel producers, importers, distributors, fabricators, and retailers cannot be TPC



TPC Agent

- ATCM: does not require international TPCs to have an agent in California
- U.S. EPA Proposal: requires TPCs based outside of U.S. to designate an agent in U.S.
- ARB Staff Preliminary Thoughts
 - ✓ have not had problem contacting TPCs and do not see need for agent



Qualifications

- ATCM: requires experience with verification of laboratories and wood products
- U.S. EPA Proposal: requires accreditation with ISO Guide 65 for product certification
 - ✓ U.S. EPA asks whether experience with one type of wood product is sufficient to certify all types
- ARB Staff Preliminary Thoughts
 - ✓ support accreditation to ISO 17065 (replaced Guide 65)
 - ✓ experience with one product type is sufficient to certify all products
 - TPCs certify compliance with emission standards and correlation of QC test methods, both independent of product type



Inter-laboratory Comparison (ILC)

- ATCM: requires TPCs to participate in ILC within first year of approval and then every two years
- U.S. EPA Proposal: requires annual ILC and asks about frequency, administering ILCs, criteria to judge acceptable performance, and costs of conducting ILCs
- ARB Staff Preliminary Thoughts
 - ✓ suggest ILCs every two years, with flexibility that U.S. EPA can require participation in annual ILC
 - ✓ suggest judging performance relative to other TPCs, in absence of reference material
 - ✓ suggest including minimum performance criteria
 - ✓ ARB will share cost data with U.S. EPA staff



Renewal Period for TPCs

- ATCM: requires TPCs re-apply for approval every two years
- U.S. EPA Proposal: asks whether renewals should be every two or three years and about frequency of TPC audits by ABs
- ARB Staff Preliminary Thoughts
 - ✓ suggest frequency of accreditation renewals and audits be on same schedule, every two or three years, whichever is consistent with accreditation requirements



TPC Test Methods

- ATCM: allows for use of primary method (large chamber) or secondary method (small chamber deemed equivalent to large chamber)
- U.S. EPA Proposal: TPC rule requires verification testing using primary method
 - ✓ general rule allows quarterly verification testing using primary or secondary method
- ARB Staff Preliminary Thoughts
 - ✓ TPC rule should allow either method for verification tests



Enhanced Testing

- ATCM: suggests TPCs conduct enhanced testing and inspections (e.g., monthly for a period of three months) after non-complying events
- U.S. EPA Proposal: asks whether enhanced testing or inspections should be required after failed quarterly tests or exceedance of quality control limits
- ARB Staff Preliminary Thoughts
 - ✓ suggest U.S. EPA require enhanced frequency for QC testing and inspections following either such occurrence



Disclosure of AB & TPC Information

- ATCM: does not require ARB to disclose information about TPCs; ARB maintains list of TPCs, certified panel producers, and NAF/ULEF producers on ARB's website
- U.S. EPA Proposal: post names of ABs, TPCs, annual reports from ABs and TPCs, and panel producers approved for reduced TPC oversight
 - ✓ U.S. EPA asks whether useful to post additional information about panel producers, some of which could be confidential
- ARB Staff Preliminary Thoughts
 - ✓ difficult to maintain current listing of less information than proposed by U.S. EPA; suggest limiting the released information to list of TPCs and certified producers



ATCM & U.S. EPA TPC Rule – Stakeholder Presentations



ATCM & U.S. EPA TPC Rule – Open Discussion

1. Approval of TPCs
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Closing Remarks



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Composite Wood Products ATCM Website:

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

