AHFA Regulatory Update

AHFA Manufacturing Summit
Franklin Furniture Institute
Mississippi State University
Unity – Access - Influence

‘If you are not at the table you are on the menu!’

-Andy Counts, CEO AHFA
CHART 2

More Costly Regulations in the Pipeline

The number of pending regulations expected to cost $100 million or more annually has doubled in five years.

## Annual Cost of Federal Regulations by Firm Size

<table>
<thead>
<tr>
<th>Type of Regulation</th>
<th>Cost per Employee for All Firms</th>
<th>Cost per Employee for Firms with:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Fewer than 20 Employees</td>
</tr>
<tr>
<td>All Federal Regulations</td>
<td>$8,086</td>
<td>$10,585</td>
</tr>
<tr>
<td>Economic</td>
<td>5,153</td>
<td>4,120</td>
</tr>
<tr>
<td>Environmental</td>
<td>1,523</td>
<td>4,101</td>
</tr>
<tr>
<td>Tax Compliance</td>
<td>800</td>
<td>1,584</td>
</tr>
<tr>
<td>Occupational Safety and Health and Homeland Security</td>
<td>610</td>
<td>781</td>
</tr>
</tbody>
</table>

Annual Cost of Federal Regulation 2012, $1.806 Trillion

- Economic regulation: $373 billion
- International trade: $7.8 billion
- Major rules, untabulated: $15 billion
- Tax compliance: $300 billion
- Health: $185 billion
- DHS: $55 billion
- DOL: $122 billion
- DOT: $64 billion
- Environment: $353 billion
- FCC: $142 billion
- Financial: $102 billion
- All other: $87 billion

A Limited Laundry List

- Formaldehyde
- Flammability
- CA Proposition 65
- EPA MACTS
- CPSIA
- Conflict Minerals
- CA Supply Chain Transparency Act
- Law Labels

- CA Safer Consumer Products Act
- CPSIA
- Product Safety Standards
- Lacey Act
- Wood Biomass
- Phthalates
- TSCA
‘Well, I never heard it before, but it sounds uncommon nonsense.’

- The Mock Turtle, Alice in Wonderland
Formaldehyde

**CARB**
- ‘de facto’ global standard
- Most stringent in the world
- Impacts both domestic and off-shore mfgs.
- Focus is on CWP
- Total Cost to Implement =
  - $4.7M Materials
  - $111M COC
- Current State
- Supply Chain Reorganized
- P2 Quality Problems

**EPA**
- Laminated Products Definition Changed
  - All furniture mfgs producers of HWPW-CC panels
  - Exponential product testing & certification cost
- Congressional Intent and Agency Overreach
- ‘Value Added Processes’
  - AHFA Studies
  - Effective Barrier
- NAF Exemption & Resins
Chain of Custody Example

Chain of Custody - 4 Entity Example w/ Multiple Panel Suppliers*

*Supply Chain Reality: Multiple suppliers for each TYPE of Composite Panel mixed in Production

Bill of Material - Composite Panel

<table>
<thead>
<tr>
<th>Medium Density Fiberboard Supplier 1</th>
<th>Medium Density Fiberboard Supplier 2</th>
<th>Particle Board Supplier 1</th>
<th>Particle Board Supplier 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top - 18mm MDF</td>
<td>Top - 18mm MDF</td>
<td>Sides - 18mm PB</td>
<td>Sides - 18mm PB</td>
</tr>
<tr>
<td>Drawer Front - 12 mm MDF</td>
<td>Drawer Front - 12 mm MDF</td>
<td>Frame - 12mm PB</td>
<td>Frame - 12mm PB</td>
</tr>
<tr>
<td>Back - 3mm mMDF</td>
<td>Back - 3mm mMDF</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Retailer → Distributor → Finished Goods Fabricator → Composite Panel Manufacturer

Legend:
CPM - Composite Panel Manufacturer
MDF - Medium Density Fiberboard
PB - Particle Board
mMDF - Thin Medium Density Fiberboard

5/6/2014 10 AHFA Manufacturing Summit
Composite Panel from Receipt to Retail

Bill of Material - Composite Panel

Top - 18mm MDF
Drawer Front - 12 mm MDF
Back - 3mm thin MDF
Sides - 18mm PB
Frame - 12mm PB

Received Material Multiple Source

Incoming Material

Part-Level Manufacturing Processes

Batch Assembly

Retail Market

Finished Goods Shipments - DC #1

Finished Goods Shipments - DC #2

Finished Goods Distribution Center #1

Finished Goods Distribution Center #2

AHFA Manufacturing Summitt
EPA Proposed Rule TSCA Title VI
Night Stand Panels Tracking

Some of the Challenges
We purchase most of our panels from a cut to size vendor. If they send panels from more than one lot for a cutting of the drawer fronts for example, are we going to be able to track them?
Can we track the over stock cores separate for the new cores?
How do we track shortages?
Will the tracking of finished components such as drawer sides be handled different from panels we press ourselves?
Will we track sheet stock differently than cut to size stock in the same facility?

Must be able to track individual panels back to the following information:
Panel manufacturer: lot #, date of manufacture, type CWP
Purchaser: name, contact person, address, phone #, PO#, amount purchased
Transporter: name, contact person, address, shipping invoice number, amount transported
EXCESSIVE TESTING COSTS

ONE STANDARD FURNITURE UNIT REQUIRING THREE
HARDWOOD-Plywood TYPES AND OFFERED IN THREE FINISHES

The EPA’s proposed rule would require daily batch testing for each hardwood-plywood type. Most units require multiple hardwood-plywood types and are offered in multiple finishes (or top veneers), causing testing costs to mount. Total testing cost for a typical piece of furniture, such as a nightstand, offered in a cherry, oak and pine veneer:

$5,400 per day.
### How Testing Costs Add Up

A **custom furniture** manufacturer might have an average of only 4 cuttings or production runs each day. If those cuttings average 3 types of hardwood-plywood per cutting, annual testing costs to meet the requirements of the EPA’s proposed rule stack up like this:

<table>
<thead>
<tr>
<th>Cost Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily certification test per hardwood-plywood type</td>
<td>$600</td>
</tr>
<tr>
<td>Quarterly certification test per hardwood-plywood type</td>
<td>$600</td>
</tr>
<tr>
<td>Total certification testing per day</td>
<td>$7,200</td>
</tr>
<tr>
<td>On-site quality personnel cost per year</td>
<td>$77,000</td>
</tr>
<tr>
<td>Total daily certification testing per year</td>
<td>$1,872,000</td>
</tr>
<tr>
<td>Total quarterly certification testing per year</td>
<td>$5,040,000</td>
</tr>
<tr>
<td><strong>TOTAL YEARLY COMPLIANCE COSTS:</strong></td>
<td>$6,995,000</td>
</tr>
</tbody>
</table>

This custom furniture manufacturer produces about 700 pieces per year at an average **manufacturing cost** of $1,250 per piece.  

The average annual testing cost under the EPA’s proposed rule would be **$9,993** per piece.  

Total annual compliance costs ($6.9 million) would **exceed** total annual payroll for this company ($5.5 million).

A **mass market furniture** manufacturer might have an average of 24 cuttings or production runs each day. If those cuttings average only 2 types of hardwood-plywood per cutting, annual testing costs to meet the requirements of the EPA’s proposed rule stack up like this:

<table>
<thead>
<tr>
<th>Cost Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily certification test per hardwood-plywood type</td>
<td>$600</td>
</tr>
<tr>
<td>Quarterly certification test per hardwood-plywood type</td>
<td>$600</td>
</tr>
<tr>
<td>Total certification testing per day</td>
<td>$28,800</td>
</tr>
<tr>
<td>On-site quality personnel cost per year</td>
<td>$77,000</td>
</tr>
<tr>
<td>Total daily certification testing per year</td>
<td>$7,488,000</td>
</tr>
<tr>
<td>Total quarterly certification testing per year</td>
<td>$12,000,000</td>
</tr>
<tr>
<td><strong>TOTAL YEARLY COMPLIANCE COSTS:</strong></td>
<td>$19,571,000</td>
</tr>
</tbody>
</table>

This mass market furniture manufacturer produces approximately 2,500 pieces per year at an average **manufacturing cost** of $182 per piece.  

The average annual testing cost under the EPA’s proposed rule would be **$7,828** per piece.  

Total annual compliance costs ($19.5 million) are roughly **equal** to total annual payroll for this company ($19.2 million).
Additional Observations

• The **annual cost** of this regulation to the manufacturers of the regulated product **reflects less then 7% of the annual regulatory cost to the Furniture Industry**.

• The costs incurred by the Furniture Industry to prove and defend compliance **do not necessarily represent an increased reduction in emissions or overall increase in health benefit to consumers**.

• Studies conducted by the California Air Resources Board, the Consumer Product Safety Commission, the Composite Panel Association and the Furniture Industry all demonstrate that the Furniture Industries’ natural **value added processes of laminating**, veneering and finishing component composite panels **reduces emissions by no less than 50%**, regardless of the initial emissions measurements of the raw wood panels.
‘And this mess is so big, and so deep and so tall, we cannot pick it up. There is no way at all!’
— Dr. Seuss, The Cat in the Hat
Proposition 65

California’s Safe Drinking Water and Toxic Enforcement Act of 1986

- Applies to **All PRODUCTS** offered for sale in CA
- Requires **manufacturers** to notify consumers of the ‘**presence of chemicals**’ in products and/or in the workplace
- Administered by CA OEHHA

OEHHA Selects Chemicals that are Added to the Prop65 List

- +800 Listed Chemicals
- Many found in commonly used products
- Naturally Occurring
- Listed if OEHHA determines the chemical ‘has been clearly shown to cause cancer, birth defect or other reproductive harm’
Proposition 65

‘Prior to Purchase Warning’

• Businesses must provide a ‘clear and reasonable’ warning before exposure
• Warning can be:
  – A label on the product, packing, store shelf, or signage
  – Regulation doesn’t specify where
  – Only that the consumer can likely read and understand it prior to purchase

The Warning Statement

WARNING

This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm
Proposition 65

- **Litigation Driven** – State Attorney General’s Office
  - Lawsuits may be filed by the Attorney General, district attorneys, consumer advocacy groups, private citizens and law firms
  - Peter Englander/The Chanler Group, John Moore, Laurence Vinocur, Center for Environmental Health, Russell Brimer: are professional plaintiffs who have filed hundreds of Prop65 Notices
    - Chemicals: formaldehyde, TDCPP, DEHP, lead, and lead compounds
    - Products: children’s products – cribs, faux leather, upholstered furniture, outdoor furniture, vinyl furniture
    - Fine - $2,500/day/violation
    - 104 60 Day Notices/22 Member Companies
  - Options???
    - Settlement structure + plaintiff legal fees/expenses
    - Average 2011 settlement = $65,000; Total +$17M
    - Challenge the allegation (costly/time-consuming)
Proposition 65

• Listing is Not a Prohibition
  – Must have *credible scientific evidence* that the chemical in use does not exceed the ‘safe harbor’ or NSRL
  – If NSRL is not exceeded, exposure is considered ‘insignificant’
  – TDCPP NSRL = 5.4 micrograms per day (μg/day)

• Label *is not required* if chemical of concern is below the NSRL
Proposition 65

• **TDCPP**, FR Chemistry and Foam
  – Listed by OEHHA in October 2011; prior to purchase warnings required beginning October 2012
    • 12 month sell through period for legacy inventory and floor samples
    • Not *prospective* in nature
    • Test data required/obtained to file the 60 Day Notice
  – Challenges
    • Controlling the retail environment (floor samples, legacy inventory)
    • ‘Close Out’ specialist and Discount Merchants
    • Labeling the finished product (law label ‘billboard’)
    • Internet Sales/Purchases
Chemicals of Concern

- Aniline - cancer
- Benzene - cancer
- Cadmium - reproductive
- Colors?? – pigments for stains & leather
- Chromium/hexavalent compounds - cancer & reproductive
- Ethyl Acrylate - cancer
- Ethylene Glycol Monoethyl Ether - reproductive
- Phthalates
  - DEHP - cancer/reproductive
- Formaldehyde - cancer
- Lead & Lead Compounds - reproductive & cancer
- Methanol - reproductive
- MIBK - cancer
- Naphthalene - cancer
- Nickel Compounds - cancer
- Toluene - reproductive
- Chlorinated Tris - cancer
  - TDCPP
- Urethane - cancer
- Ethylene Glycol - reproductive toxicity
‘FLAME ON!’

-Johnny Storm, the Fantastic Four
Flammability

- CA Bureau of Home Furnishings (BHFTI)
  - TB 117 2013
    - AHFA Comments
    - Test Method
      - No small open flame test method
      - Post-test char length/45 sec test
      - No modification to foam thickness or chemical/physical properties
    - BHFTI Round Robin
      - Filling Material Test (Table 3) pass/fail results
  - Key Dates
  - FR Chemistry

- The Green Science Policy Institute
  - Labeling of ‘non-FR’ Upholstered Products
Flammability

• Consumer Product Safety Commission (CPSC)
  – AHFA Comments
  – CPSC Barrier Workshop
  – ASTM Effort
  – Current State
  – New Commissioners & Staff
    • Marietta Robinson, Ann Marie Buerkle, Rik Khanna
    • Joseph Mohorovic (Intertek)
  – CPSC UL Meeting
    • Review of UL study on upholstered furniture flammability
Flammability

• ASTM
  – E05 15 Subcommittee
  – CPSC Proposal
    • Modification of the test method
    • Foam thickness = 3 inches; foam physical/chemical properties
    • 45 sec test/mass weight loss vs. char length (117)
  – Round Robin Needed
  – Removal of 1353 from Standards Inventory
Flammability

• Proposed Changes to TB-117
  – Appropriately addresses smolder ignition, the leading cause of upholstered furniture fires.
  – Balances the burden of risk between cover fabrics and filling materials with no bias against any individual component.
  – Does not prohibit the use of FR chemicals or other components but allows flexibility based on consumer preferences and available technology.
Flammability

• Mandates a proven and effective approach to smolder ignition (ASTM/UFAC) thereby increasing the level of compliance.

• Allows for the continued evaluation of small open flame risk.

• Provides a ‘drop in solution’ with minimal economic effect.

• Allows the use of protective barriers with fabrics that fail.
**Challenges with the Proposed Revision**

- Several added modifications to the established ASTM method:
  - Changes the *historical* precision and bias statement
  - Alters the established ‘referee method’
  - Will require a substantial interlaboratory study to reset the precision and bias statement
- The need for a COM exemption.
- The need to establish a regulatory ‘fence’ around qualifying alternate cigarettes
Current Activity & Approach

• Legislative & Regulatory
  – Bicameral letter asking CPSC to adopt final draft of TB-117 once approved
  – Senator Hagan (D-NC) as primary sponsor with Senators Klobuchar, Durbin, Boxer and Congresswoman Matsui
    – Working on TSCA reform
    – Working with EPA DfE Program

• State Initiatives: NY
Current Activity & Approach

• Industry Comments to the BHFTI
  – Broad Stakeholder Participation and Support
  – Small Open Flame/Barrier Study
  – BHFTI Plant Tours

• Green Science Policy Institute and Grate Lakes PBDE Reduction Project

• CPSC
  – Meeting with Commissioner Adler
  – Upholstered Furniture Fire Safety Technology Meeting
  – Adler & NIST Plant Tours
Small Open-Flame Barriers – Upholstered Furniture

• Fiber batting barriers designed for mattresses cannot be used
  – Most widely used mattress batting is based on rayon fiber blends
  – Rayon does not crimp like polyester – inappropriate for furniture
• Fabric inner-liners are too costly
  – Material costs are high and would affect salability of finished products
  – Existing inner-liner fabrics require cut-and-sew fabrication, adding extra labor cost (offshore resourcing – loss of US jobs)
• Cotton batting requires heavy FR treatment
• May not be appropriate to the risk of furniture ignition
  – Today’s furniture designs may provide reduced fuel load
  – UL corner tests are not representative of actual furniture or usable barrier technologies
Questions

‘Finally, from so little sleeping and so much reading, his brain dried up and he went completely out of his mind.’
— Don Quixote