

AATCC Meeting 1/23/17

Chemicals Management in the Apparel Industry: The Brand/ Retail Perspective

6:15 PM start at Levi's Headquarters

- Ellen presenting Nathaniel Sponsler
 - Product Chemical Specialist/Attorney
 - 9 years' experience overseeing chemical industry for GAP Inc.
 - Director of apparel of RSL management
 - Affirm Group
 - ZDHC
- Nathaniel Sponsler presentation
 - Chemicals? Why do they matter?
 - Environmental
 - Pollution/Water Savings
 - New technologies/ chemicals to save water
 - Dry dying
 - Worker Well Being
 - Example of women using solvent based glues in a factory to bind soles on shoes
 - Regulatory Risk
 - There has been a 4000 % increase in regulations
 - Product Quality
 - Test reports indicate what chemicals are being used in products
 - Chemical Pollution
 - Macro
 - Color, visible impact
 - Solution: treat waste water and control your processes
 - Micro
 - Affects daily production, less visible
 - Highly regulated PFC's/ APEO's/heavy metals
 - Solution: control the inputs
 - History of Chemical Management from 2000's and on
 - 2000's: First RSL surfacing
 - Chemicals were largely unregulated globally before
 - RSL's were mostly aspirational
 - Helped educate/transition out of chemicals
 - 2004: Affirm Group established
 - The goal was the adoption of RSL's across the industry
 - A common RSL could be difficult and lead to brand politics/disagreements
 - 2006: REACH Passed in Europe
 - Registration, Evaluation, and Authorization of chemicals
 - No Data, No Market

- Substances of very high concern were regulated in imported goods
- Legal obligations started to request you to tell customers about high concern substances
- 2008: There was a dramatic spike in regulation
 - Washington State started their reporting Law
 - California started laws
 - 66 plus chemicals in your products
 - Must be reported
 - Mainly children's products
 - "Retailer as regulator" model starts
 - Costs of compliance and access to market concerns
 - European Union/United States/Asia/US counties and cities
 - Started activity at the local level
 - Example: NGO pressure in NYC
 - TSCA reform last year
- 2010: RSL's proliferate
 - 250+ product RSL's in apparel and footwear industries
 - Different chemical restrictions, limits, methods, formats
 - Establishment of 12,000 pages of chemical restrictions
 - Created a challenge for supply chain
 - How do you manage this?
 - Is this a proper way to manage industry?
 - Are we focusing on the right issues?
 - Example of production region occupants being exposed to more chemicals in one day VS the US American Lifetime
- 2011: Greenpeace "Detox" Campaign
 - Aggressive, but effective
 - ADHC formed
 - Affirm Policy Committee Launched
 - Regulation that makes sense
 - Engaging with regulators
 - Making sense of things
 - Not about opposition
- 2014: ZDHC publishes MRSL
 - Groundbreaking effort to publish aligned industry standard
 - Manufacturing Restricted Substances List
 - Targeted inputs
- 2015: Affirm publishes common product RSL
 - 11 years later
 - Game changer
 - Mature/Self-governing
 - Half of the Affirm Group adopted

- 2016: ZDHC Water Quality Standard Published
 - Possibility of coordinated water testing approved
 - Published November/December last year
 - Should ZDHC manage on behalf of the brands?
 - Looking to the future
 - Is there a better way to align?
 - Maturing the industry
 - Start of Interek Presentation by Pankaj Sarda
 - Director of Global Soft lines
 - Chemical Management in Retail Industry
 - Regulatory Climate in the US
 - US Market
 - Prop 65 (900 chemicals)
 - CPSIA (lead/metallic)
 - New TSCA published 10 priority chemicals
 - Chemical Reporting Laws in Children's Products
 - Washington, Vermont, Oregon, Maine
 - Outside the US
 - Canada (CCPSA/ CEPA)
 - EU Research
 - Greenpeace International Acts to change attitudes and behaviors to protect/conservate environment and promote peace
 - Detox campaign started the ZDHC in 2011
 - Wastewater guidelines
 - Goal=zero discharge of hazardous chemicals by 2020.
 - Chart of commonly used chemical groups in the textile industry
 - Hazardous Substances Recall Example
 - Example of American Airlines Uniforms. Caused headaches, rashes, respiratory problems
 - Interek was contracted to find what chemicals were used
 - Challenges in the Industry
 - Too many chemicals
 - No control, purchasing from local, non-verified suppliers
 - Limited knowledge and resources
 - Hard to manage data of the chemicals and hazardous substances
 - MSDS doesn't include chemicals content present in <1 %
 - In the next 2-3 years, what markets do you want to expand to?
 - Determines if there are stricter chemical regulations.
 - How much leverage do you have on your suppliers?
 - Sourcing at the factory level?
 - Trims/inks/labels from non-nominated suppliers
 - Different Management Strategies
 - Passive
 - Product complies with market

- Active
 - Internally managing supply of chemicals and disposal
- Where to begin?
 - Products
 - Supply Chain
 - Lifecycle management
 - Green chemistry/sustainable chemistry
- Different Approaches
 - Risk based approach (wider scope)
 - List of high risk material types, finishes
 - Identify high risk suppliers
 - Target Approach
 - Very selected popular product styles
 - Source certified raw materials, inks, trims
 - Verify All
 - Small orders
- Process
 - Identify and Prioritize Hazardous Substances
 - Product type and age category
 - Consider new markets in 2-3 years
 - Brand/Licensee RSL requirements
 - Members of organizations/groups
 - Communicate internally to departments
 - Define roles/responsibilities
 - Hard or soft roll out of process?
 - 1-2 season lead times before implementation
 - Training is very important to supplier base
 - Verification/Testing/Data Collection
 - Testing at production stage
 - Monitoring and continuous improvement
 - Keeping your list up to date
 - Adding/Removing chemicals
- Example of Detox Sampling at the mill level
 - Incoming water stream
 - Before and after treatment
- Audits available
 - Different types
 - Management practices/ health and safety/store and handling/waste and disposal/chemical impact reduction
 - Examples:
 - Nike, Dystar, H&M
- Q&A Session
 - What resources do you use for environmental chemical toxicity research? Local recommendations?

- Organic chemistry online, sixclasses.org, MSDS list from suppliers, AATCC online courses
- ZDHC list?
 - Bluesign has its own list, no direct correlation, but many of the same brands worked on the same list.
 - Brands started congregating, more collaboration
 - Bluesign focuses on product and anything at factory (raw materials)
 - More textile and raw material focused
 - ZDHC working on chemical gateway that suppliers can easily reference
- GOTS?
 - Use of safer pesticides
 - Specific to certain raw materials
 - Behind the scenes organization between these groups by ZDHC
- How can water quality testing use a shared standard?
 - One agent to conduct the testing
 - More of this at the material level
 - We will see more of this in the next few years
 - Seeing new generations, more collaborations that benefit everyone
- Enforcement/monitory in certain states?
 - Only state program is in Washington. Their Reporting Law sends letters to the brands
 - Vermont just accepted their 1st round of testing by SKU level
 - Oregon Law hasn't gone into effect yet
 - Will be the most stringent
- California Green Initiative?
 - Passed in 2008, very slow moving
 - NPE's and tri-clisans used in garments
 - High interest in these
 - Find a safer alternative for high risk chemicals
 - Ambitious legislation
 - Where is the funding going?
 - Research and grants, a new era
- Pro-Health or Pro-Environment?
 - Depends on your products or chemicals.
 - Outdoor Products (NGO's)
 - One in the same, whether exposed by product or drinking the wastewater
 - The bigger issue is waste water overseas
- Verification testing?
 - Are labs doing anything?
 - Verification is done at different levels.
- Direct/Indirect discharge of waste waters?
 - Different standards in different countries

- ZDHC water treatment guide
 - Different brands going into same facilities but with different water standards
 - Aligning methods across the industry?
 - Adopting
 - Technical advisory committee every year discusses the best methods.
- 7:35 PM End of Meeting