Ellen presenting Nathaniel Sponsler
  o Product Chemical Specialist/Attorney
  o 9 years’ experience overseeing chemical industry for GAP Inc.
  o Director of apparel of RSL management
  o Affirm Group
  o ZDHC
  
Nathaniel Sponsler presentation
  o Chemicals? Why do they matter?
    ▪ Environmental
      • Pollution/Water Savings
      • New technologies/ chemicals to save water
        o 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
        o Color, visible impact
        o Solution: treat waste water and control your processes
      • Micro
        o Affects daily production, less visible
        o Highly regulated PFC’s/ APEO’s/heavy metals
        o 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
      o 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
  o Must be reported
  o Mainly children’s products
• “Retailer as regulator” model starts
• Costs of compliance and access to market concerns
  o European Union/United States/Asia/US counties and cities
  o Started activity at the local level
  ▪ Example: NGO pressure in NYC
• TASCA 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
  o How do you manage this?
  o Is this a proper way to manage industry?
  o 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
• Afirm Policy Committee Launched
  o Regulation that makes sense
  o 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
  o Targeted inputs

2015: Afirm publishes common product RSL
• 11 years later
• Game changer
• Mature/Self-governing
• Half of the Afirm Group adopted
• 2016: ZDHC Water Quality Standard Published
  o Possibility of coordinated water testing approved
  o Published November/December last year
  o Should ZHDC manage on behalf of the brands?
• Looking to the future
  o Is there a better way to align?
  o 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
    o US Market
    o Prop 65 (900 chemicals)
    o CPSIA (lead/metallc)
    o New TSCA published 10 priority chemicals
    o Chemical Reporting Laws in Children’s Products
      ▪ Washington, Vermont, Oregon, Maine
  • Outside the US
    o Canada (CCPSA/ CEPA)
    o EU Research
  ▪ Greenpeace International Acts to change attitudes and behaviors to protect/conserve 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?
    o Determines if there are stricter chemical regulations.
    o How much leverage do you have on your suppliers?
    o Sourcing at the factory level?
      ▪ Trims/inks/labels from non-nominated suppliers
• Different Management Strategies
  • Passive
    o Product complies with market
• Active
  o Internally managing supply of chemicals and disposal

• Where to begin?
  o Products
  o Supply Chain
  o Lifecycle management
    ▪ Green chemistry/sustainable chemistry

• Different Approaches
  o Risk based approach (wider scope)
    ▪ List of high risk material types, finishes
    ▪ Identify high risk suppliers
  o Target Approach
    ▪ Very selected popular product styles
  o Source certified raw materials, inks, trims
  o Verify All
    ▪ Small orders

★ Process
• Identify and Prioritize Hazardous Substances
  o Product type and age category
  o Consider new markets in 2-3 years
  o Brand/Licensee RSL requirements
  o Members of organizations/groups
• Communicate internally to departments
  o Define roles/responsibilities
  o Hard or soft roll out of process?
  o 1-2 season lead times before implementation
  o Training is very important to supplier base
• Verification/Testing/Data Collection
  o Testing at production stage
• Monitoring and continuous improvement
  o 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:
    o 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/monitoring 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.
  o 7:35 PM End of Meeting