

## AHFA Leather Standards & Guidelines Meeting

November 5<sup>th</sup>, 2010

Bill Perdue opened the meeting with a review of the meeting agenda. The next meeting will be at Myrtle Beach, SC. Bill has talked about changing the name of the committee that may help to get more people. Bill has asked the membership to submit any ideas and suggestions to him for review.

The minutes were reviewed and approved. Bill Reichel motioned to accept the minutes and Ken Kocheckian second acceptance of the minutes.

20 Members were in attendance for the meeting.

Bill Perdue provided an update on Eco3home program.

1. This program is the culmination of 12 years of work.
2. It started with EFEC and then, Sustainable by Design, then allowed for the successful launch of the Eco3home.
3. SBD was a focus on the broader issues with Sustainability including the social responsibility, carbon and greenhouse gas emissions, climate change element including registering with the climate registry, Supply Chain element, and Sustainable Business Practices. Some companies are moving EFEC into their supply chain. The AHFA Eco3home Program begins by focusing on the critical elements of the piece of Furniture to be registered. Then the AHFA looks at each specific component of the Furniture article that is being requested to be registered.
4. Articles that are registered with Eco3home includes:
  - a. Product registration:
  - b. A hard look at the component that goes into the Furniture
  - c. There is a punch list that includes: Safety, Health, i.e. looking at companies and products that are produced with more soy based foam, recycled metal component, products in the chair made out of recycled content, Formaldehyde levels, lead, etc.
  - d. Environmental Inventory – How much electricity, water, carbon, waste, was generated to build the piece of furniture. Kincaid went through this process with a 100 piece collection.
  - e. The Kincaid sales force was very excited about the Eco3home story.
  - f. Fundamentals:
    - Continuous Improvement
    - EFEC Improvements

- Board of examiners (Has Legal Council)
- New FTC Guidelines

g. Marketing Review Shelton Group

- The Shelton Group is an ECO Research Group
- 56% of the consumers stated that the chemical content of the Furniture is very important in their decision making process.
- 36% of the consumers indicated that the manufacturer's environmental practices impact their decisions.
- See the CNN Health 5 part series called Toxic America by Dr.Sanja Gupta
- Time report April 1<sup>st</sup>, 2010 "The Perils of Plastic"
- USA Today May 12<sup>th</sup>, 2009: "Study links formaldehyde to more common cancers"
- Eventually once the web site is complete, a consumer will be able to drive down into the Companies EFEC and SBD audit.
- Bill Perdue indicated that the consumer research data showed that the Eco3home interest was very strong in the western region of the USA, Colorado toward Oregon, Washington.
- Suppliers can be Eco3home certified.
- During the auditing process, the auditor actually must go to the factory, and audit all aspects of the Factory operations. There are no benchmarks designed for the program. The core philosophy; The Factory must have goals, tracking the goals, and each year the goals must improve. This program empowers suppliers to want to be part of the program.
- Hickory Chair has really embraced this program as well and their employees have really driven this to success.
- Dr, Cory congratulated Bill Perdue on the program. Dr. Cory attended the Leather Working Group Meeting at Addidas in May and this is a one legged stool that is only focused on Tanneries and is Benchmarked which is not working for the Tanneries. Only Addidas, Nike, etc only have access to the data. This is not accessible to the consumer so there is no real verification of the data.
- Bill Perdue presented this information to RELA and they may embrace this as the standard.

5. Dr. Cory gave a Presentation on Chromium VI & Germany:

- a. 20 years ago, Concrete workers in Germany were getting severe rashes after working extensively on construction sites. Scientists investigating this issue found hexavalent Chromium in Concrete. This was also found on Leather Work Gloves
- b. DIN 53314 was developed to test for this. PCP was found to be one of the chemicals used as a fungicide. The US banded this in 1986. 3 PPM Limit. It was almost impossible to meet this so 10 PPM was originally the standard
- c. In the 1990's Germany found certain dyes for used in leather and food were found to contain dyes that would break down and cause cancer.
- d. In 2005, Germany implemented the German Food & Feed Code LFGB- 2005
- e. In 2010, a new piece of legislation, the Consumer Products Ordinance – 2010 was implemented, ISO 17075 (IUC 18) Germany included Chairs & Sofas in this legislation.
- f. The standard today is now 3 PPM. Chromium VI is a very bad carcinogen, if inhaled. The Chromium VI can be generated if the leather is heated during tumbling, ironing, etc. Saturated lubricating oils can be used in leather production to avoid oxidizing chemicals. Dr. Cory indicates that most leathers can meet this standard today.
- g. EN420 – Protective Work Glove Act in 1994. This standard was also developed for the Shoe Footwear industry.
- h. Dr, Cory has been involved in Chromium VI investigations in the USA. Timex was involved in one of the investigations. The Julia Roberts Movie Erin Brockovich was about Chromium VI getting into the water. There is a current investigation under way in the USA of soil being contaminated by Chromium VI for tannery sludge being spread on farm land.
- i. Recently Dr. Cory tested allot of leather the automotive industry and found large levels of Chrome VI of 10 PPM. However the special testing requirement of Filtering the Leather extract will cause a false positive.
- j. They then add a special dye, DPC which will react to Chromium VI. They then read this into a spectrophotometer to measure the amount of Chrome VI.
- k. Europe has been testing for Chrome VI since 1993.
- l. There are many investigations for the presence of Chrome VI under way in the USA.
- m. Testing is mandatory for exporting leather upholstery or hides to Germany
- n. Dr. Cory recommends adding the test for Chrome VI to the AHFA Joint Industry Leather testing standard.

- o. Tanneries must use non oxidation fat liquors to prevent the formation of Chrome VI. You can now purchase fat liquors that prevent the creation of Chromium VI
- p. Formaldehyde in leather is not regulated in the U.S. A. High level in Leather are over 300 PPM. However in Europe a mouthwash can contain over 10,000 PPM.
- q. The 2 bath way of making leather, where leather is immersed in a bath of Hexavalent Chromium overnight and then they add a chemical to reduce the Chromium VI to Chromium 3. This is a very dangerous process and is used to create a very soft hand. This process is not used anymore in the U.S. or Europe but could still be used in India and China. There are many ways to create a very soft leather. Ken Kocheckian will send leather to Dr, Cory to have it analyzed.
- r. Bob Wilson indicated that solvent based chemicals used in tanning in China may create the very soft hand.
- s. The XRF Analyzer can detect Chromium in leather but will not know what type of Chromium.
- t. Current Standards for Heavy Metals in the USA:
  - EN71-3 Regulatory specification for migration of certain elements
  - ASTM F963 – standard Consumer Safety Specification for Toy Safety
    1. Made Mandatory by CPSIA in 2009
- u. Adding Mercury to the heavy metal testing for leather is recommended. The limit is 90 ppm.
- v. The Sierra Club and 3 other clubs have petitioned the CPSC to develop limits on Cadmium. Docket Number CPSC - 2010-0087
- w. Barium and Antimony are now coming under scrutiny by Washington.
- x. The CPSC will determine in the next several months what other Heavy Metals will be under scrutiny.
- y. Reform of TSCA Act of 1976 H.R. 5820 is under review.
- z. New leather Technical Leather Tests:
  - PH test – ISO 4045 – 2008 If the PH of the leather is less than 3.2.this could cause skin irritation. Having the ph on file will allow immediate response to Warranty Claims. If the leather has mineral acids in it, the collagens will break down in a year or 2 and cause finish cracking. By measuring the ph of returned leather and you have the original base line data available, you can determine

- CMC creates Automatic Ellipsoids – CMC automatically creates ellipsoids for you to follow. Delta A and H should match. Delta H always matches your visual assessment.
- Use Decmc as a pass fail factor.
- Use DL C H to assess component differences.

6. Presentation by Rachel Adams with the IICRC on Mold Remediation in Leather:

- a. IICRC Standard for Mold Remediation has been accredited by ANSI / S520-08 Standard for Mold Remediation
- b. ANSI insures that there is no dominance by 1 entity or group.
- c. 20 different associations represented the information in the Mold Remediation Manual including the EPA, PhD's, Doctor's, and Lawyers
- d. S520-2008 is a procedural standard. It is a court defensible document.
- e. This standard is being used by insurance companies, lawyers, architects, and IICRC Technicians.
- f. 90% of the time the hidden mold is 100% greater than what you visually see.
- g. There are 3 conditions of Mold. Condition 1 in a normal environment verses Condition 3 that is a serious condition with Mold Growth visually.
- h. Mold exposure is through inhalation of the mold in the air.
- i. This book is a document of care.
- j. Low VOC Materials used in making products is important.
- k. Non porous materials are very easy to clean for Mold. Porous Materials are very difficult to clean for mold.
- l. Cleaning Methods for condition 2 include HEPA-vacuuming, and Air Washing, Liquid based methods use detergent with minimal water.
- m. Abrasive Methods for removing mold are effective when working with wood. Sanding, scraping, brushing and can also include the use pressurized sprayers that shoots baking soda.
- n. Porous Textiles you can wash with detergents, conduct dry cleaning, etc.
- o. Post Remediation Verification is the final step after remediation is completed. This means that the items have been returned back to a condition 1 status.

why a leather furniture unit failed. Dr. Cory recommends that this be adopted by the AHFA Leather Standards Committee.

- Water spotting test – ISO 15700 – Finish receives 2 drops of water, 1 wiped off after 30 min, the second after 16 hours to determine if there are any finish issues. This is not recommended since we already do the Veslic Rub Fastness test.
- 3m Water Spotting – Different grades provide different levels of Alcohol & Water. This is used on leathers when placed in Bars where alcohol is used. Not recommended as a standard test for the AHFA.
- Oil Repellency (AATCC118) This is a very useful test method. This will determine if hair oils, body oils, etc., can be absorbed into the leather and then it receives a grade. The AHFA Leather Standards Committee should consider this test. This has been used by leather conditioning companies.
- Cold Crack Resistance - ASTM D1912 – When a leather gets subjected to very cold conditions during transportation or in a consumers home this will test for the strength of the finish. They normally test to -30 centigrade. This is a pass or fail test and is recommended to be added to the AHFA Joint Industry Testing Program.

#### Ann Laidlaw – X-Rite / Color Space and Color Assessment

- You must specify the light source when speaking color. D65, D70, D2000
- The color of blue socks will look black when in a very low D65 Lamp
- F11 Illuminants are TL84 This is a triphosphorous
- Illuminants - A mathematical description of the spectral power distribution of a light sources
- Crazy color spikes in color energy means that the color is fluorescent
- Humans have 3 trichromatic color vision. The 10 degree observer in the instrument measures a larger area to measure. 2 degree is a smaller area to measure.
- Setting color limits on an instrument. DE is not a successful pass fail strategy. The solution is LCH and LAB. This is polar coordinates, how many units out and how I am rotated.

- p. Successful removal of mold from leather is more successful for removing it from the finish side of the leather verses the crust side.

For the May, 2011 meeting in Myrtle Beach South Carolina, the Leather Standards Committee will make it a priority to review all existing AHFA Joint Industry Standards and Guidelines; consider revisions and additions to the Leather Standards and Guidelines and determine the changes and revisions that will need to be balloted to the Membership.

The AHFA Joint Industry Leather Standards and Guidelines Meeting was adjourned at 2:00 p.m.

