SUNDAY, SEPTEMBER 19, 2010

3:00 – 7:00 PM **Registration & Check-In**

7:00 PM **Cocktails and Hors d'oeuvres**

MONDAY, SEPTEMBER 20, 2010

Morning Session

7:30 AM **Welcome**

7:45 AM ***Anti-Flammable Thin Film Assemblies on Cotton Fabric***

Speaker: **Jaime Grunlan**
Texas A&M University

Cotton fabric was treated with flame-retardant coatings composed of branched polyethylenimine and montmorillonite clay platelets, prepared via layer-by-layer (LbL) assembly. The LbL process offers a unique platform from which to incorporate a variety of nanoparticles and polymers at the surface of flammable materials such as cotton, which may lead to even greater flame suppression in the future. This is very important for upholstered furniture, clothing, and bedding, whose flammability contributes to significant loss of life and property damage every year.

.

9:15 – 9:30 AM **Break**

9:30 AM ***Microwave Finishing of Textile Materials***

Speaker: **Sandra Bischof Vukušić**
University of Zagreb

Three different electromagnetic devices have been developed and applied in the textile industry. Within the paper the accent will be laid on the waveguide applicator model. In this area the authors are holding two patents for the Laboratory planar microwave device and for the Modular microwave device for the treatment of textile materials. To investigate the effect of microwave irradiation on the physical properties and morphological structure of cotton cellulose, cellulose fabric was treated with microwave irradiation at different conditions. Improvement of physical and mechanical properties obtained with MW technology have offered the possibility to use proposed model for drying and curing of textiles, as well as for chemical wood modification. The key advantages of the microwave energy application usage, so as the future development will be presented.

11:00 – 11:15 AM **Break**

11:15 AM ***The Road to Move Past PR Driven Sustainability***

Speaker: **Henry A. Boyter Jr., PhD**
Council for Economically Sustainable Textile and Apparel Businesses (CESTAB)

Textile, apparel, and retail companies looking to become more sustainable need to evaluate the goals, methods, and techniques that will be implemented throughout the supply chain of the products produced. . Future efforts of CESTAB and North Carolina State University will move the effort beyond the stages of just a PR or regulatory level of examination. These will include 1) creation of a sustainability metric system that is an encompassing umbrella that all companies can use to evaluate their supply chain, 2) creation of Alternative Substance Lists (ASL) and associated Chemical and Product Technical Reports so that companies can know what to use as well as what no to use, 3) evaluate current corporate sustainability systems to see what can work for different companies in the supply chain, 4) conduct research in textile, apparel, and retail sustainability to examine the unique knowledge needed for this global supply chain, and 5) develop products that are designed to be sustainable in all aspects of the triple bottom line.

12:45 PM **Lunch**

Afternoon: Social Activities /Personal Time

7:00 PM **Cocktails**
8:00 PM **Dinner**

TUESDAY, SEPTEMBER 21, 2010

Morning Session

7:30 AM **Welcome**
Election of Officers
Amendments to By-Laws

7:45 AM ***Tagging Systems for Identifying Counterfeited Products in the Textile Industry***

Speaker: **Renzo Shamey**
North Carolina State University

In today's rapidly changing market and due to increasing demands to authenticate substrates and protect production methods, it may be necessary to employ overt or covert tagging measures to protect the authenticity of brands and textile products. Authentication of products can protect the manufacturer and improve revenue, ensure quality, and increase consumer confidence. Such measures, however, need to be practical, cost effective and capable of resisting the production conditions during various processes and have the required durability during use. This paper reviews some of the current covert tagging techniques and provides a brief overview of a method developed jointly at North Carolina State University and Oak Ridge National Laboratory.

9:15 – 9:30 AM **Break**

9:30 AM ***An Overview of Cationic Treatments for Cotton: Dye Selection, Processes and Sustainability***

Speaker: **Leonard Farias**
Cotton Incorporated

A number of approaches have been used in recent years to reduce the water, energy and chemical (WEC) footprint of wet processes for cotton. These methods have included high fixation reactive dyestuffs, low salt dyes, equipment

modifications and design changes, more environmentally acceptable chemistries, new processing equipment as well as a number of other options to process cotton in a more sustainable way.
One specific approach has been to apply cationic treatments to cotton fiber, yarn or fabrics. This technology enhances dye uptake thereby reducing the amount of color in the waste stream. Cationic treatments provide multiple options for dye selection that are not normally used to impart color to cotton. Processes may be streamlined to be more efficient reducing cycle time as well as water and energy consumption. An overview will be presented related to dye selection, application procedures and environmental benefits related to the WEC footprint for processing cotton.

11:00 – 11:15 AM **Break**

11:15 AM ***Sustainable Chemistry***

Speaker: **TBA**
Clariant Corporation

12:45 PM **Conference Adjourns**

Details for the 2010 Southern Textile Research Conference

Further information on the conference and a registration form can be obtained at the STRC web site, www.TheSTRC.org, or by contacting the Conference Secretary (Dallas Crotts, ddcrotts@cottoninc.com, 704-822-6206). Applications should be submitted no later than August 13, 2009 to the address on the registration form.

Registration
The registration fee for the conference is:
$350.00 until August 13, 2010.
$425.00 after August 13, 2010.
$150.00 additional for those wishing to bring spouse (to cover meals)
Conference, meals, and associated taxes/tips are included.
Refunds are subject to $75.00 registration fee.

Please note and observe the following conference policies:
Entertaining is not permitted.
Papers presented at the conference are not published by STRC.
Conferees are expected to attend all sessions.
Attendance is required at both evening meals.
Casual attire is appropriate for all conference events.

2010 Officers

Peter Hauser
NC State University
General Chairman

Michele Wallace
Cotton Incorporated
Program Chair

George Henderson
Hexion
Treasurer

Dallas Crotts
Cekal Specialties
Secretary

Welcome to the 2010

Southern Textile Research Conference

"Progress Through Fundamentals"

SEPTEMBER 19-21, 2010
at the
MARINA INN GRANDE DUNES
Myrtle Beach, South Carolina

STRC operates under the auspices of the American Association of Textile Chemists and Colorists