



3rd Annual Davey Textile Solutions Inc.

Protective Clothing Systems *for Safety '11*

Wednesday, November 16, 2011

Oasis Conference Center

10930 177 St NW

Edmonton, Alberta, Canada



Davey | TEXTILE
SOLUTIONS

3M Scotchlite™
Reflective Material

Welcome

2011 marks the year of some very significant events for Davey Textile Solutions Inc. As we celebrate our 25th year, we are opening up a new market in the US, with a warehouse located in Houston, Texas. We have begun launching some brand new technologies that we have created for the reflective safety markets. Our work around Steam/Hot Water Protection is coming into being and the initial dream of finding a way to recycle post-consumer aramids has been realized. All of these are very exciting and an indication of how busy we have been.

Davey Textile Solutions Inc. is proud of all that has been accomplished in the past. This would not have been possible without our customers, our hardworking staff and the founding principles set forth by Jan and Al Davey. We look forward to the coming years and the further innovations they will bring.

Schedule

- 8:00 – 9:00 Reception / Continental Breakfast / Viewing Mini Industry Showcase
- 9:00 – 9:15 Opening Remarks: Grant Davey, President
- 9:15 – 9:55** **The Science Behind Conspicuous Apparel Design**
Howard Tolliver – Channel and New Ingredients Marketing Manager - Body Protection Solutions/OHES Division 3M Company
- 9:55 – 10:10 Break
- 10:10 – 10:45** **ASTM F2733 - The New Standard for Flame Resistant Rainwear for Industrial Flame Hazards**
Andrew Wirts – Sales and Marketing Director, NASCO Industries
- 10:45 – 11:00 Break
- 11:00 – 11:45** **The “Other” Side of PPE Development**
Dr. Joe Domitrovich M.Sc., Ph.D. – Exercise Physiologist, United States Forest Service, MTDC (Missoula Technology and Development Center)
- 11:45 – 1:00 Lunch

November 16, 2011

1:00 – 1:40

Understanding the Link Between Regulations, Standards and Certifications and Terms You Should Know

Chantal Adam – Technical Services and Development Coordinator, TenCate Protective Fabrics Canada Inc.

1:40 – 1:50

Break

1:50 – 2:40

Evolution of Protection - “Why the need for Quality Protection and Information, is greater now”

Peter Clark – VP of R&D, Apparel Solutions International

2:40 – 2:50

Break

2:50 – 3:50

Development of a Test Apparatus/Method and Material Specifications for Protection from Steam under Pressure – Project Update, Fall 2011

Mark Y. Ackerman P.Eng. – Department of Mechanical Engineering, University of Alberta

Thermal Protective Fabrics - Ghulam Murtaza - MSc (Textiles and Clothing) student, U of A

Design and Development of Garment Systems -Sihong Yu - MSc (Textiles and Clothing) student, U of A

4:00

Closing

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Abstracts

The Science Behind Conspicuous Apparel Design

Presented by Howard Tolliver - Channel and New Ingredients Marketing Manager - Body Protection Solutions/OHES Division 3M Company

Incorporating high visibility materials effectively into work wear design can help increase the chance of being seen. Learn the science behind how the eyes perceive people in low light conditions, and the technology behind the materials which enhance worker's visibility. This presentation will help you understand the key factors for effective apparel design that increase the visibility of workers exposed to vehicular or equipment traffic 24 hours a day.

ASTM F2733 - The New Standard for Flame Resistant Rainwear for Industrial Flame Hazards

Presented by Andrew Wirts - Sales and Marketing Director, NASCO Industries

In 2009, ASTM F2733 Standard Specification for Flame Resistant Rainwear for Protection Against Flame Hazards was approved by the ASTM Committee F23 on Personal Protective Clothing and Equipment to fill a gap in protective clothing standards for industrial flash fire hazards. The industrial flash fire hazard and human tissue burn injury basics will be described. The

FR rainwear protection testing and requirements as well as closure and seam integrity requirements for the new specification will be discussed in terms of addressing the flash fire hazards and reducing worker burn injury. A comparison of ASTM F2733 compliant rainwear and rainwear labeled as flame resistant to limited flame exposure standards will be highlighted in a video demonstration. Additional information including construction and material performance requirements for ASTM F2733 will be addressed as well.

The “Other” Side of PPE Development

**Presented by Dr. Joe Domitrovich M.Sc. Ph.D - Exercise Physiologist,
United States Forest Service, MTDC (Missoula Technology and
Development Center)**

Personal protective equipment (PPE) is a necessary component for an individual’s safety in recreational and occupational settings. Most current standards are based on external factors, such as radiant heat protection and flame resistance. However, there is increasing research on the importance of PPE’s effects on internal factors, such as the ability of PPE to dissipate heat. The primary heat stress source when working is from muscle contractions. During rest, the human body produces about 100 kilocalories of heat per hour, but during exercise, production of heat can increase 10 to 15 times. I will address the physiological consequences with the “other” side of PPE, including the body’s ability to prevent increases in body temperature, and what happens if body temperature cannot be maintained.

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Understanding the Link Between Regulations, Standards and Certifications and Terms You Should Know

Presented by Chantal Adam - Technical Services and Development Coordinator, TenCate Protective Fabrics Canada Inc.

With so much information floating around this subject, manufacturers as well as end users can easily be misled. This will address and review the various terms used in fabric testing, type of standards and certifications, as well as how they relate to regulations

Evolution of Protection - “Why the need for Quality Protection And Information, is greater now”.

Presented by Peter Clark - VP of R&D, Apparel Solutions International

Traditionally in flame resistant (FR) workwear/clothing in Western Canada was usually royal blue and often had some high visibility striping claimed to meet WorkSafeBC's requirements. Usually these were labelled as meeting one of the two North American flash fire apparel standards, and more recently one of the two North American workplace electrical safety standards. Now some jurisdictions are requiring that specific and different high visibility PPE standards also be met, that some apparel be certified to the PPE standard it is claimed to meet, and that specific levels of thermal protection be met or exceeded. This presentation will try to help end users be aware of these PPE apparel standards and an opinion on the changing requirements for some of these jurisdictions

Development of a Test Apparatus/Method and Material Specifications for Protection from Steam under Pressure – Project Update, Fall 2011

Presented by Mark Ackerman P.Eng - Department of Mechanical Engineering, University of Alberta

The Protective Clothing Research Group at the University of Alberta recently concluded an investigation of steam/hot water permeability properties of a range of FR protective clothing materials. We developed a bench scale evaluation device and procedures for evaluating protection against a steam hazard and a full scale test for use with hot liquids. This presentation describes the test apparatus that was developed, their capabilities and illustrates its utility through comparison of results among a representative set of materials as well as limited field data.

Graduate Student Presentations:

Design and Development of Garment Systems for Protection from Steam and Hot Water: Research in progress

Presented by Sihong Yu

Development of Thermal Protective Fabrics for Steam and Hot Water Protection: Research in Progress

Presented by Ghulam Murtaza

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Biographies



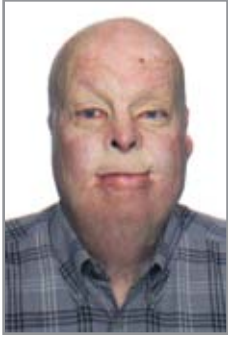
Mark Ackerman P.Eng.

Mark is a Mechanical Engineer in the Department of Mechanical Engineering at the University of Alberta. He teaches senior undergraduate courses in design, energy conversion and thermal systems. He has been involved in protective clothing and equipment research for more than 20 years and was part of the team that developed Canada's only flash fire test facility for the evaluation of FR clothing. His passion is the development and construction of equipment for material evaluation – particularly in the area of heat transfer.



Chantal Adam

Chantal Adam is a graduated of Textile College in St-Hyacinthe, (Quebec) as a Technician in dyeing & finishing of textiles. Since 2006 she works as a Technical specialist for protective fabrics manufacturer DIFCO and recently joined TenCate Protective Fabrics Canada. Her role is to insure fabrics meet the various standards and requirements for the various industries. She participates in the various Canadian standard committees such as CSA Z96, CAN/CGSB 155.22 as well as the Steam burn committee.



Peter Clark

Peter Clark is VP of R&D at Apparel Solutions International a Canadian manufacturer of PPE apparel. Through Peter Clark Associates he consulted for the Canadian Petroleum Association -now CAPP, on the original industry safety practice that became the draft for CAN/CGSB-155.20-2000, and represented the Alberta Burn Rehab. Society on the original Canadian General Standards Board committee responsible for CAN/CGSB-155.20 & CAN/CGSB-155.21. He is also a member of the National Fire Protection Association's Technical Committee on Flash Fire Protective Garments responsible for NFPA 2112 & NFPA 2113 -now available in 2012 editions. Recently Peter has been providing input on PPE to the safety department of Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NFOPB), input to WorkSafeBC on their high visibility PPE legislation, standard and alternative CSA standard, continues to help PPE end users and to develop better safety apparel solutions.



Dr. Joseph Domitrovich M.Sc., Ph.D.

Joe Domitrovich is an exercise physiologist at the MTDC. His work includes hydration, nutrition, employee health, stress, and fitness testing. Joe also is a wildland firefighter.

Joe received a bachelor's degree in kinesiology at Cal Poly San Luis Obispo in California. He has a master's degree in exercise physiology and an interdisciplinary studies Ph.D. with an emphasis in exercise science from the University of Montana.

His recent Forest Service publications include "Heat Illness Basics for Wildland Firefighters" and "Hydration Strategies for Firefighters."



Howard Tolliver

Howard has been with 3M Company for 28 years where he has held numerous technical and business roles with a principal focus on retroreflective materials. He holds a Master of Science degree in Chemical Engineering from the University of Louisville with a specialization in Continuous Melt Processing. During his 22 years with Traffic Safety Systems Division, Howard's work resulted in 12 US/Global patents and a host of new products for the Construction Work Zone and Marine Industries. He later assumed a marketing role with responsibility for Pavement Markings. In his current role with 3M's Occupational Health and Safety Division he is responsible for global channel marketing programs for the Scotchlite™ and Thinsulate™ Brands, industry engagement, and identifying new ingredient solutions. Howard is a member of the Board of Directors for the American Road and Transportation Builders Association and participates at the National Committee on Uniform Traffic Control Devices with a expertise in personnel protection equipment for low visibility hazards.



Andrew Wirts

Andrew has been the Sales and Marketing Director at NASCO Industries, a manufacturer of rainwear for the last 10 years. Prior to that, he spent 10 years developing the FR rainwear market for gas and electric utility companies in the US. Andrew's technical background with FR materials has enabled him to serve on several standard making organizations. Andrew is a member of NFPA and ISEA and has been a member of ASTM since 1994 where he serves on committees F18 on Electrical Protective Equipment for Workers and F23 on Personal Protective Clothing and Equipment, the committee responsible for ASTM F2733, Standard Specification for Flame Resistant Rainwear for Protection Against Flame Hazards.

University of Alberta Graduate Students



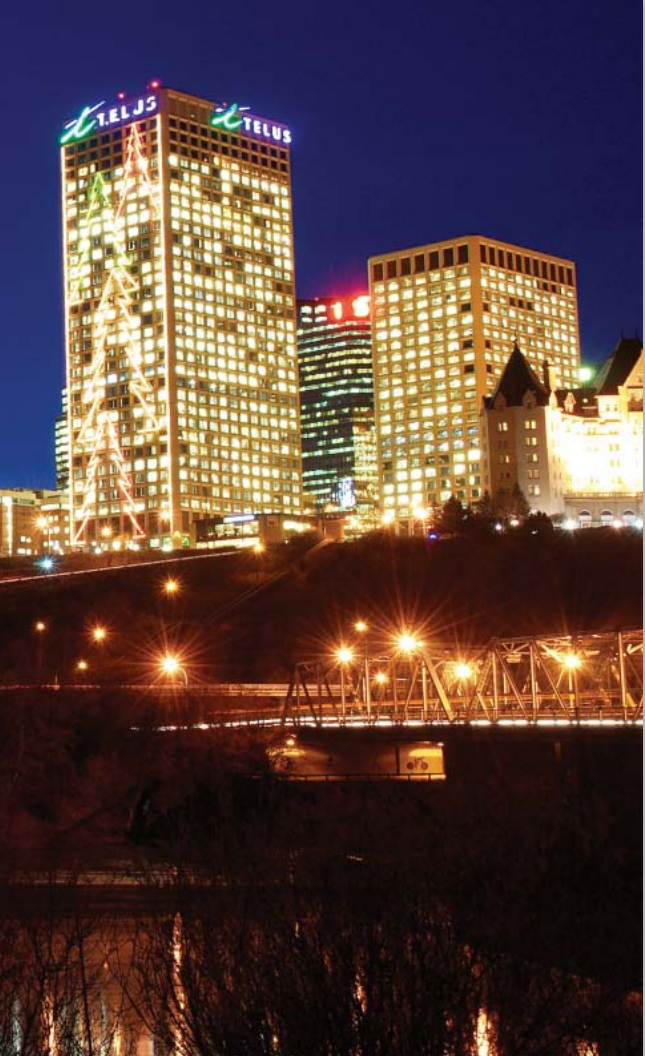
Ghulam Murtaza

Ghulam Murtaza is currently an MSc (Textiles and Clothing) student in the Department of Human Ecology, University of Alberta. He holds a B.Sc. (Hons) in Textile Science from the Textile Institute of Pakistan, as well as certificates in ISO 9000 and Supply Chain Management. His work experience includes both Quality Manager and Technical Manager for Gul Ahmed Textile Mills, General Manager with the Gulistan Group of Companies, and General Manager with Silver Textile Factory, all in Pakistan. While studying at the U of A, he has served as a teaching assistant and as a research assistant for PCERF and on the steam and hot water protection research project.



Sihong Yu

Sihong Yu received her bachelor's degree in Fashion Design and Engineering in 2010 from Donghua University, formerly known as China Textile University. She is now a student in the M.Sc. program in the Department of Human Ecology at the University of Alberta, focusing on functional apparel design.



Registration

Registration fee for attendance is a non-refundable fee of \$10.00 per seat. All proceeds from registration will be donated to the Firefighter Burn Treatment Society - Edmonton Chapter.

Seating is limited and early registration is recommended. All early registrants will be entered into a draw for an Asus EeePad Transformer tablet pc with keyboard dock. **Deadline for early registration is Oct. 14.**

To register or for further information, please contact Jessica Heinrichs at 1-780-484-4422 or 1-800-484-4888 or email jheinrichs@daveytextiles.com. For payment and either email, fax or mail the completed registration form to:

Mail: Davey Textile Solutions
10505-169 Street
Edmonton, Alberta
T5P 4Y7 Canada

Fax: 780.484.4442

Email: jheinrichs@daveytextiles.com





Registration Form

Name:	
Company:	

Address:	City:
Province/State:	Postal/Zip Code:
Country:	Phone:
Email:	

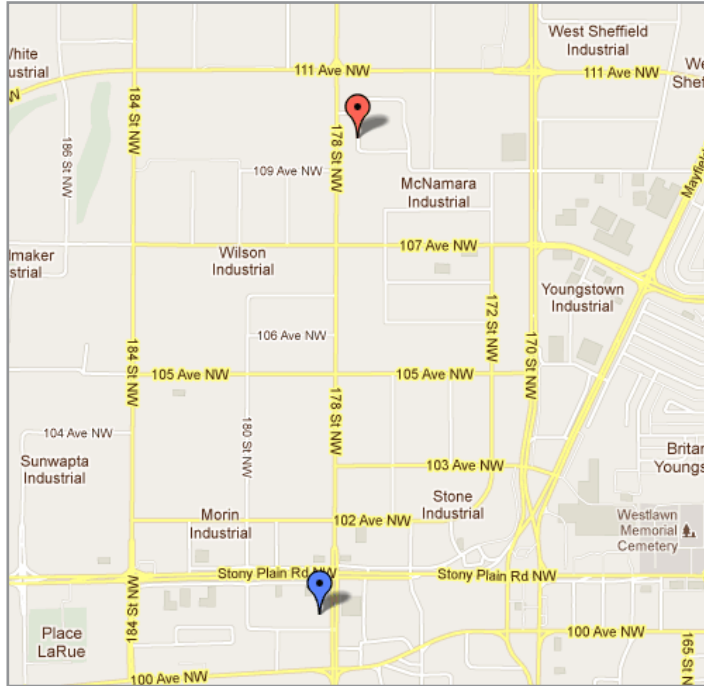
Registration Fee: **\$10.00 per seat**

# of Seats Reqd.	Total

Form of Payment? Visa Mastercard Cheque

Card #	Exp. Date
Cardholder Name:	
Signature:	

Locations



Oasis Centre Conferencing
10930 177 St NW
Edmonton, AB T5S 2X7
(780) 451-9227
oasiscentre.com



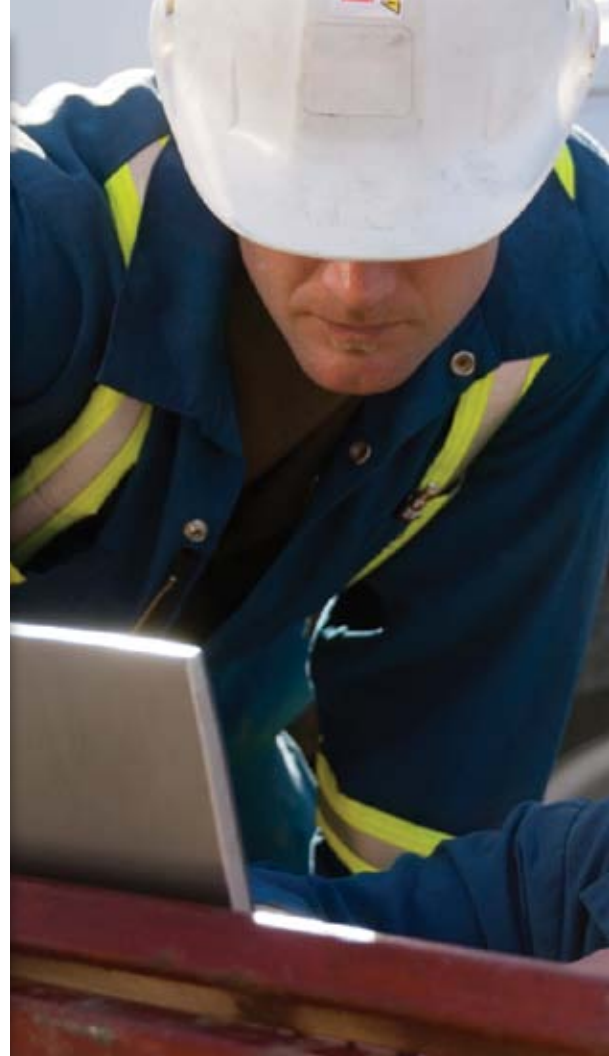
Executive Royal Inn West Edmonton
10010 178 Street NW
Edmonton, AB T5S 1T3
(780) 484-6000
executivehotels.net/edmonton

Accommodation Information

Accommodations are available at **Executive Royal Inn West Edmonton** for **Tuesday, November 15 & Wednesday, November 16**. **Special rate for this event is \$114 per night**. They will be a complimentary shuttle to and from the Oasis Center where the seminar will take place.

In order to make your reservation please call at either **1-800-661-4879** or **780-484-6000** before **October 14**. The reservation must be made via phone and not online. The group reference number is *"5976 Davey Textile Solutions"*.

Any other questions about the accommodations, please call 780-930-6856.





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