

TAPPI's Engineering, Pulp Manufacture & Environmental Divisions announce:

2005 TAPPI Engineering, Pulping & Environmental Conference

August 28-31 Philadelphia, PA

"A truly unprecedented program, with an outstanding collection of speakers"

"A unique opportunity to understand today's environmental challenges from operations, supplier and regulatory perspectives"

Complete with tutorials, round tables, workshops, new technology, showcases, table top trade fair, air fair...and more!

BETTER

- ▶ Improve pulp and recycled fiber quality
- ▶ Improve environmental performance
- ▶ How a biorefinery may better your future

LOWER COST

- ▶ Cost - effective solutions for air emissions challenges
- ▶ Reduce energy usage
- ▶ Optimize your pulp and kraft recovery operations
- ▶ Leverage a better understanding of recovered fiber supply
- ▶ Reduce caustic usage



FASTER

- ▶ Reduce time lost to material - related failures
- ▶ Reduce maintenance downtime
- ▶ Improve productivity
- ▶ Improve equipment uptime

For more information please visit www.tappi.org/05epe



2005 TAPPI Engineering, Pulping, & Environmental Conference

TAPPI is pleased to announce the partnership of the Engineering, Pulp Manufacture and Environmental Divisions in a joint conference venue to be held August 28-31, 2005. We are also pleased to welcome our co-sponsors: PAPTAC (Pulp & Paper Technical Association of Canada), RPTA (Recycled Paperboard Technical Association) and ABTCP (Brazilian Technical

Association of the Pulp & Paper Industry). Conference organizers have worked to develop a program packed with new developments, information, guidelines, tools, and learning opportunities for those involved in engineering, pulping, chemical recovery, environmental, bleaching and recycling.

HERE ARE JUST A FEW OF THE TOPICS THAT WILL BE COVERED.

- ▶ Mill Maintenance
- ▶ Nutrient Criteria
- ▶ Sludge Handling
- ▶ Cooling Water Intakes
- ▶ Capital Investment Strategy
- ▶ Burn, Bury or Biorefine Sludge
- ▶ Improving Pulp Fiber Quality
- ▶ Process Improvements in Recycling Operations
- ▶ Energy Conservation and Cost Reduction
- ▶ USEPA Sector and Voluntary Initiatives
- ▶ Instrumentation in the Pulp Mill
- ▶ Alternative Boiler Fuels

HOT TOPICS	Engineering	Pulp Manuf.	Environmental
Recycling		x	x
Boiler MACT Compliance	x		x
Evolution of the Biorefinery concept	x	x	x
Energy Efficiency/Cost	x	x	
Asset Management	x		
Climate Change			x
The state of the industry	x	x	x
New source reform	x		x
New regulatory initiatives	x	x	x
Caustic Usage		x	
Pulp Strength Delivery		x	

Pulping Tracks

SUNDAY, AUGUST 28, 2005

	General Interest	Alkaline Pulping & Bleaching	Recycling	Fiber Raw Materials	Nonwood Pulping	Mechanical Pulping
9:00 am - 5:00 pm		Session 2: Bleach Plant Workshop				
12:00 p.m. - 2:00 pm						
2:00 p.m. - 4:00 pm			Session 3: Enzymes at Work: An Introduction to Enzyme Technologies for Forest Product Industry			
4:00 p.m. - 6:00 pm			Session 4: Global Paper Recycling Research Trends and Needs			

MONDAY, AUGUST 29, 2005

8:30 am - 10:00 am	Session 5: Awards & Keynote Speaker					
10:30 am - 12:00 pm	Session 6: State of the American Pulp and Paper Industry	Session 9: Improved Methods of Alkaline Pulping	Session 8: Recycled Furnish Quality Issues			Session 9: Improved Methods of Alkaline Pulping
12:00 pm - 1:30 pm	LUNCH ON OWN					
1:30 pm - 3:00 pm	Session 11: Pulp & Paper Business Issues	Session 13: Performance Based Specifications for Government Paper Panel (joint Environmental/ Bleaching)	Session 14: Recycled Fiber Properties		Session 12: Developments in Nonwood Fiber Pulping (Session ends at 2:30)	
3:30 pm - 5:00 pm	Session 21: Residuals Management (joint Pulping/ Environmental)	Session 17: Alternative Caustic Source Roundtable			Session 18: Developments in Nonwood Fiber Black Liquor Recovery (Session ends at 4:30)	Session 20: Mechanical Pulping

Pulping Tracks

TUESDAY - AUGUST 30, 2005

	General Interest	Alkaline Pulping & Bleaching	Recycling	Fiber Raw Materials	Nonwood Pulping	Mechanical Pulping
	Session 22: Pulping/Engineering NTS					
7:00 am - 8:30 am	Session 24: Hot Topics Breakfast					
8:30 am - 10:00 am		Session 25: Mineral Scale and Trace Metals Management Tutorial (joint PMD and AiCHE)				
		Session 27: Better Testing and Process Control	Session 32: Stickies			
		Session 30: Developments in Enzyme-Assisted & Polyoxometalate Bleaching				
10:30 am - 12:00 pm	Session 34: Recovery System Fouling Mitigation Tutorial (joint Pulp/Eng)	Session 37: Optimizing the Caustic Extraction Stage	Session 40: Microstickies Panel			
12:00 pm - 1:30 pm	LUNCH ON OWN					
1:30 pm - 3:00 pm		Session 43: Mill Operational Troubleshooting Issues				
		Session 44: Novel Methods for Upgrading Recycled Fibers (joint Bleaching and Recycling Session)				
		Session 48: Improving Mill Operations				
3:30 pm - 5:00 pm		Session 51: Optimizing ECF Bleaching Issues	Session 57: Recycled Fiber Committee Meeting	Session 56: Fiber Raw Materials (session ends at 5:30)		

WEDNESDAY - AUGUST 31, 2005

7:00 am - 8:30 am	Session 58: Hot Topics Breakfast					
8:30 am - 10:00 am	Session 63: External & Internal Factors in Gasification (joint Pulp/Eng)	Session 60: More Effective Enzyme Assisted Bleaching	Session 66: Deinking			
	Session 64: Best Practices: A Tool to Reduce Energy Cost	Session 61: Advances in Liquor Preparation				
10:30 am - 12:00 pm	Session 68: Breakthrough Technologies: A Tool for Substantial Economic Impact	Session 67: Controlling Process Variability	Session 71: Sorting the Recycled Fibers			
		Session 69: Developments in Causticizing				
		Session 70: Oxidative Delignification for Improved Fiber Properties				
12:00 pm - 1:30 pm	LUNCH ON OWN					
1:30 pm - 3:00 pm	Session 76: Forest Biorefinery: A More Compelling & Profitable Business Model (Session ends at 3:30)	Session 75: Developments in Modified Cooking				
		Session 79: Advances in Ozone Delignification for ECF Sequences				

Environmental Tracks

SUNDAY, AUGUST 28, 2005

	General Interest	Water Quality	Air	Environmental Management	Residuals Management
8:30 am -4:00 p.m.	Session 2: Bleach Plant Workshop	Session 1: Biological Wastewater Workshop			

MONDAY, AUGUST 29, 2005

8:30 am -10:00 am	Session 5: Opening Session & Awards Ceremony				
10:30 am - 12:00 pm	Session 6: State of the American Pulp & Paper Industry	Session 7: Pulp & Paper Nutrient Issues Panel			
12:00 pm - 1:30 pm	LUNCH ON OWN				
1:30 pm - 3:00 pm	Session 11: Pulp & Paper Business Issues		Session 15: New Regulatory Initiatives	Session 13: Performance-Based Specifications for Gov't Paper (joint Environmental/Bleaching)	
3:30 pm - 5:00 pm			Session 23: New Source Review Reform Roundtable	Session 19: Climate Change Panel	Session 21: Residuals Management Panel

TUESDAY - AUGUST 30, 2005

7:00 am- 8:30 am	Session 24: Hot Topics Breakfast				
8:30 am - 10:00 am		Session 26: Innovative Wastewater Treatment Opportunities	Session 29: Boiler MACT Tutorial (joint Air Quality/Engineering)		Session 31: Residuals Management (Session ends at 9:30)
10:30 am - 12:00 pm		Session 35: Joint Air/Water	Session 39: Environmental Permitting Panel		Session 38: Residuals Management Cmte Meeting
			Session 36: Boiler MACT Control Technology (joint Air/Eng) (Session ends at 11:30)		
12:00 pm - 1:30 pm	LUNCH ON OWN				
1:30 pm - 3:00 pm		Session 42: PBT TMDLs Panel	Session 45: Air Committee Meeting	Session 49: Environmental Management Committee Meeting	
3:30 pm - 5:00 pm	Session 55: Environmental New Technology Showcase		Session 52: Air Fair		

WEDNESDAY - AUGUST 31, 2005

7:00 am- 8:30 am	Session 58: Hot Topics Breakfast				
8:30 am - 10:00 am		Session 59: Water Quality Committee	Session 65: Environmental Considerations for Firing Alternative Fuels (joint Air/Engg)		
10:30 am - 12:30 pm			Session 72: Boiler NOx Issues		

EngineeringTracks

MONDAY - AUGUST 29, 2005

	General Interest	Steam & Power/Energy	Asset Management	Corrosion & Materials
8:30 am - 10:00 am	Session 5: Opening session & awards ceremony			
10:30 am - 12:00 pm	Session 6: State of the American Pulp & Paper Industry	Session 10: Process Engineering & Simulation		
12:00 pm - 1:30 pm	LUNCH ON OWN			
1:30 pm - 3:00 pm	Session 11: Pulp & Paper Business Issues			Session 16: Millwide Tanks & Pressure Vessel Inspection Protocols Panel
3:30 pm - 5:00 pm	Session 22: Engineering/Pulping New Technology Showcase			

TUESDAY - AUGUST 30, 2005

7:00 am- 8:30 am	Session 24: Hot Topics Breakfast			
8:30 am - 10:00 am		Session 25: Mineral Scale Tutorial Session 29 : Boiler MACT Tutorial (joint Eng/Envr) Session 33: Black Liquor & ESP Dust Properties	Session 28: Maintenance & Mill Engineering I	
10:30 am - 12:00 pm		Session 34: Recovery System Fouling Mitigation (joint Eng/Pulp) Session 36: Boiler MACT Control Technology (joint Eng/Air Quality)		
12:00 pm - 1:30 pm	LUNCH ON OWN			
1:30 pm - 3:00 pm		Session 41: Multifuel and Maintenance Considerations Session 50: Recovery Boiler Fouling and Sootblowing	Session 47: Management of Major Capital Projects Around the World (session ends at 5:00 p.m.)	Session 46: Corrosion and Materials Selection (Session ends at 3:30)
3:30 pm - 5:00 pm		Session 54: Improving Heat Transfer and Heat Recovery		Session 53: Recovery Boiler Materials Performance (Session ends at 5:30)

WEDNESDAY - AUGUST 31, 2005

7:00 am- 8:30 am	Session 58: Hot Topics Breakfast			
8:30 am - 10:00 am		Session 63: External and Internal Factors in Gasification Session 64: Best Practices: A Tool to Reduce Energy Costs Immediately Session 65: Environmental Considerations for Firing Alternative Fuels (joint Eng/Env)	Session 62: Maintenance & Mill Engineering II	
10:30 am - 12:00 pm	Session 68: Breakthrough Technologies: A Tool for Substantial Economic Impact	Session 73: BL Gasifier Materials Session 74: Energy Economics Tutorial		
12:00 pm - 1:30 pm	LUNCH ON OWN			
1:30 pm - 3:00 pm	Session 76: Forest Biorefinery: A More Compelling & Profitable Business Model		Session 77: Bill Babbington Maintenance Roundtable	
	Session 78: Safety (Session ends at 2:30)	Session 80: Recovery Boiler Composite Tube Cracking		Session 80: Recovery Boiler Composite Tube Cracking

Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

Sunday, August 28

8/28/2005 8:30:a.m. - 4:00:p.m. Session: 1 Biological Wastewater Workshop

Session Chair

Michael H. Foster, Env. Bus. Specialists L.L.C.

1 - 1 8:30 am

ASB Optimization and Troubleshooting

Michael H. Foster, Env. Bus. Specialists L.L.C., Speaker

1 - 2 12:30 pm

Activated Sludge Troubleshooting

TBA,

Workshop Chair & Instructor(sponsored by the Water Quality Committee)

Michael H. Foster, Environmental Business Specialists L.L.C

Instructor

W. Wesley Eckenfelder, Technical Director, AquAeTer

This workshop is designed for operators, supervisors, and engineers responsible for the day-to-day operation of wastewater treatment facilities. Benefits to be gained from attending the Workshop include improved compliance, greater ease of operation, and reduced treatment costs. Using lectures, case histories, and actual mill scenarios, the workshop will focus on understanding and troubleshooting aerated stabilization basins and activated sludge systems. Key topics include Biological Wastewater Basics, Nutrient Optimization, Wastewater Microbiology, and Process Troubleshooting.

A supplemental workshop fee of \$50 is required (lunch is included). In order to attend this workshop, you must be registered for the Engineering, Pulping, and Environmental Conference.

8/28/2005 9:00:a.m. - 5:00:p.m. Session: 2 Bleach Plant Workshop

Session Chair

Thomas J. McDonough, Consultant

This one day workshop will provide participants with a broad, basic understanding of kraft pulp bleaching technology as well as prepare them to derive maximum benefit from the bleaching panels and papers to be presented during the Engineering, Pulping, and Environmental Conference. The workshop is designed for bleach plant operators or engineers; paper company environmental engineers; research, technical sales, and service personnel from paper companies, chemical suppliers or equipment suppliers. Achieve a basic understanding of pulp bleaching technology and its implications for pulp properties and environmental management. Enjoy the opportunity to discuss bleach plant operating problems with experts in the field, and walk away from the workshop with information and materials to help you on your job immediately.

A supplemental workshop fee of \$50 is required (lunch is included). In order to attend this workshop, you must be registered for the Engineering, Pulping, and Environmental Conference.

8/28/2005 2:30:p.m. - 4:00:p.m. Session: 3 Enzymes at Work:
An Introduction of Enzyme Technologies for Forest Product Industry

Session Chair

Phil Hoekstra, Buckman Laboratories Inc.

8/28/2005 4:00:p.m. - 6:00:p.m. Session: 4 Global Paper Recycling Research Trends and Needs

Panel Moderators

Junyong Zhu, USDA Forest Products Lab

Mahendra R. Doshi, Progress in Paper Recycling

4 - 1 4:00 pm

Panelists

Zhan Huaiyu, South China Univ. of Technology

Gerard Galland, Centre Technique Du Papier

Loreen D. Ferguson, SCA North America Tissue Division

Monday, August 29

8/29/2005 8:30:a.m. - 10:00:a.m. Session: 5 Opening Session and Awards Ceremony

8/29/2005 10:30:a.m. - 12:00:p.m. Session: 6 State of the American Pulp And Paper Industry

Session Chair

Thomas J. McDonough, Consultant

Speaker

James McNutt, Ctr. Paper Bus. & Ind Studies

8/29/2005 10:30:a.m. - 12:00:p.m. Session: 7 Pulp & Paper Nutrient (Panel)

Panel Moderator

Robert M. Stein, Aware Environmental Inc.

8/29/2005 10:30:a.m. - 12:00:p.m. Session: 8 Recycled Furnish Quality Issues

Session Chair

Joseph R. Cable, Buckman Laboratories Inc.

8 - 1 10:30 am

The Impact of Changing ONP Quality on a Newsprint Mill

William K. Sacia, Weyerhaeuser Company, Speaker

Jay Simmons, Weyerhaeuser Company

Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/29/2005	10:30:a.m. - 12:00:p.m.	Session: 8	Recycled Furnish Quality Issues
8 - 2	11:00 am	The Influence of Asian Imports on the US OCC Market William P. Moore, Moore & Associates, Speaker	
8 - 3	11:30 am	Paper Recovery Challenges and Opportunities Cathy Norris, AF & PA, Speaker	
8/29/2005	10:30:a.m. - 12:00:p.m.	Session: 9	Improved Methods of Alkaline Pulping
		Session Chair Peter W. Hart, MeadWestvaco Corporation	
9 - 1	10:30 am	Determining the Heat of Reaction of Kraft Pulping Charles E. Courchene, IPST at Georgia Tech, Speaker Thomas J. McDonough, IPST at Georgia Tech Blair R. Carter, IPST at Georgia Tech Earl W. Malcolm, Peter W. Hart, MeadWestvaco Corporation	
9 - 2	11:00 am	A Quantitative Comparison of the Kinetic Features of Green Liquor-Modified Versus Conventional Kraft Pulping Lucian A. Lucia, North Carolina State University, Speaker Weiping Ban, IPST at Georgia Tech Dimitris S. Argyropoulos, North Carolina State University	
9 - 3	11:30 am	Use of Borate in Semichemical Pulping John H. Cameron, Western Michigan University, Speaker Promodh K. Veguru, Western Michigan University	
8/29/2005	10:30:a.m. - 12:30:p.m.	Session: 10	Process Engineering & Process Simulation
		Session Chair Loren E. Euhus, Pacific Simulation	
10 - 1	10:30 am	Dynamic Modeling and Optimization of Pressurized Peroxide Stages Louis L. Edwards, University of Idaho, Speaker Barry Malmberg, University of Idaho	
10 - 2	11:00 am	Process Mapping; Fibers, Energy and Water Management Marco Pescantin, Comer SpA, Speaker	
10 - 3	11:30 am	Multivariate Analysis for the Development of a TMP Simulation Model Lang Li, UQTR, Speaker	
10 - 4	12:00 pm	Neural Network Model-Based Paper Machine Marginal Cost Curves Theodora Retsina, American Process Inc., Speaker Steven R. Rutherford, American Process Inc. Patrinos Panagiotis, National Tech. Univ. of Athens Haralambos Sarimveis, National Tech. Univ. of Athens	
8/29/2005	1:30:p.m. - 3:00:p.m.	Session: 11	Pulp & Paper Business Issues
		Session Chair Colleen C. Walker, CPBIS	
11 - 1	1:30 pm	The Myth of Commodity Pulps Alan F. Button, Buttonwood Consulting LLC, Speaker Hiroki Nanko, IPST at Georgia Tech David C. Hillman, Dave Hillman Consultants	
11 - 2	2:00 pm	The Adaptable Integrated Biorefinery for Existing Pulp Mills Michael Farmer, CPBIS, Speaker	
11 - 3	2:30 pm	Global Competitiveness of the U.S. South's Linerboard Sector Jacek M. Siry, University of Georgia, Speaker Thomas G. Harris, Jr., University of Georgia	
8/29/2005	1:30:p.m. - 2:30:p.m.	Session: 12	Developments in Nonwood Fiber Pulping
		Session Chair Robert W. Hurter, HurterConsult Incorporated	
12 - 1	1:30 pm	A Simplified Pulping & Bleaching Process for Nonwoods with High Pith Content: Trials on Bagasse Medwick V. Byrd, Jr., North Carolina State University, Speaker Robert W. Hurter, HurterConsult Incorporated	
12 - 2	2:00 pm	An Improved Environmentally Benign Process for Manufacturing High Quality Chemical Bagasse Pulp Rakesh K. Jain, Central Pulp & Paper Research Institute, Speaker Arvind G. Kulkarni, Central Pulp & Paper Research Institute Ashwini Dixit, Kawaljeet Singh, R.M. Mathur, Central Pulp & Paper Research Institute	



Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/29/2005 1:30:p.m. - 3:00:p.m. Session: 13 Performance-based Specifications for Government Paper (joint Environmental/Beaching) Panel

Panel Moderator

Carl J. Houtman, USDA Forest Products Lab

8/29/2005 1:30:p.m. - 2:30:p.m. Session: 14 Recycled Fiber Properties

Session Chair

John H. Cameron, Western Michigan University

14 - 1 1:30 pm **Measurement of Fiber Hornification Using High Resolution Thermogravimetric Analysis**

Sunkyu Park, North Carolina State University, Speaker

Hasan Jameel, North Carolina State University

Joel J. Pawlak, North Carolina State University

Richard A. Venditti, Jr., North Carolina State University

14 - 2 2:00 pm **Upgrading OCC and Recycled Liner Pulps by Medium-Consistency Ozone Treatment**

Miguel Zanuttini, Facultad De Ingenieria Quimica (FIQ-UNL)

Tom McDnough, CPBIS, Speaker

Charles E. Courchene, IPST at Georgia Tech

8/29/2005 1:30:p.m. - 3:00:p.m. Session: 15 New Regulatory Initiatives

Session Chair

Amy M. Marshall, URS Corporation

15 - 1 1:30 pm

Regulatory Update

Robert C. Kaufmann, Georgia-Pacific Corporation, Speaker

15 - 2 2:00 pm

Challenges Facing Facilities in 8-hour Ozone and/or PM Fine Nonattainment Areas

Deanna L. Duram, Trinity Consultants, Speaker

15 - 3 2:30 pm

Source-Specific Regional Haze BART Assessments (for Regional Haze BART topic)

Robert J. Paine, ENSR Corporation, Speaker

David Heinold, ENSR Corporation

Robert M. Iwanchuk, ENSR Corporation

8/29/2005 1:30:p.m. - 3:00:p.m. Session: 16 Millwide Tanks and Pressure Vessel Inspection Protocols Panel

Session Chair

Joseph R. Kish, PAPRICAN

8/29/2005 3:30:p.m. - 5:00:p.m. Session: 17 Alternative Caustic Source Roundtable

Session Chair

Peter Gleadow, Procylic Consulting

8/29/2005 3:30:p.m. - 4:30:p.m. Session: 18 Developments in Nonwood Fiber Black Liquor Recovery

Session Chair

Medwick V. Byrd, Jr., North Carolina State University

18 - 1 3:30 pm

Lowering Cost of Bio-Ethanol Production Using Electrolytic Process

Ricardo F. Caro, Electrosep Inc., Speaker

Robert W. Hurter, HurterConsult Incorporated

18 - 2 4:00 pm

Treatment of Non-Wood Black Liquors by Electrolysis and Lignin Precipitation

Jairo H. Lora, Granit S.A., Speaker

Jean-Noel Cloutier, PAPRICAN

Ricardo F. Caro, Electrosep Inc.

8/29/2005 3:30:p.m. - 5:00:p.m. Session: 19 Climate Change (Panel)

Panel Moderator

Dale K. Phenicie, Env. Affairs Consulting

Panelists

Reid A. Miner, NCASI

Tom Rosser, FPAC

Dee Gavora, AF & PA

19 - 1 3:30 pm

Climate Change and the Forest Products Industry-The Importance of the Big Picture



Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/29/2005	3:30:p.m. - 5:00:p.m.	Session: 20	Mechanical Pulping
		Session Chair: Raymond Francis, Empire State Paper Research Institute The Relationship between Refiner Speed and Energy Consumption in TMP and CTMP Jeffery S. Hsieh, Georgia Inst. of Technology, Speaker Tim Wang	
20 - 1	3:30 pm		
20 - 2	4:00 pm	High-Quality Wood Handling a Prerequisite for High-Quality Mechanical Pulp Tom Lind, Jaakko Poyry Inc., Speaker Oksanen Nicholas, Jaakko Poyry Inc.	
20 - 3	4:30 pm	Evaluation of Forest Thinning Materials for TMP Production Junyong Zhu, USDA Forest Products Lab, Speaker John H. Klungness, USDA Forest Products Lab Roland L. Gleisner, USDA Forest Products Lab Doreen Mann, USDA Forest Products Lab Karen Scallon, USDA Forest Products Lab Eric Horn, BioPulping International Louis L. Edwards, University of Idaho	

8/29/2005	3:30:p.m. - 5:00:p.m.	Session: 21	Residuals Management (Panel)
		Session Chair William E. Thacker, NCASI Refining the Recipe to Maximize Long-term Soil Fertility William E. Thacker, NCASI, Speaker Fiber Clay from Byproduct to Product Peter Coleman, Eresco, Inc., Speaker Manufactured Topsoil Using Papermill Residuals Andrew Carpenter, Northern Tilth, Speaker	
21 - 1	3:30 pm		
21 - 2	4:00 pm		
21 - 3	4:30 pm		

8/29/2005	3:30:p.m. - 5:00:p.m.	Session: 22	Engineering/Pulping New Technology Showcase
		Session Chair Don R. Sorenson, AMEC	

8/29/2005	3:30:p.m. - 5:00:p.m.	Session: 23	New Source Review Reform Roundtable
		Roundtable Moderator John P. Egan, ALL4 Inc.	

Tuesday, August 30

8/30/2005	7:00:a.m. - 8:30:a.m.	Session: 24	Hot Topic Breakfast
		Roundtable Moderator John P. Egan, ALL4 Inc.	
8/30/2005	8:30:a.m. - 10:00:a.m.	Session: 25	Tutorial on Mineral Scale and Trace Metals Management (joint session PMD/AICHE)
		Session Chair Brian N. Brogdon, Kemira Chemicals Inc. Fundamental Chemistry of Precipitation and Scale Formation Alan W. Rudie, USDA Forest Products Lab, Speaker Peter W. Hart, MeadWestvaco Corporation Non-process Elements in the Paper Industry Peter W. Hart, MeadWestvaco Corporation, Speaker Alan W. Rudie, USDA Forest Products Lab Case Studies in Scale Prevention Peter W. Hart, MeadWestvaco Corporation, Speaker Alan W. Rudie, USDA Forest Products Lab	
25 - 1	8:30 am		
25 - 2	9:00 am		
25 - 3	9:30 am		

8/30/2005	8:30:a.m. - 10:00:a.m.	Session: 26	Innovative Waste Water Treatment Opportunities
		Session Chair Mike Foster, Envr. Bus. Specialists L.L.C. Innovative Primary Solids Treatment with Dissolved Air Flotation Phil Sparks, Louisiana-Pacific Corp., Speaker Sam C. White, RMT Inc., Speaker John Joyce, Louisiana-Pacific Corp. Anita Doepke, RMT Inc. The Effect of Primary Solids on Activated Sludge Aeration Design W. Wesley Eckenfelder, Jr., AquAe Ter Inc., Speaker	
26 - 1	8:30 am		
26 - 2	9:00 am		

Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/30/2005	8:30:a.m. - 10:00:a.m.	Session: 26	Innovative Waste Water Treatment Opportunities
26 - 3	9:30 am	Thermophilic High-Rate Biological Treatment of Kraft Mill Effluent in a BioFilm-Chip MBBR Process Asa Malmqvist, ANOX AB, Speaker Anders Lofqvist, ANOX AB Ruben Fredrikson, Munksjo Aspa Bruk AB Thomas Welander, PhD, ANOX AB Bengt Lindqvist, Munksjo Aspa Bruk AB	
8/30/2005	8:30:a.m. - 10:00:a.m.	Session: 27	Better Testing and Process Control
		Session Chair Gail E. Sherson, International Paper	
27 - 1	8:30 am	The MorFi Fiber Analyzer, A New Way to Characterize Pulps Joseph J. OLeary, Techpap Inc., Speaker Didier Rech, Techpap Inc.	
27 - 2	9:00 am	A Simple Method for Evaluating and Monitoring Fibre Quality Geoffrey G. Duffy, University of Auckland, Speaker	
27 - 3	9:30 am	New Generation Rotating Consistency Transmitter Matti J. Laitinen, Kajaani Process Measurement Ltd., Speaker	
8/30/2005	8:30:a.m. - 10:00:a.m.	Session: 28	Maintenance & Mill Engineering I
		Session Chair Jerry D. Kahn, JK Consulting	
28 - 1	8:30 am	Energy Conservation and Cost Reduction through Total Productive Maintenance - A Case Study Dilip P. Chandarana, Century Pulp & Paper, Speaker Rameshwar L. Lakhotia, Century Pulp & Paper	
28 - 2	9:00 am	Reliability Focused Asset Management William D. Turner, Jacobs Engineering Group Inc., Speaker	
28 - 3	9:30 am	Elements of a Successful Plant Maintenance Program Jerry D. Kahn, JK Consulting, Speaker	
8/30/2005	8:30:a.m. - 10:00:a.m.	Session: 29	Boiler MACT Tutorial (joint Air Quality/Engineering)
		Session Chair Karin M. Greenacre, RMT Inc.	
29 - 1	8:30 am	Boiler MACT Regulations-An Overview Ashok K. Jain, NCASI, Speaker	
29 - 2	9:00 am	General Provisions Requirements for Boiler MACT Compliance Robert C. Kaufmann, Georgia-Pacific Corporation, Speaker	
29 - 3	9:30 am	The Boiler MACT for the Forest Products Industry: An Engineering Evaluation Protocol Rene Borrel, URS Corporation, Speaker	
8/30/2005	8:30:a.m. - 10:00:a.m.	Session: 30	Developments in Enzyme-Assisted and Polyoxometalate Bleaching
		Session Chair Corina Popovici, Iogen Corporation	
30 - 1	8:30 am	Development and Optimization of Biotechnology Use in the Manufacture of Bleached Chemical Pulps Carine Kuligowski, Centre Technique Du Papier, Speaker Michel Petit-Conil, Centre Technique Du Papier Bernard Brochier, Centre Technique Du Papier Alain Laurent, Centre Technique Du Papier Nicole Garnier, Centre Technique Du Papier	
30 - 2	9:00 am	Effect of pH Control on Xylanase Performance in Kraft Pulp Bleaching Luc Thibault, Iogen Corporation, Speaker David A. MacEachern, Iogen Corporation	
30 - 3	9:30 am	Structural Changes of Residual Lignin of Softwood and Hardwood Kraft Pulp upon Oxidative Treatment with Polyoxometalates Biljana Bujanovic, PhD, University of Wisconsin-Madison, Speaker Richard S. Reiner, USDA Forest Products Lab Sall Ralph, USDA Forest Products Lab Umesh P. Agarwal, USDA Forest Products Lab Rajai H. Atalla, USDA Forest Products Lab	

Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/30/2005	8:30:a.m. - 9:30:a.m.	Session: 31	Residuals Management
		Session Chair	
		Richard K. Lowe, International Paper	
31 - 1	8:30 am	Phosphorus Availability from Land Applied Wastewater Residuals	
		Steve J. Shimek, STS Consultants Ltd., Speaker	
31 - 2	9:00 am	Escanaba Paper Company No. 1 Lagoon Restoration/Geotube Project	
		Dave A. DeVet, P.E., NewPage Corporation, Speaker	
8/30/2005	8:30:a.m. - 10:00:a.m.	Session: 32	Stickies
		Session Chair	
		Carl J. Houtman, USDA Forest Products Lab	
32 - 1	8:30 am	Measurement of Macro and Micro Stickies in 100% OCC Recycle Plant	
		R. Daniel Haynes, Sr., Eka Chemicals Inc., Speaker	
		Jere Koskinen	
		Sujit Banerjee, IPST at Georgia Tech	
32 - 2	9:00 am	Drying Section Deposits: Origin Identification and Influence of the Recycling Processes: Deinking and Packaging Line Comparison	
		Thierry Delagoutte, Centre Technique Du Papier, Speaker	
32 - 3	9:30 am	Flotation of Forward Cleaner Rejects Removes High Density Stickies	
		Robert L. DeJong, 2 Fiber Consulting, Speaker	
8/30/2005	8:30:a.m. - 9:30:a.m.	Session: 33	Black Liquor and ESP Dust Properties
		Session Chair	
		Alarick J. Tavares, Diamond Power	
33 - 1	8:30 am	Comprehensive Time Dependent Black Liquor Single Droplet Experiments and Predictions	
		Dale R. Tree, Brigham Young University, Speaker	
		Elvin Ip, Brigham Young University	
		Larry L. Baxter, Brigham Young University	
33 - 2	9:00 am	Carbon Dioxide Gasification and Carbothermic Reduction of Kraft Black Liquor Char in a Laboratory Char Bed Reactor	
		Adriaan Van Heiningen, University of Maine, Speaker	
		Thomas S. Connolly, University of Maine	
		Edgardo Schwiderke, University of Maine	
33 - 3	9:30 am	Evaluation of the Technique of PDR in order to Analyse the Solubility Cl and SO42	
		Danielle Jaguaribe, Univ. Federal Da Paraiba, Speaker	
8/30/2005	10:30:a.m. - 12:00:p.m.	Session: 34	Tutorial on Recovery System Fouling Mitigation (Joint Pulping Engineering)
		Session Chair	
		Christopher L. Verrill, IPST at Georgia Tech	
34 - 1	10:30 am	Recovery Systems Fouling 101	
		Christopher L. Verrill, IPST at Georgia Tech, Speaker	
		Jim Frederick, IPST at Georgia Tech	
		Honghi Tran, University of Toronto	
34 - 2	11:15 am	Evaporator Fouling Mitigation-Case Studies	
		Nikolai A. DeMartini, IPST at Georgia Tech, Speaker	
		Christopher L. Verrill, IPST at Georgia Tech	
34 - 3	11:45 am	Update on AF & PA Recovery Boiler Program	
		Thomas J. Grant, AF, Speaker	
8/30/2005	10:30:a.m. - 12:00:p.m.	Session: 35	Air/Water
		Session Chair:	
		Reid Miner, NCASI	
35 - 1	10:30 am	Metals Pollution Prevention at Pulp and Paper Mills	
		Jeff Louch, NCASI, Speaker	
35 - 2	11:00 am	Understanding Treatment Plant Odor Issues at Kraft Pulp Mills	
		Paul S. Wiegand, NCASI, Speaker	
35 - 3	11:30 am	Reduction of Odorous Reduced Sulfur Emissions from Kraft Pulp Mills Using Green Liquor Dregs	
		Howard L. Empie, Jr., GeorgiaTech., Speaker	
		Daniel Lane, Degussa Corp.	

Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/30/2005	10:30:a.m. - 11:30:p.m..	Session: 36	Boiler MACT Control Technology (joint Air and Engineering)
		Session Chair	
		Patricia Fleischauer, ENSR International	
36 - 1	10:30 am	Comparing the Various Emission Control Technologies Available for the Industrial Boiler MACT	
		George S. Dowe, Jacobs Engineering Group Inc., Speaker	
36 - 2	11:00 am	Boiler MACT Compliance with New Scrubber Technology, A Case Study	
		Magnus Rundqvist, EnviroCare International, Speaker	
		Kimmo Peltonen, Andritz Inc.	
		Marty A. Duckworth, Gulf States Paper Corporation	
		James Barnett, Longview Fibre Company	
8/30/2005	10:30:a.m. - 12:00:p.m..	Session: 37	Optimizing the Caustic Extraction Stage
		Session Chair	
		Daniel Connell, EKA Chemicals Inc.	
37 - 1	10:30 am	PAPRICYCLE®, A Status Report	
		Wayne Bucher, WB Consulting Inc., Speaker	
		Richard M. Berry, PAPRICAN	
		James T. Wearing, Noram Engineering	
37 - 2	11:00 am	Alkaline Extraction in Elemental Chlorine-Free Bleaching Sequences: A Fundamental Review of Physiochemical and Chemical Reactions, and Their Impact on Bleach Plant Operations	
		Brian N. Brogdon, Kemira Chemicals Inc., Speaker	
		Lucian A. Lucia, North Carolina State University	
37 - 3	11:30 am	Magnesium Hydroxide: An Alternative Chemical for Pulp Bleaching	
		Aileen R. Gibson, Martin Marietta Magnesia Spec., Speaker	
		Mark Wajer, Martin Marietta Magnesia Spec.	
		Paul Schmidtchen, Martin Marietta Magnesia Spec.	
		Tiffany Petrie, Martin Marietta Magnesia Spec.	
8/30/2005	10:30:a.m. - 12:00:p.m..	Session: 38	Residuals Management Committee Meeting
		Session Chair	
		Saul J. Furstein, Georgia-Pacific Corporation	
38 - 1	10:30 am	Thinking Outside the Box	
		Joseph W. Laubenstein, Synagro Technologies Inc., Speaker	
8/30/2005	10:30:a.m. - 12:00:p.m..	Session: 39	Environmental Permitting (Panel)
		Panel Moderator	
		Dale K. Phenicie, Env. Affairs Consulting	
39 - 1	10:30 am	Improving the Environmental Permitting Process	
		Dale K. Phenicie, Env. Affairs Consulting, Speaker	
8/30/2005	10:30:a.m. - 12:00:p.m..	Session: 40	Microstickies (Panel)
		Panel Moderators	
		Carl J. Houtman, USDA Forest Products Lab	
		Mahendra R. Doshi, Progress in Paper Recycling	
		Panelists	
		Richard A. Venditti, Jr., North Carolina State University	
		Thierry Delagoutte, Centre Technique Du Papier	
		Gilles M. Dorris, PAPRICAN	
		R. Daniel Haynes, Sr., Eka Chemicals Inc.	
40 - 1	10:30 am	Panel : Microstickies Concentration Measurement Methods	
8/30/2005	1:30:p.m. - 3:00:p.m..	Session: 41	Multifuel and Maintenance Considerations
		Session Chair	
		Mark A. Sargent, International Paper	
41 - 1	1:30 pm	Innovative Solutions for a Challenging Biomass Fuel and Boiler Upgrade Project.	
		Joseph R. Strempek, Babcock & Wilcox Co., Speaker	
		Aaron J. Rose, Babcock & Wilcox Co.	
		W. Glass, Gulf States Paper Co.	
		Larry A. Hiner, Babcock & Wilcox Co.	



Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/30/2005	1:30:p.m. - 3:00:p.m.	Session: 42	PBT TMDL (Panel)
Panel Moderator Frederick K. Marotte, Mactec Engineering and Consulting			
8/30/2005	1:30:p.m. - 3:00:p.m.	Session: 43	Mill Operations Troubleshooting Issues
Session Chair: Thomas J. McDonough, Consultant			
8/30/2005	1:30:p.m. - 3:00:p.m.	Session: 44	Novel Methods for Upgrading Recycled Fiber (joint session of the Pulping and Bleaching Committee and the Recycled Fiber Committee)
Session Chair R. Daniel Haynes, Sr., Eka Chemicals Inc.			
44 - 1	1:30 pm	"DBI" Bleaching of Recycled Fibers for the Production of Towel and Napkin Grades Goda Rangamannar, Rohm and Haas Company, Speaker	
44 - 2	2:00 pm	Enhancement of Wood Pulps by Cellulase Treatment Daniel L. Michalopoulos, Dyadic International Inc, Speaker	
		Brian Murdoch, Dyadic International, Inc. Maria S. Ware, Dyadic International, Inc.	
44 - 3	2:30 pm	The Comparison of TAED/Peroxide Bleaching on TMP, Kraft and Recycled Fibers Jeffery S. Hsieh, IPST at Georgia, Speaker	
		Jane Mathews John G. Kokoszka, EvCo Research Inc. Chhaya Agrawal Hong Xiang Xu	
8/30/2005	1:30:p.m. - 3:00:p.m.	Session: 45	Air Committee Meeting
Session Chair Karin M. Greenacre, RMT Inc.			
8/30/2005	1:30:p.m. - 3:30:p.m.	Session: 46	Corrosion & Materials Selection
Session Chair: Andrew Garner, Consultant			
46 - 1	1:30 pm	Corrosion of Evaporators Angela Wensley, P.E., Angela Wensley Eng. Inc., Speaker	
		Dave Christie, Canspec Group	
46 - 2	2:00 pm	Erosion Resistance of Infiltration Brazed Tungsten Carbide Cladding Chad Juliot, Conforma Clad Inc, Speaker	
46 - 3	2:30 pm.	ECTFE/FRP Applications in Chlorine Dioxide, Sodium Hypochlorite, Sodium Chlorate, Sodium Hydroxide, sulfuric and Hydrochloric Acids Environments Rafic Moubarac, Experco Composites Inc, Speaker	
		Martin Ouelett, AC Plastiques Canada Inc.	
46 - 4	3:00 pm	Corrosion and Corrosion Prevention of Digesters Operating with Modern Cooking Processes Casimir E.V. Svensson, Savcor LTD, Speaker	
		Martti T. Pulliainen, Savcor Group Ltd. Oy Martti K. Huttunen, Savcor Consulting Inc. Pasi Niemelainen, Savcor Ltda.	
8/30/2005	1:30:p.m. - 5:00:p.m.	Session: 47	Management of Major Capital Projects Around the World
Session Chair Bob Dresser, AMEC			
8/30/2005	1:30:p.m. - 2:30:p.m.	Session: 48	Improving Mill Operations
Session Chair Bruce P. Archibald, International Paper			
48 - 1	1:30 pm	Asymmetrical Washing Liquor Flow Control in Continuous Digester Manne Tervaskanto, University of Oulu, Speaker	
		Timo Ahvenlampi, University of Oulu	
48 - 2	2:00 pm	Observation and Visualization of the Chip Compaction Disturbances in Digester Heidi-Maria Puolakka, University of Oulu, Speaker	
		Manne Tervaskanto, University of Oulu Timo Ahvenlampi, University of Oulu	

Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/30/2005	1:30:p.m. - 3:00:p.m.	Session: 49	Environmental Management Committee Meeting
		Session Chair Dennis Sasseville, Prizim Inc.	
49 - 1	1:30 pm	Applications Of Best Available Technologies (BAT) For Integrated Environmental Management -A Case Study D.P. Chandrana, Century Pulp & Paper, Speaker	
49 - 2	2:15 pm	Is Environmental Management System Implementation an Option? (A Panel Discussion) Robert C. Morse, Bob Morse Inc., Speaker Daniel A. Curry, RMT Inc., Speaker	
8/30/2005	1:30:p.m. - 3:00:p.m.	Session: 50	Recovery Boiler Fouling and Sootblowing
		Session Chair James A. Dickinson, Babcock & Wilcox Company	
50 - 1	1:30 pm	Field Studies on Composition of Carryover Particles in Recovery Boilers Asghar Khalaj-Zadeh, University of Toronto, Speaker Christopher L. Verrill, IPST at Georgia Tech Honghi Tran, University of Toronto David C. S. Kuhn, University of Toronto	
50 - 2	2:00 pm	Mill Trial on Low Pressure Sootblower Performance in a Recovery Boiler Andrei Kaliazine, University of Toronto, Speaker Honghi Tran, University of Toronto Ishaq Jameel, Clyde-Bergemann Inc. Dan C. Mott, Irving Pulp & Paper Ltd. Donald McCabe, Irving Pulp & Paper Ltd. Danny S. Tandra, University of Toronto Donald E. Cormack, University of Toronto	
50 - 3	2:30 pm	An Optimized Recovery Boiler Cleaning System Alarick J. Tavares, Diamond Power, Speaker Jonathan Urbach, Diamond Power	
8/30/2005	3:30:p.m. - 5:00:p.m.	Session: 51	Optimizing ECF Bleaching
		Session Chair Wayne Bucher, WB Consulting Inc.	
51 - 1	3:30 pm	Improving Chlorine Dioxide Bleaching Efficiency by Selecting the Optimal pH Target Peter W. Hart, MeadWestvaco Corporation, Speaker Daniel Connell, EKA Chemicals Inc.	
51 - 2	4:00 pm	Softwood Bleaching Practices in Canada: Analysis of the 2003 PAPTAC Bleaching Committee "Best Practices" Survey Douglas C. Pryke, Consultant, Speaker Paul F. Earl, Paul Earl Consulting Inc.	
51 - 3	4:30 pm	Adoption of Chloroform Certification in Lieu of Bleach Plant Effluent Monitoring - A Status Report Paul S. Wiegand, NCASI, Speaker	
8/30/2005	3:30:p.m. - 5:00:p.m.	Session: 52	Air Fair
		Session Chair Carole J. Stapper, URS Corporation Stephen E. Huza, Four Some Plus Technologies	
8/30/2005	3:30:p.m. - 5:30:p.m.	Session: 53	Recovery Boiler Materials Performance
		Session Chair Margaret E. Gorog, Weyerhaeuser Company	
53 - 1	3:30 pm	Metallurgical Characteristics and Performance Experience of Unifuse Overlay Tubes in Black Liquor Recovery Boilers George Y. Lai, Corrosion and Metallurgical Consulting, Speaker Angela Wensley, P.E., Angela Wensley Eng. Inc.	
53 - 2	4:00 pm	Investigation Of A Superheater Tube Cracking Problem James R. Keiser, Oak Ridge National Laboratory, Speaker Gorti B. Sarma, Oak Ridge National Laboratory Douglas L. Singbeil, PAPRICAN Francois R. Jette, P.E., Domtar Inc. Kimberly Choudhury, Oak Ridge National Laboratory	

Engineering, Pulping, Environmental Conference - Preliminary Program Schedule

8/30/2005 3:30:p.m. - 5:00:p.m. Session: 53 Recovery Boiler Materials Performance

- 53 - 3 4:30 pm **Minimizing the Impact of Stress Assisted Corrosion in Paper Mill Boilers**
Norris N. Johnston, Hercules Pulp & Paper Division, Speaker
Mark A. Sargent, International Paper
Mel J. Esmacher, GE Water and Process Tech.
- 53 - 4 5:00 pm **Modeling of Recovery Boiler Tube Wall Panels to Investigate the Effect of Attachment Plates on Waterside Corrosion**
Gorti B. Sarma, Oak Ridge National Laboratory, Speaker
Steven J. Pawel, Oak Ridge National Laboratory
Preet M. Singh, IPST at Georgia Tech

8/30/2005 3:30:p.m. - 5:00:p.m. Session: 54 Improving Heat Transfer and Heat Recovery

- Session Chair
James A. Dickinson, Babcock & Wilcox Company
- 54 - 1 3:30 pm **Deaerator Vent Recovery Case Study**
- 54 - 2 4:00 pm **Reducing Mill Energy Costs with Compact Heat Exchangers and Condensers**
Peter S. Tran, Alfa Laval Inc, Speaker
Sheldon Young, Alfa Laval Inc.
- 54 - 3 4:30 pm **The Economics of Direct Steam Injection**
Bruce Cincotta, Hydro-Thermal Corporation, Speaker

8/30/2005 3:30:p.m. - 5:00:p.m. Session: 55 Environmental New Technology Showcase

- 55 - 1 3:30 pm **Oxycair Solution: New and Unique Technology for Pulp & Paper Secondary Sludge Management**
Daniel Gagnon, PhD, Whaddon Water Management, Speaker
- 55 - 2 3:40 pm **SBR System Treats Integrated Paper Mill Wastewater in China**
Albert A. Cocci, ADI Systems Inc., Speaker
- 55 - 3 3:50 pm **Pilot Trials on "Filterdynamic™" Technology for Ultra Clarification of Whitewater for Reuse in Place of Fresh Water**
Michael Fawdry, Jannanco, Speaker
Francis Miller, Jannanco, Speaker
- 55 - 4 4:00 pm **Geotube® used to contain P&P Waste**
Glenn M. Lundin, Ten Cate Nicolon MiraTech Div, Speaker
- 55 - 5 4:10 pm **Geotextile Tube Technology is Environmentally and Economically a Success**
Glenn M. Lundin, Ten Cate Nicolon MiraTech Div, Speaker
- 55 - 6 4:20 pm **New Probe and Measurement Technologies for TRS Monitoring**
John Kelly, Environmental Systems Corp.
- 55 - 7 4:30 pm **Roadmap to Compliance - Lessons Learned by Industrial Sources Complying with the NOx SIP Call**
Rudi Muenster, VIM Technologies Inc., Speaker

8/30/2005 3:30:p.m. - 5:30:p.m. Session: 56 Fiber Raw Materials

- Session Chair:
William Fuller, FRM Consulting
- 56 - 1 3:30 pm **Poplar Breeding for Superior Papermaking Fibers**
Samar K. Bose, State University of New York, Speaker
Raymond C. Francis, Empire State Paper Res. Inst., Speaker
Soo-Jeong Shin, SUNY-ESF
Alton Brown, SUNY-ESF
Don Riemenschneider, US Forest Service
Robert Hanna, SUNY-ESF
- 56 - 2 4:00 pm **Hybrid Poplar Plantations for the North American Pulp and Paper Industry - History and Future Outlook**
Brian Stanton, GreenWood Resources, Speaker
- 56 - 3 4:30 pm **The Hardwood Fiber Demand & Supply Situation: Globalization & Structural Change**
Peter J. Ince, USDA Forest Products Lab, Speaker
- 56 - 4 5:00 pm **Technological Characterization of the New Generation of Eucalyptus Clones in Brazil for Kraft Pulp Production**
Jose L. Gomide, Federal University of Vicosa, Speaker
Jorge L. Colodette, Federal University of Vicosa
Rubens de Oliveria, Federal University of Vicosa
Claudio Mudado Silva, Federal University of Vicosa

Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/30/2005 3:30:p.m. - 5:00:p.m. Session: 57 Recycled Fiber Committee

Wednesday, August 31

8/31/2005 7:00:a.m. - 8:30:a.m. Session: 58 Hot Topic Breakfast

8/31/2005 8:30:a.m. - 10:00:a.m. Session: 59 Water Quality Committee Wet Testing

Session Chair

J. David Dean, ENTRIX
Paul Wiegand, NCASI, Speaker
Jim Pletl Hampton Roads Sanitation District, Speaker

8/31/2005 8:30:a.m. - 10:00:a.m. Session: 60 More Effective Enzyme - Assisted Bleaching

Session Chair

Wei Wang, Potlatch Corporation

60 - 1 8:30 am **Specificity of Kraft Pulp Bleaching With Xylanase - A Key Factor in Cost Benefit Analysis**

Michael G. Paice, PAPRICAN, Speaker

Richard M. Berry, PAPRICAN

Robert Bourbonnais, Videotron

Sophie Labonte, Videotron

Sylvie Renaud, Videotron

60 - 2 9:00 am **Bleach Cost Reduction with Xylanase Assisted Extraction Stage**

Corina Popovici, Iogen Corporation, Speaker

J. Mark A. Hoddenbagh, PhD, Iogen Corporation

60 - 3 9:30 am **Discovery and Development of Advanced Enzyme Products to Meet the Needs of the Pulp and Paper Industry**

Charles W. Hancock, Diversa Corporation, Speaker

8/31/2005 8:30:a.m. - 10:00:a.m. Session: 61 Advances in Liquor Preparation

Session Chair

Calvin Clark, BE&K, Inc.

61 - 1 8:30 am **Recent Advances in the Commercialization of NIR (near-infrared) Based Analyzers in the Pulping and Recovery Area**

Russell Hodges, Auburn University, Speaker

Gopal A. Krishnagopalan, Auburn University

Phillip Woodrow, R. E. Hodges LLC

Roy Lightle,

61 - 2 9:00 am **Alkali Concentration Control With a New Modular Flow Through Conductivity Sensor**

Dave Joseph, Emerson Process Management, Speaker

8/31/2005 8:30:a.m. - 10:00:a.m. Session: 62 Maintenance & Mill Engineering II

Session Chair

Jerry D. Kahn, JK Consulting

62 - 1 8:30 am **Fluid Structure Interaction in Power House Part I: Fluid Elastic Instability**

Zia Abdullah, Weyerhaeuser Company, Speaker

Paul Feenstra, McMaster University

J. Peter Gorog, Weyerhaeuser Company

David Weaver, McMaster University

62 - 2 9:00 am **Fluid Structure Interaction in Power House Part II: Thermo Acoustic Vibration**

Zia Abdullah, Weyerhaeuser Company, Speaker

David Weaver, McMaster University

62 - 3 9:30 am **Positive Displacement Reservoir Breathers: An Active Method of Removing Moisture from Hydraulic Fluids**

David S. Kolstad, Porous Media, Speaker

Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/31/2005		8:30:a.m. - 10:00:a.m.	Session: 63	External and Internal Factors in Gasification
		<u>Session Chair</u>		
		Andrew K. Jones, International Paper		
63 - 1	8:30 am	Economics of Integrating Black Liquor Gasification with Pulping: Part II - Effects of Yield Increases from Modified Pulping and an Improved Process Model		
		Mathias Lindstrom, North Carolina State University, Speaker		
		Hasan Jameel, North Carolina State University		
		Adrianna G. Kirkman, North Carolina State University		
63 - 2	9:00 am	Black Liquor Gasification at Norampac: An Update		
		Eric J. Connor, Thermochem Recovery Intl., Speaker		
		Robert S. Rowbottom, Norampac		
		Dave G. Newport, Thermochem Recovery Intl.		
63 - 3	9:30 am	Kinetics of the Direct Causticizing Reaction Between Black Liquor and Titanates During Low Temperature Gasification		
		Adriaan Van Heiningen, University of Maine, Speaker		
		Edgardo Schwiderke, University of Maine		
		Xiaowen Chen, University of Maine		
8/31/2005		8:30:a.m. - 10:00:a.m.	Session: 64	Best Practices: A Tool to Reduce Energy Costs Immediately (sponsored by Agenda 2020, Focus on Energy and Center for Technology Transfer)
		<u>Panel Moderator</u>		
		Masood Akhtar, Center for Technology Transfer		
64 - 1	8:30 am	Need Analysis		
		David V. Borowski, Consultant, Speaker		
64 - 2	9:00 am	Bench Marking		
		David E Null, Jaako Poyry Consulting, Speaker		
64 - 3	9:30 am	Use Best Practices & Bench Marking to Drive Energy Out		
		Benjamin A. Thorp, Consultant, Speaker		
		Adriaan Van Heiningen, University of Maine, Speaker		
		Edgardo Schwiderke, University of Maine		
		Xiaowen Chen, University of Maine		
8/31/2005		8:30:a.m. - 10:00:a.m.	Session: 65	Environmental Considerations for Firing Alternative Fuels (Joint Environmental/Engineering)
		<u>Session Chair</u>		
		Cara J. Kurtenbach, Wausau Paper		
65 - 1	8:30 am	Achieving Industrial Boiler MACT Compliance with Different Fuel Choices		
		Randy Lombardi, Babcock & Wilcox, Speaker		
		Sam Kumar, Babcock & Wilcox		
65 - 2	9:00 am	Investigations into the Variability in and Control of Dioxins Formation and Emissions from Coastal Power Boilers		
		Vic C. Uloth, PAPRICAN, Speaker		
		Doreen Mann, USDA Forest Prod. Labs		
		Karen Scallon, USDA Forest Prod. Labs		
		Eric Horn, BioPulping International		
		Louis L. Edwards, University of Idaho		
65 - 3	9:30 am	Environmental Considerations Related to Firing Petroleum Coke in Lime Kilns		
		Bill McPherson, DTE Energy Services, Speaker		
8/31/2005		8:30:a.m. - 10:00:a.m.	Session: 66	Deinking
		<u>Session Chair</u>		
		Richard A. Venditti, Jr., North Carolina State University		
66 - 1	8:30 am	New Pulping Strategy		
		Gerard Galland, Centre Technique Du Papier, Speaker		
		Benjamin Fabry, Centre Technique Du Papier		
66 - 2	9:00 am	Operational Results of Neutral Deinking for Old Newsprint		
		R. Daniel Haynes, Sr., Eka Chemicals Inc., Speaker		
66 - 3	9:30 am	Flotation Deinking of Recycled Paper Aided by Electric Field		
		Jeffery S. Hsieh, Akpojotor shemi, IPST at Georgia Tech, Speaker		

Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/31/2005		10:30:a.m. - 12:00:p.m.	Session: 67	Controlling Process Variability
		<u>Session Chair</u>		
		Gopal A. Krishnagopalan, Auburn University		
67 - 1	10:30 am	Optimal Kappa Cooking - a Versatile Tool to Improve Both Cost and Fiber Quality Performance of a Bleached Kraft Mill		
		Daniel Connell, EKA Chemicals Inc., Speaker		
		AnnBritt Forsstrom, EKA Chemicals AB		
		Jiri J. Basta, EKA Chemicals AB		
		Douglas W. Reid, EKA Chemicals Inc.		
67 - 2	11:00 am	On the Relationship Between Pulping Temperature and Kraft Pulp Kappa Uniformity at the Single Fiber Level		
		Richard R. Gustafson, University Of Washington, Speaker		
67 - 3	11:30 am	Process Variability: Laboratory Testing vs. On-line Measurement		
		Alison C. Rowat, Metso Automation USA Inc., Speaker		
		Sean M. Smith, Gulf States Paper		
8/31/2005		10:30:a.m. - 12:00:p.m.	Session: 68	Breakthrough Technologies: A Tool for Substantial Economic Impact (sponsored by Agenda 2020 Focus on Energy and Center for Technology Transfer)
		<u>Session Chair</u>		
		David B. Turpin, MeadWestvaco Corporation		
68 - 1	10:30 am	Black Liquor Gasification		
		Daniel A. Burciaga, ThermoChem Rec. Int'l Inc., Speaker		
68 - 2	10:50 am	Engineered Fillers		
		Vijay K. Mathur, G. R. International, Speaker		
68 - 3	11:10 am	Autocausticizing		
		Saied Kochesfahani, U. S. Borax Inc., Speaker		
68 - 4	11:30 am	MSSAQ (Mini Sulfide/Sulfite with AQ)		
		Hasan Jameel, North Carolina State Univ., Speaker		
8/31/2005		10:30:a.m. - 12:00:p.m.	Session: 69	Developments in Causticizing
		<u>Session Chair</u>		
		Michael H. Schofield, Hercules Inc.		
69 - 1	10:30 am	Partial Borate Autocausticising Technology - Mill Trial Experiences		
		Murray J. Ellis, Carter Holt Harvey, Speaker		
69 - 2	11:00 am	Correlation between Nodule Size and Residual Carbonate Content in Lime Kilns		
		Honghi Tran, University of Toronto, Speaker		
		Mike Gauthier, DMI Peace River Pulp		
		Shawn Vollicks, Domtar Inc.		
69 - 3	11:30 am	Treatment of Lime Slaker Grit and Green Liquor Dregs - Current Practice		
		Dale R. Sanchez, Vector Process Equipment Inc., Speaker		
		Honghi Tran, University of Toronto		
8/31/2005		10:30:a.m. - 12:00:p.m.	Session: 70	Oxidative Delignification for Improved Fiber Properties
		<u>Session Chair</u>		
		Brian N. Brogdon, Kemira Chemicals Inc.		
70 - 1	10:30 am	Medium Consistency Oxygen Delignification Performed with a Hydro Dynamics Controlled Cavitation Reactor		
		Douglas Mancosky, Hydro Dynamics Inc., Speaker		
		George Adusei, BOC Group		
		Daniel A Armstead, Hydro Dynamics Inc.		
		Peter W. Hart, MeadWestvaco Corporation		
		Robert A. Rossi, BOC Gases		
70 - 2	11:00 am	Fiber Chemical Modification by Selective Catalytic Oxidation During One-stage Oxygen Delignification		
		Dongcheng Zhang, IPST at Georgia Tech, Speaker		
		Arthur J. Ragauskas, IPST at Georgia Tech, Speaker		
70 - 3	11:30 am	The Influence of Kraft Cooking Conditions on Fiber Charge of the Flowing Peroxide Bleaching		
		Zheng Dang, IPST at Georgia Tech, Speaker		
		Arthur J. Ragauskas, IPST at Georgia Tech, Speaker		

Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/31/2005 10:30:a.m. - 12:00:p.m. Session: 71 Sorting the Recycled Fibers

Session Chair

Terry L. Bliss, Process Consultants Inc.

71 - 1 10:30 am **OCC Pulp Quality Improvement at Simpson-Tacoma Kraft Company**

John Hunt, Simpson Tacoma Kraft Company, Speaker

Kae W. Lee, Simpson Tacoma Kraft Company

Gregory J. Reiser, Simpson Tacoma Kraft Company

Kenneth A. Coffey, J & L Fiber Services

71 - 2 11:00 am **Development of a Bending Stiffness Sensor for the Automated Sorting of Recovered Paper**

Richard A. Venditti, Jr., North Carolina State University, Speaker

M. K. Ramasubramanian, North Carolina State University

Kalyan C. Katuri, North Carolina State University

71 - 3 11:30 am **Effect of Fiber Fractionation on Sheet Properties and Drying Behavior**

Hussam Alkhasawneh, Western Michigan University, Speaker

John H. Cameron, Western Michigan University

8/31/2005 10:30:a.m. - 12:30:p.m. Session: 72 Boiler NOx Issues

Session Chair

Ashok K. Jain, NCASI

72 - 1 10:30 am **Site-Specific NOx Permit Limit for Burning SOG in a Power Boiler**

Philip K. Smith, Weyerhaeuser Company, Speaker

Jerry F. Coker, Weyerhaeuser Company

72 - 2 11:00 am **NOx Reduction in Coal-Fired Boilers Using Existing Equipment**

Frank Fowler, RMT Inc, Speaker

Andrew M. Redmond, Weyerhaeuser Company

George Lala, RMT Inc.

Hani Gadalla, RMT Inc.

72 - 3 11:30 am **Impacts of Low-NOx Conversion in 4 Coal-Fired Boilers**

Robert E. Wilson, Bowater Newsprint Division, Speaker

Tim McNay, Combustion Solutions Inc.

72 - 4 12:00 pm **Nitrogen Oxide Emissions from Pulp Mills**

Esa K. Vakkilainen, Jaakko Poyry Oy, Speaker

Kristiina Iisa, Chalmers Univ. of Technology

Markku J. Pekkanen, Jaakko Poyry Oy

8/31/2005 10:30:a.m. - 11:30:p.m. Session: 73 BL Gasifier Materials

Session Chair

Andrew K. Jones, International Paper

73 - 1 10:30 am **Materials Issues In Black Liquor Steam Reforming/Gasification**

James R. Keiser, Oak Ridge National Laboratory, Speaker

Robert DeCarrera, Georgia-Pacific Corporation

Bob Rowbottom, Norampac

Peter Tortorelli, Oak Ridge National Laboratory

Bruce Pint, Oak Ridge National Laboratory

73 - 2 11:00 am **Affect of Impurities on Sintering in Sodium Carbonate and Sodium Sulfate Fluidized Beds**

David M. Dunaway, Brigham Young University, Speaker

Larry L. Baxter, Brigham Young University

Dale R. Tree, Brigham Young University

8/31/2005 10:30:a.m. - 12:00:p.m. Session: 74 Energy Economics Tutorial

Session Chair

Paul M. Tucker, International Paper

Speaker

Theodora Retsina, American Process Inc.

Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/31/2005		1:30:p.m. - 3:00:p.m.	Session: 75	Developments in Modified Cooking
		Session Chair		
		Gopal C. Goyal, International Paper		
75 - 1	1:30 pm	Bleached Hardwood Pulps by the Soda/AQ and MAQ Processes		
		Raymond C. Francis, Empire State Paper Res. Inst., Speaker		
		Samar Bose, SUNY-ESF		
		Nam H Shin, Andritz Inc.		
		Alton Brown, SUNY-ESF		
		S.Omori, SUNY - ESF		
75 - 2	2:00 pm	Wood Components Degradation in Superbatch and Conventional Kraft Cooking of Pinus taeda		
		Francides Gomes Silva, University of Sao Paulo, Speaker		
		Fernando Vasconcelos, University of Sao Paulo		
75 - 3	2:30 pm	Effects of Pulp Yield and Properties Using Modified Pulping Procedures Involving Addition Polysulfide and Anthraquinone		
		Mathias Lindstrom, North Carolina State University, Speaker		
		Hasan Jameel, North Carolina State University		
		Ved Naithani, North Carolina State University		
		Adrianna G. Kirkman, North Carolina State University		
8/31/2005		1:30:p.m. - 3:00:p.m.	Session: 76	Forest Biorefinery: A More Compelling and Profitable Business Model (sponsored by Agenda 2020, Focus on Energy and Center for Technology Transfer)
		Panel Moderator		
		Benjamin A. Thorp, Consultant		
76 - 1	1:30 pm	Extracting Value Prior to Pulping		
		Thomas E. Amidon, SUNY College Of Forestry, Speaker		
76 - 2	1:50 pm	New Value from Residues and Spent Liquor		
		Ryan Katofsky, Navigart Consulting, Speaker		
		Jim Frederick, IPST at Georgia Tech, Speaker		
76 - 3	2:10 pm	Partnering Opportunities		
		Lori A. Perine, American Forest & Paper Assn, Speaker		
76 - 4	2:30 pm	Driving Advances in the Pulp and Paper Space through Third Party Collaboration		
		Michael J. McMahon, Johnson Controls, Speaker		
8/31/2005		1:30:p.m. - 3:00:p.m.	Session: 77	Bill Babbington Maintenance Roundtable
		Roundtable Moderator		
		Jerry D. Kahn, JK Consulting		
8/31/2005		1:30:p.m. - 2:30:p.m.	Session: 78	Safety
78 - 1	1:30 pm	Dust Explosions in the Pulp and Paper Industry		
		Timothy J. Myers, Exponent Failure Analysis Associates, Speaker		
78 - 2	2:00 pm	NFPA 70Em Updated, Electrical Arc Flash		
		Jack Bouton Hirschmann, Jr., Oberon Company, Speaker		
8/31/2005		1:30:p.m. - 3:00:p.m.	Session: 79	Advances in Ozone Delignification for ECF Sequences
		Session Chair		
		Peter W. Hart, MeadWestvaco Corporation		
79 - 1	1:30 pm	Eucalyptus Kraft Pulp Bleaching : State-of-the-art and New Developments		
		Jorge L. Colodette, Federal University of Vicosa, Speaker		
		Ann Honor Munteer, Federal University of Vicosa		
		C.M. Gomes, Federal University of Vicosa		
		M.S. Rabelo, Federal University of Vicosa		
		Katia M. Eiras, Federal University of Vicosa		

Engineering, Pulping, Environmental Conference - Preliminary Technical Program Schedule

8/29/2005	3:30:p.m. - 5:00:p.m.	Session: 19	Climate Change (Panel)
79 - 2	2:00 pm	HW Bleach Plant Experiences and Alternatives Janne Vehmaa, Andritz-Ahlstrom Corporation, Speaker Olavi E. Pikka, Andritz Oy	
79 - 3	2:30 pm	Modern Bleaching with Powerful Ozone Bleaching Solveig Norden, Metso Paper Sundsvall AB, Speaker Maria Anna Wennerstrom, Metso Paper Sundsvall AB Sara Eriksson, Metso Paper	
8/31/2005	1:30:p.m. - 3:00:p.m.	Session: 80	Recovery Boiler Composite Tube Cracking
		Session Chair Craig Reid, Bacon Donaldson Consulting Eng	
80 - 1	1:30 pm	Diagnosis of Conditions Contributing to High Fireside Temperatures and Cracking of Primary Air Port Tubes In Kraft Recovery Boilers Laurie A. Frederick, PAPRICAN, Speaker Joseph R. Kish, PAPRICAN Douglas L. Singbeil, PAPRICAN	
80 - 2	2:00 pm	Reducing Primary Air Port Composite Tube Cracking In A Kraft Recovery Boiler Through Changes In Operation Joseph R. Kish, PAPRICAN, Speaker Laurie A. Frederick, PAPRICAN James R. Keiser, Oak Ridge National Laboratory Ibrahim Karidio, PAPRICAN Douglas L. Singbeil, PAPRICAN Kim Choudhury, Oak Ridge National Laboratory Francois R. Jette, P.E., Domtar Inc.	
80 - 3	2:30 pm	Heat Transfer Considerations in Tube Temperature Excursions in Recovery Boilers Thomas M. Grace, T. M. Grace Company Inc., Speaker Honghi Tran, University of Toronto	



Hot Topics Continental Breakfasts

Tuesday (Session 24) & Wednesday (Session 58)
from 7:00 - 8:30 am

Join fellow conference attendees for FREE continental breakfasts and stimulating discussion in a roundtable format. Hot Topics will focus on current technical issues. These free continental breakfasts and discerning hot topics will be open to all conference attendees. In early August, a list of hot topics will be emailed to all preregistrants. Each registrant will be able to sign up ahead of time for topics of his/her choice, however, sign up boards will be posted on site for late registrants. Each topic will be hosted by a facilitator who is a leading expert in the subject matter.

Schedule of Events

Sunday, August 28	
7:30 am - 9:00 am	Pulp Manufacture Division Steering Committee
8:00 am - 7:00 pm	Conference Registration
8:30 am - 4:00 pm	Session 1: Biological Wastewater Workshop (supplemental registration fee required - see Reg Form)
9:00 am - 5:00 pm	Session 2: Bleach Plant Workshop (supplemental registration fee required - see Registration Form)
9:00 am - Noon	Pulp Manufacture Division Council
12:00 noon - 2:00 pm	Joint Team Review of Conference Logistics
2:00 pm - 5:00 pm	Engineering Division Council
2:30 pm - 4:00 pm	Session 3: Enzymes at Work: An Introduction of Enzyme Technologies for Forest Product Industry
3:00 pm - 4:30 pm	Environmental Division Council
4:00 pm - 6:00 pm	Session 4: Global Paper Recycling Research Trends and Needs
6:00 pm - 7:00 pm	Welcome Ice Breaker
7:00 pm - 9:30 pm	Environmental Division Award Winners Dinner (by invitation only)
7:00 pm - 9:30 pm	Engineering Division Award Winners and Officers Recognition Dinner (by invitation only)
7:00 pm - 9:30 pm	Pulp Manufacture Division Award Winners Dinner (by invitation only)
Monday, August 29	
7:00 am - 7:30 pm	Conference Registration
7:00 am - 8:15 am	Speakers Breakfast (Monday Speakers Only)
8:30 am - 10:00 am	Session 5 - Opening Session/Awards Keynote Speaker - to be announced
8:30 am - 11:30 am	Accompanying Family/Guest Continental Breakfast and from 9:00 - 10:00 am - "Welcome to Philadelphia"
10:00 am - 10:30 am	Coffee Break
10:30 am - Noon	Technical Sessions #6-#10
11:30 am - 4:30 pm	Optional Family/Guest Tour - Historic Rittenhouse Town Tour
1:30 pm - 3:00 pm	Technical Sessions #11-#16
3:00 pm - 3:30 pm	Coffee Break
3:30 pm - 5:00 pm	Technical Sessions #17-#23
5:30 pm - 7:30 pm	Table Top Reception I
Tuesday, August 30	
6:30 am - 8:00 am	23rd Annual PaperChase 5K (organized by BE&K)
7:00 am - 7:30 pm	Conference Registration
7:00 am - 8:15 am	Speakers Breakfast (Tuesday Speakers only)
7:00 am - 8:30 am	Hot Topics Breakfast (Session 24)
8:30 am - 10:30 am	Accompanying Family/Guest Continental Breakfast
8:30 am - 10:00 am	Technical Sessions #25-#33
9:00 am - 5:00 pm	Optional Family/Guest Tour - Longwood Gardens and Brandywine River Museum
10:00 am - 10:30 am	Coffee Break
10:30 am - Noon	Technical Sessions #34-#40
Noon - 1:30 pm	Engineering Division Committee of Chairs
1:30 pm - 3:00 pm	Technical Sessions #41-#50 (note: Session 47 is from 1:30 - 5:00pm)
3:00 pm - 3:30 pm	Coffee Break
3:30 pm - 5:00 pm	Technical Sessions #51-#57
5:30 pm - 7:30 pm	Table Top Reception II
5:30 pm - 6:30 pm	Technical Program Committee Reception
Wednesday, August 31	
7:00 am - 3:00 pm	Conference Registration
7:00 am - 8:15 am	Speakers Breakfast (Wednesday Speakers only)
7:00 am - 8:30 am	Hot Topics Breakfast (Session #58)
8:30 am - 11:00 am	Accompanying Family/Guest Continental Breakfast and from 9:30 am - 11:00 am: "Incredible Edibles"
8:30 am - 10:00 am	Technical Sessions #59-#66
10:00 am - 10:30 am	Coffee Break
10:30 am - Noon	Technical Sessions #67-#74 (note: Session 72 is from 10:30 - 12:30)
12:00 noon - 1:30 pm	2006 Conference Technical Program Planning Committee
1:30 pm - 3:00 pm	Technical Sessions #75-#80 (note: Session 76 is from 1:30 - 3:00)
3:15 pm - 4:30 pm	Conference Critique Committee
4:30 pm - 5:00 pm	Engineering Division Council Wrap-up

Please note that the technical committee meeting schedule will be posted on the conference web site at www.tappi.org/05epe. Committee chairs are in the process of being contacted for committee meeting schedules.



Family/Guest PROGRAM Sunday, August 28th through Wednesday, August 31st, 2005

Come Join the Fun!

We are really excited about our program this year!

Philadelphia is a major part of American History where respect for history and a flourishing present combine to create unique urban neighborhoods whose material landscapes reflect every period of the nation's growth since before it was founded.

Why should you register for the Guest/Spouse Program you ask?

- Because it's a great place to meet new friends
- Receptions: "Welcome Reception" Sunday 6:00-7:00 p.m. (Cash Bar Beer/Wine), Table Top Reception Monday 5:30-7:30 p.m. (Hosted Bar), Table Top Reception Tuesday 5:30-7:30 p.m. (Cash Bar Beer/Wine)
- Continental Breakfast Monday, Tuesday and Wednesday
- "Welcome to Philly Presentation" Monday morning, A surprise Welcome from a notable Philadelphia Icon who will be stopping by at approximately 8:45 a.m.
- Optional Planned Tours on Monday and Tuesday
(Optional Tour Fee Includes: Guides, Admissions/Fees, Taxes and Transportation)
- "Incredible Edibles", Wednesday with Charlotte Ann Albertson
Charlotte, a national food consultant, has her own cooking school in suburban Philadelphia.

Traditional My Home Town Gift Exchange

On Monday, August 29th, we invite all Guest/Spouse Program registrants to participate in the exchange. In the years past it has become a tradition to bring a small gift from your home City, State to exchange with another Guest/Spouse. This is a great opportunity to share and learn about our fellow TAPPI families.

Special Offer for TAPPI Members who would like to join Guest/Spouse for Continental Breakfast \$ 10.00 each day.

Take advantage of Early Bird Fees Pre-Register on or before Friday August 12th and SAVE!

Guest/Spouse Program Registration

Adults (18 and older) \$ 50.00

Children (Ages 6-17) \$20.00

After August 12th/On Site Registration (Adults \$70.00, Children \$30.00)

Package Registration

(Includes: Guest/Spouse Program Registration and All Optional Planned Tours)

Adults (18 and older) \$ 175.00

Children (Ages 6-17) \$ 140.00

After August 12th/On Site Registration (Adults \$200.00, Children \$165.00)

Historic Rittenhouse Town Tour with Showcase Philadelphia

Monday, August 29th, 2005 Fee \$ 55.00
11:30pm - 4:30pm
(minimum attendance - 20; maximum 35)

Located a short ride from downtown Philadelphia, in Fairmount Park, one of the largest in-city parks in the world, is Historic Rittenhouse Town. This collection of 7 buildings, dating from the early 1700's to the end of the 19th century, is like walking into history.

The area was settled by America's first papermaker, a Mennonite minister, Wilhem Rittenhausen. The town eventually flourished and grew to include more than forty buildings of all types. Today the seven remaining buildings give a glimpse of what life in an early American industrial village was like. Includes complete tour, exclusive papermaking demonstration, and hands on opportunity to make your own souvenirs!

After Historic Rittenhouse we enjoy an overview of the city as our professional guide acquaints us with the history of Philadelphia. You will exult in 300 years of American architecture, from Rittenhouse Square to the Franklin Parkway, just as the 30 successive generations that deemed Philadelphia "the" place to live.



Longwood Gardens and Brandywine River Museum

Tuesday, August 30th, 2005 Fee \$68.00
9am to 5pm
(minimum attendance - 40; maximum 45)

Another offering of the historic du Pont family is this most prized of formal gardens at Longwood. one of the premier gardens in the world, the site boasts an exquisite formal English garden set below a gigantic conservatory.

The three-acre conservatory boasts an outstanding French garden as well as a sumptuous cactus exhibit, an entire room filled with orchids of every size and description, rose rooms and incredible topiaries that change with the seasons.

Then on to the Brandywine River Museum. A notable architectural restoration, the museum is set in a restored nineteenth-century gristmill on the banks of the Brandywine River and serves as home to many of the works of three generations of Wyeth painters.

Cost includes deluxe round-trip transportation, admissions, taxes, the services of a professional Showcase guide and a voucher for luncheon in the Longwood cafeteria just across from the conservatory where guests will enjoy a choice of light lunch options with a beverage.

"Incredible Edibles" By Charlotte Ann Albertson

Wednesday, August 31st, 2005
Included with Registration Fee
9:30am to 11:00am

Food has become a national pastime in America. No one is as enthusiastic about sharing her knowledge of it as Charlotte Ann Albertson. Head of her own cooking school in suburban Philadelphia since 1973 and a national food consultant, she entertains both large and small gatherings, from church and community groups to national conventions, with ease. Charlotte Ann will demonstrate creative fruit and vegetable centerpieces including vegetable bouquets, zucchini boats and acorn squash soup tureens.

Charlotte offers a "cooking program" that requires no stove, sink, or cooking facilities whatever! Charlotte Ann creates extremely attractive centerpieces for buffet or table that are 100% edible.



► PaperChase Run

BE&K, Inc. is organizing the 23rd Edition of PaperChase at the 2005 TAPPI Engineering, Pulping, Environmental Conference. The PaperChase will feature a 5k run/1.5 mile walk. Prizes will be given for recognition of achievement for 1st, 2nd, and 3rd Place in both the 5k Run/Men and 5k Run/Women. Children may participate at no charge, however, for those who want a T-shirt, a donation is suggested.

The entry fee is a minimum donation of \$20. Proceeds from the PaperChase are donated to endowed scholarships at regional schools.

The PaperChase is scheduled for 7 a.m., Tuesday, August 30. Participants are to meet in the Philadelphia Marriott lobby.

Name: **Title:**
Company: **Telephone:**
Address:
City: **State:** **Zip:**

Yes, sign me up for the PaperChase, August 30, 2005: My Check for \$
(Minimum donation is \$20), payable to BE&K, Inc. is enclosed.

My T-Shirt size is ☐ Large ☐ X-Large ☐ XX-Large

I will participate in the: ☐ 5k Run/Men ☐ 5k Run/Women ☐ 1.5 mile Walk

No, I cannot attend the PaperChase but I have enclosed my check for \$
(Minimum donation is \$20), payable to BE&K, Inc.

My T-Shirt size is ☐ Large ☐ X-Large ☐ XX-Large

In consideration of the acceptance of my entry, I do hereby waive and release any rights and claims for damage I may have against all sponsors of the PaperChase Fun Run.

Signature: **Date:**

If your company would like to become one of those many companies who have joined in the tradition of sponsoring the PaperChase, please contact Bo Gilbert 205-972-6303 (gilbertbo@bek.com) or Elaine White at 205-972-6619.

Please submit registrations to Bo Gilbert.
Mail - BE&K, Inc., 2000 International Park Drive,
Birmingham, AL 35243
Email - gilbertbo@bek.com
Fax - 205-972-6807
In person on Monday, August 29, at the conference.



HOTEL & TRAVEL INFORMATION

August 25 - September 2

► Venue for all Conference Events

Philadelphia Marriott Downtown

1201 Market Street
Philadelphia, PA 19107

TAPPI has blocked 269 guest rooms at the Philadelphia Marriott Downtown. In order for TAPPI to get credit for rooms booked and to avoid performance damages, please make your reservation as follows:

- Contact for Reservations: toll free 1-800-228-9290 (please inform the agent the conference is at the Philadelphia Marriott Downtown and the event is TAPPI Engineering, Pulping, Environmental Conference).
- Book your accommodations at the following customized web site <http://www.stayatmarriott.com/TAPPI/>
- Rate - Single - \$139 + tax (1 person) or Double - \$159 (2 people). Please contact the hotel directly for information about suites at 215-625-6139.
- Cutoff date for reservations at the TAPPI rate is August 4, 2005.

► Delta Air Lines - TAPPI's Official Airline for Conferences, Meetings and Events

THE SIMPLE, AFFORDABLE, CONVENIENT WAY TO FLY.

TAPPI has partnered with Delta Air Lines as the official airline for meeting and business travel for 2005. Take advantage of Delta's new SimpliFares™ and enjoy the following benefits:

- No Saturday-night stay required - more flexibility
- Always affordable - Realize up to 50% savings on every day fares in the contiguous 48 states
- Lower change fees - reduced from \$100 to \$50 to change travel plans
- Just eight fares - less guessing and easier planning

Simply go to www.delta.com to make reservations. Enter TAPPI's SkyBonus account number US445684101 on your passenger information screen where it says, If your company is a SkyBonus program member, enter the number here: insert "US445684101". Your benefits include:

- No service fees
- 1,000 SkyMile bonus points
- Skip the airport lines; check in online

► Avis Rent A Car

TAPPI has arranged for special car rental discounts through Avis. To check rates and to reserve a vehicle, please call 1-800-331-1600 and refer to Worldwide Discount Number U226699.

► Visitor Information

Go to www.pcvb.org For Historic Philadelphia visitor's information

Table Top Trade Fair

3:00 pm-7:30 pm Mon., Aug. 29 & 7:00 am to 7:30 pm Tues., Aug. 30

Don't miss out on your opportunity to present information on your latest research and product applications. At the conference's Table Top Trade Fair, you will have the opportunity to present your information to the entire conference attendance.

Participation in the Table Top Trade Fair delivers:

- **6' display table in the high-traffic, high visibility, conference "nerve center" area**
- **Best possible recognition of your products and services**
- **Listing in the conference program book**

This is your chance to present your information directly to people who are interested in your products and services. Reserve your table at the Table Top Trade Fair by faxing back the attached form to Ed Robie at 770-209-7400. If any questions, contact Ed Robie at erobie@tappi.org or 770-209-7243.

Table Top Trade Fair FAQ's

What is the tabletop display?

The Table Top Trade Fair is designed for one-to-one marketing interaction. Included in the price of the tabletop is one 6-ft draped table and company identification placard. The Table Top Trade Fair is strategically located in the conference registration area where all receptions, coffee breaks and high traffic events occur. Perfect for meeting your prospects and clients!

How much does it cost?

US\$895 per table or \$1,395 for two tables. Applications will be processed on a first-come, first-served basis as long as space is available. Registration for the technical program is a separate fee. Information about registration options will be available by April 29.

How do I sign up?

Return this Table Top Trade Fair Form to Ed Robie at TAPPI.

FAX: 770-209-7400. Or, contact your Solutions! magazine marketing consultant.

When can we set up?

Official set up will be Monday morning, however, if you arrive on Sunday, August 28, the tables will be set and ready for you. Please understand, however, that no security will be provided on Sunday evening.

You may also wait to tear down on Wednesday, however, security will not be provided on Tuesday evening. There will be space behind your table for pop-up displays.

Each company will receive a 6' table to display literature and two chairs. Information about ordering and paying for electrical power will be available by July 1.

Company Name: _____

Contact Name: _____

Address: _____

Phone: _____ Fax: _____

E-Mail address: _____

Company Products: _____

Payment: \$895.00 per table (6'x3') or \$1,395.00 for 2 tables (12'x3')

☐ Check Enclosed

☐ Credit Card _____ Amex _____ Diner's Club _____ Discover _____ MasterCard _____ VISA

Credit Card Number: _____ Expiration: _____

Authorized Signature: _____

Interested in conference sponsorship opportunities?
Contact Vince Saputo at vsaputo@tappi.org or call 770-209-7529



2005 TAPPI Engineering, Pulping & Environmental Conference

SAVE TIME AND MONEY! REGISTER BY AUGUST 12!

4 WAYS TO REGISTER

- **On-line:** www.tappi.org/05epe
- **By fax:** 770.209.7206
- **By mail:** TAPPI, P.O. Box 791190, Baltimore, MD 21279-1190
- **By phone:** 1.800.332.8686 (U.S.) 1.800.446.9431 (Canada) +1.770.446.1400 (International)

GENERAL INFORMATION

Please circle: Mr. Ms. Mrs. Dr. Sr. Jr. Name _____ TAPPI Membership # _____
 Badge Name _____ Title _____ Spouse/Guest Name _____
 Company Name _____ Company Address _____
 City _____ State/Province _____ Zip/Postal Code _____
 Telephone _____ Fax _____ E-mail _____

REGISTRATION PROFILE

1. What type of employer do you work for?

- ___ Pulp and Paper/Paperboard Manufacturing (1) If your employer is a Pulp and Paper Manufacturer, please select 1 letter ONLY from either D, R, P, or H from Question 3 below.
 ___ Consulting Firm or Independent Consultant (2)
 ___ Converting Operation (4) If your employer is a Converting Operation, please select 1 letter ONLY from either H or O from Question 3 below.
 ___ Supplier (Manufacturer of Machinery, Equipment, Chemicals & Shipping) (7)
 ___ Distributors, Dealers, Exporters, Importers, Mill Supply Houses (8)
 ___ Educational Institutions (9)
 ___ Press, Library (other than University), Association, Government (10)
 ___ Miscellaneous, allied to the field (12)
 ___ Printing/Graphic Arts (15)

2. What is your primary job function?

(Please select 1 letter only from A - J) Please place a check in the box provided next to your job function.

- | | |
|---|--|
| A Librarians - Corporate | F Purchasing & Stores |
| B Corporate Management | G Marketing & Sales |
| C Production | H Traffic & Shipping |
| D Technical/Research & Development | I Other Management & Administrative Personnel |
| E Engineering | J Other |

3. What is your primary industry?

- ___ Pulp Mill Only
 ___ Paper/Paperboard Mill Only
 ___ Integrated Pulp/Paper/Paperboard Mill
 ___ Technical/R & D Facility/Headquarters
 ___ Independent Operations/Converting Plant

Do you require special accommodations for handicapped access? ___ Yes

The contact information you provide may be used by TAPPI or its business associates to notify you of items that may be of interest to you. I understand that under certain laws and regulations, TAPPI must have written permission in order to communicate with me via fax or email. I hereby give TAPPI, TAPPI's business associates, the TAPPI Foundation, and TAPPI's Local Sections written permission to communicate with me via ___ fax and/or ___ email.

Signature and date _____

PAYMENT

Must accompany registration.
 Please convert checks to equivalent U.S. Currency.
 ___ Enclosed is my check for the full amount (Make check payable to TAPPI)
 Please bill my credit card (complete the following information)
 ___ Amex ___ Diner's Club ___ Discover ___ MasterCard
 ___ VISA

Credit Card # _____

Exp _____

Print name as it appears on card

Signature and date _____

CANCELLATION POLICY

If you find that you have to cancel, your full registration fee will be refunded if TAPPI's Registration Department receives written notification (fax acceptable at 770.209.7206) by August 12, 2005. Please Note: there will be a 50% refund for all written cancellations made after August 12, 2005 but no later than 5 business days prior to the start of the conference. Understandably, after this time, no refunds can be issued. Substitutions, however, will be accepted any time without a penalty.

CONFERENCE REGISTRATION OPTIONS & FEES

Options and Fees	Early Bird	After 8/12
___ TAPPI, PIMA, PAPTAC or ABTCP Member	\$875	\$1315
___ Multi-registrant: Best value! 3 or more TAPPI members from the same company. All must register at the same time.	\$675	\$800
___ Nonmember	\$1315	\$1975
___ Single Day Member (Specify Day) _____	\$480	\$725
___ Single Day Nonmember (Specify Day) _____	\$725	\$1085
___ Retired	\$300	\$300
___ Student (full time undergraduate or graduate)	No charge	No charge
___ Join TAPPI: Join now and receive the Member rate for the Conference. You'll also receive Solutions! at no extra charge. (Canadian residents must include GST or HST)	\$154	\$154
*Speaker Options	Early Bird	After 8/12
___ Speaker (Full conference)	\$440	\$640
___ Speaker One Day (Specify Day) _____	No charge	No charge
*New Technology Showcase presenters are not considered technical session speakers. A special single day fee of \$250 is available only to NTS speakers.		
*Workshops	Early Bird	After 8/12
___ Biological Wastewater, Sunday Session 1	\$50	\$75
___ Bleach Plant Operations, Sunday Session 2	\$50	\$75
___ Recycling Tutorial, Sunday (Session 3 & 4)	No Charge	No Charge
*In order to register for workshops, you must also register for the conference. Workshop fees are for workbooks and other fees related only to the workshops.		
Accompanying Family/Guest Program	Early Bird	After 8/12
___ Spouse/Guest (18 years & older)	\$50	\$70
___ Child (6-17 years)	\$20	\$30
Optional Tours	Early Bird	After 8/12
___ Tour 1: Historic Rittenhouse Towne (minimum 20; maximum 35)	\$55	\$55
___ Tour 2: Longwood Gardens/Brandywine (minimum 40; maximum 45)	\$68	\$68
Special Package Fee		
Spouse/Guest (18 years & older) \$175 \$200	\$175	\$200
Child (6-17 years)	\$140	\$165
Please photocopy this form as necessary for multiple registrants. TOTAL \$		

By checking and signing below I request a free subscription to Solutions! for People, Processes and Paper (monthly, the official magazine of TAPPI and PIMA, free hard copy).

___ Yes ___ No Signature _____ Date _____

Publisher reserves the right to determine qualifications for the free subscription.

2005 TAPPI Engineering, Pulping & Environmental Conference



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and Paper Technical Association of Canada

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