

# 62<sup>nd</sup> Appita Annual Conference and Exhibition

## 20 - 23 April 2008

### Energy Events Centre, Rotorua, New Zealand

## TECHNICAL PROGRAM

Monday 21 April 2008				
0915	<b>Conference Opening</b> Welcome – Geoff Covey, Appita President Conference Opening – Ernie Hacker, General Manager, Norske Skog Tasman Keynote Address - 'Designing the forest biorefinery' Professor Paul Stuart, Chair, NSERC Environmental Design Engineering École Polytechnique, Montreal, Canada Presentation of 2007 Appita L R Benjamin Medal			
1030	Morning tea			
	<b>Session A</b>	<b>Session B</b>	<b>Session C</b>	<b>Industry Innovations</b> The latest product and services developments from our supplier companies
	<b>The biorefinery</b>	<b>Papermaking</b>	<b>Management Group Seminar</b>	
1100	What is the role for biorefineries? <i>Geoff Covey, Stephen Grist</i>  Covey Consulting, Australia	The inverted Tri-Ex press for optimum WTL production <i>Giancarlo Gianlorenzi</i>  PMT Italia, Italy	<b>Benchmarking performance: How to be 'best of the best'</b>  <b>Convenor: Dennis Shore, Covey Consulting</b>  Program in preparation – speakers include Mill and supplier representatives	BASF
1130	The Biorefinery: Critical issues and technical perspective <i>Gil Garnier</i>  APPI Monash University, Australia	Technical aspects of wires and felts stretching on paper machines <i>Edward Unger</i>  Erhardt + Leimer, Germany		BASF
1200	The Biorefinery: production capacities and implications on markets <i>Jose Melendez</i>  APPI Monash University, Australia	Leading forming fabric development: A calculated process for predictable success <i>Carl Taylor<sup>1</sup>, Matthias Hoehls<sup>2</sup>, Elisabeth Oxandaboure<sup>2</sup></i>  <sup>1</sup> Voith Paper Fabrics China <sup>2</sup> Voith Paper Fabrics, Germany		BOC Limited
1230	Lunch			
	<b>Biofuels</b>	<b>Newsprint</b>	<b>Management</b>	
1330	Enzyme technology for processing biomass to liquid fuels <i>Ken K Y Wong</i>  Scion, New Zealand	Reduced gas usage in the power and steam supply system of a newsprint mill using advanced process control <i>Paul Austin</i>  Perceptive Engineering Ltd, England	Ideas management in Norske Skog's product development process <i>Klaus Moller</i>  Norske Skog, Norway	BOC Limited
1400	The Furafuel <sup>®</sup> development – producing furan-based liquid transport biofuels from lignocellulose <i>Tony Duncan<sup>1</sup>, Steven Loffler<sup>2</sup>, Tony Patti<sup>3</sup>, Warwick Raverty<sup>2</sup>, Levi Reid<sup>3</sup>, Nafty Vanderhoek<sup>2</sup></i>  <sup>1</sup> Circa Group, Australia <sup>2</sup> CSIRO Forest Biosciences, Australia <sup>3</sup> Monash University, Australia	Novel use of mechanical pulp <i>Kwei-Nam Law, Lianshan Mao, François Brouillette, Claude Daneault</i>  Université du Québec à Trois-Rivières, Canada	Lean manufacturing, a starting point <i>John Nelson</i>  Kimberly Clark Australia	Title to be advised <i>Daniel Palsson</i>  GL&V, Sweden
1430	Polyploids at will – the evidence to date <i>Mal Lamont</i>  Bio Adapt International, Australia	The use of white water closed loop control to provide chemical savings and more stable wet end chemistry conditions of a newsprint machine <i>Ingo Von Medvey<sup>1</sup>, Jogeir Munkeby<sup>2</sup>, Paul Puiatti<sup>2</sup>, Przem Pruszyński<sup>3</sup></i>  <sup>1</sup> Norske Skog Albury, Australia <sup>2</sup> Nalco Australia <sup>3</sup> Nalco, USA	Water management at Norske Skog Albury – running a paper mill in a drought-stricken environment <i>David Hicks</i>  Norske Skog Albury, Australia	Key Knife South Pacific
1500	Afternoon tea			
	<b>Biorefinery processes</b>	<b>Papermachine operations</b>	<b>Emissions management</b>	
1530	Lignin as a chemical feedstock: Opportunities and challenges <i>Ian Suckling</i>  Scion, New Zealand	Utility reduction of a paper machine under non-continuous operating conditions using pinch analysis <i>Martin Atkins</i>  University of Waikato, New Zealand	Investigating the source of high TRS emissions from a dissolving tank <i>Jana Sidebottom, Wicky Moffatt</i>  CHH Kinleith, New Zealand	
1600	Biodiesel production from transesterification to two-step process over acid catalysts <i>Sukritthira Ratanawilai, Chakrit Tongurai, Thanate Ratanawilai, Klangdean Pochana</i>  Prince of Songkla University, Thailand	Delivering operational efficiencies and environmental sustainability via innovative technologies <i>Mohan Kelkar</i>  Nalco Pacific, Singapore	TRS removal from tall oil scrubber gas using TAML activator <i>Kim McGrouther<sup>1</sup>, Jana Sidebottom<sup>2</sup>, Wicky Moffatt<sup>2</sup></i>  <sup>1</sup> Scion, New Zealand <sup>2</sup> CHH Kinleith, New Zealand	
1630	The first biomass refinery for the production of pulp, lignins and C5 sugars at industrial scale from annual plants and hardwood <i>Michel Delmas, Bouchra Benjelloun-Mlayah</i>  CIMV and University of Toulouse, France	Modern online cleaning solutions to improve efficiency and productivity in paper machines <i>Matti Karpinen<sup>1</sup>, Urpo Launonen<sup>2</sup></i>  <sup>1</sup> PP-washing Process, Finland <sup>2</sup> UJL Pty Ltd, Australia		
Evening	Welcome Function at Blue Baths (meet in Exhibition at 6.30 pm)			

Tuesday 22 April 2008				
	Session A	Session B	Session C Appita Asia/ Environment Seminar	Industry Innovations The latest product and services developments from our supplier companies
	Mechanical pulping	Stock preparation	Carbon trading – invited speakers	t
0900	Crit segments in TMP refining <i>Phichit Somboon, Juha Vuorela, Tuomo Pynnönen, Hannu Paulapuro</i>  Helsinki University of Technology, Finland	Paper making studies with synthetic backwater <i>Michael Wedding<sup>1</sup>, Nafty Vanderhoek<sup>1</sup>, Warwick Raverty<sup>1</sup>, Dexter Morgan<sup>2</sup>, Ian Suckling<sup>2</sup>, Nicola Dooley<sup>2</sup></i> <sup>1</sup> CSIRO Forest Biosciences, Australia <sup>2</sup> Scion, New Zealand	Introduction of the topic: <i>Peter Allan</i>  Pan Pac Forest Products, New Zealand	Integrating root cause analysis methodologies <i>Leith Hitchcock</i>  Pall Corporation, Australia
0930	Ultra-fine grinding of radiata pine thermomechanical pulp <i>Nicola Dooley<sup>1</sup>, Taegeun Kang<sup>2</sup>, Hannu Paulapuro<sup>2</sup></i>  <sup>1</sup> Scion, New Zealand <sup>2</sup> Helsinki University of Technology, Finland	Improved pitch management with a new washing system and TMP upgrade at Norske Skog Albury <i>Peter Braeuer<sup>1</sup>, Christian Ronning<sup>1</sup>, Bandula Welungoda<sup>2</sup>, John Mosbye<sup>3</sup>, Des Richardson<sup>3</sup></i> <sup>1</sup> Andritz AG, Austria <sup>2</sup> Andritz Pty Ltd, Australia <sup>3</sup> Norske Skog, Australia	The European situation <i>David Morgan</i>  CEPI, UK	Beca AMEC
1000	The potential of sulfur dioxide treatment to enhance radiata pine TMP quality <i>John Richardson, Karl Murton</i> Scion, New Zealand	Solving pitch deposit problems on paper machines using mechanical pulp <i>John Mosbye, Des Richardson, Tony Parsons</i>  Norske Skog, Australia	An Australian perspective <i>Miles Prosser</i>  A3P, Australia	Covey Consulting
1030	Morning tea			
	<b>Appita TechTalk</b> <i>'Practical technology for the pulp and paper industry'</i>	<b>Air in stock</b>	<b>Carbon trading – invited speakers</b>	
1100	<b>Mechanical pulping: Getting the best out of your existing equipment</b>  <i>Convenor: John Richardson, Scion, New Zealand</i>	PARETO™ wet end optimisation technology <i>Aleksander Todorovic<sup>1</sup>, Casimiro Da Silva<sup>2</sup>, Kinda Li<sup>3</sup></i>  <sup>1</sup> Nalco, Finland <sup>2</sup> Nalco, Netherlands <sup>3</sup> Nalco, China	What's happening in Canada? <i>Paul Stuart</i>  École Polytechnique, Canada	Cleveland Process Automation
1130	<i>Morning session: Refiner control and instrumentation</i>	Air in pulp and papermaking processes <i>Tuomas Stoor</i>  University of Oulu, Finland	What's the cost? <i>Julia Hoare</i>  Price Waterhouse Coopers, New Zealand	Scandinavian Electronics
1200	Program in preparation – speakers from: Norske Skog Pan Pac Forest Products Winstone Pulp International	Passive white water deaeration efficiency in open channel flow <i>Antti Haapala, Tuomas Stoor, Henrikki Liimatainen, Mikko Nelo, Jouko Niinimäki</i> University of Oulu, Finland	What does it mean from a mill operations perspective? <i>Lester Sherman</i>  Beca AMEC, New Zealand	Title to be advised <i>Urpo Launonen</i>  UJL Pty Ltd, Australia
1230	Lunch			
	<b>Appita TechTalk</b> <i>'Practical technology for the pulp and paper industry'</i>	<b>Coating</b>	<b>Carbon trading and energy management – offered papers</b>	
1330	<b>Mechanical pulping: Getting the best out of your existing equipment</b>  <i>Convenor: John Richardson Scion, New Zealand</i>	Starch in coating binder systems: Economic and quality effects of pre- and top- coat <i>Friedrich Kendel<sup>1</sup>, Christian Kugge<sup>2</sup>, Matthias Ganz<sup>1</sup>, Gil Garnier<sup>1</sup></i> <sup>1</sup> APPI Monash University, Australia <sup>2</sup> CSIRO Forest Biosciences, Australia	Carbon cycles: An outline of a forest products industries 'GHG balance sheet/carbon footprint' within the Australasian region <i>Shane Baker</i>  Beca AMEC, Australia	Avweld Australasia
1400	<i>Afternoon session: Maximising efficiency in fibre processing</i>  Program in preparation – speakers from: Andritz J&L Fiber Services Metso	Effect of pre-coat and substrate porosity on conventional barrier coatings performance <i>Friedrich Kendel<sup>1</sup>, Peter De Morton<sup>2</sup>, Christian Kugge<sup>2</sup>, Nafty Vanderhoek<sup>2</sup>, Gil Garnier<sup>1</sup></i> <sup>1</sup> APPI Monash University, Australia <sup>2</sup> CSIRO Forest Biosciences, Australia	Energy and carbon emissions reduction at Pan Pac Forest Products <i>Peter Allan</i>  Pan Pac Forest Products, New Zealand	Avweld Australasia
1430		Enhanced compressive creep performance of corrugated boxes using BTCA crosslinking <i>Maria Pasco, Ian Chalmers, Robin Parr, Ian Suckling</i>  Scion, New Zealand	Energy management at Kimberly Clark's Millicent and Tantanoola Mills <i>Stephen Harper</i>  Kimberly Clark Australia	Australian Baldor
1500	Afternoon tea			
	<b>Fibre fractionation</b>	<b>Printing</b>	<b>Energy reduction – offered papers</b>	
1530	Novel strategies for earlywood and latewood separation <i>John Lloyd<sup>1</sup>, Michelle Sloane<sup>1</sup>, R Teng<sup>2</sup></i>  <sup>1</sup> Scion, New Zealand <sup>2</sup> University of Waikato, New Zealand	Convertability effects on printability of paper and paperboard <i>Behduin Mesic</i>  Scion, New Zealand	Energy consumption reduction in tissue drying methodology <i>Giancarlo Gianlorenzi<sup>1</sup>, D Mainardi<sup>1</sup>, Andrew Emmanuel<sup>2</sup></i>  <sup>1</sup> PMT Italia, Italy <sup>2</sup> PM Solutions, Australia	Sandvik New Zealand
1600	Fibre and shives measurement for pulp grading and branding <i>Jarmo Koskinen<sup>1</sup>, Teuvo Peltomäki<sup>1</sup>, Damian Harris<sup>2</sup>, Timo Riippa<sup>2</sup></i>  <sup>1</sup> Metso Automation, Finland <sup>2</sup> Scandinavian Electronics, Australia	On the ink flow on the printing nip, and its implications on coated paper runnability <i>Francisco Javier Diaz<sup>1</sup>, Andrey Kutznezov<sup>2</sup></i>  <sup>1</sup> Lecta, USA <sup>2</sup> North Carolina State University, USA	Energy saving in stock preparation for recycled fibre <i>Rodrigo Ruffo<sup>1</sup>, Stan Malton<sup>2</sup></i>  <sup>1</sup> Voith Paper, Brazil <sup>2</sup> Voith Paper, Australia	Sulzer Pumps
1630	Fractionation in DIP lines – a further step in waste paper recycling <i>Harald Kraschowetz, Erwin Hertl</i>  Andritz AG, Austria	Analysing the relationship between ink coverage and variations in sheet grammage and topography <i>Alan Dickson<sup>1</sup>, Gary Chinga<sup>2</sup></i>  <sup>1</sup> Scion, New Zealand <sup>2</sup> PFI, Norway	New paper machine technologies for energy saving <i>Markus Wild<sup>1</sup>, Stan Malton<sup>2</sup></i>  <sup>1</sup> Voith Paper, Germany <sup>2</sup> Voith Paper, Australia	
1700	After session drinks in the Exhibition (5.00 – 6.00 pm)			

	Session A	Session B	Session C	Industry Innovations The latest product and services developments from our supplier companies
	Process control	Research and development	New Speakers Contest	
0900	Using the modern online porosity analyser in board machines <i>Heikki Mustalahti<sup>1</sup>, Jaakko Rintamäki<sup>1</sup>, Kai Karinen<sup>1</sup>, Urpo Launonen<sup>2</sup></i>  <sup>1</sup> ACA Systems, Finland <sup>2</sup> UJL Pty Ltd, Australia	A simple method to evaluate the controllability of heat exchanger networks <i>Brent Young<sup>1</sup>, Rodolfo Telléz-Schmill<sup>2</sup>, William Svrcek<sup>3</sup></i>  <sup>1</sup> University of Auckland, New Zealand <sup>2</sup> SNC-Lavalin, Canada <sup>3</sup> University of Calgary, Canada	Silica modification of kraft pulp fibres <i>Karen Love<sup>1</sup>, Brian Nicholson<sup>2</sup>, John Lloyd<sup>1</sup>, Robert Franich<sup>1</sup></i>  <sup>1</sup> Scion, New Zealand <sup>2</sup> University of Waikato, New Zealand  NZ Section Winner, 2006	Process Line Package – new ways to execute paper machine projects <i>Marcelo dos Santos</i>  Voith Paper Maquinas, Brazil
0930	Unified online dirt count and process disturbance analysis system for pulp applications <i>Mikko Ruuska<sup>1</sup>, Ville Tirronen<sup>2</sup>, Urpo Launonen<sup>3</sup></i>  <sup>1</sup> Viconsys Oy, Finland <sup>2</sup> University of Jyväskylä, Finland <sup>3</sup> UJL Pty Ltd, Australia	Control concept of debarking room <i>Ari Isokangas, Kauku Leiviskä</i>  University of Oulu, Finland	Chemicals from lignin <i>Daniel van den Pas</i>  Scion, New Zealand  NZ Section Winner, 2007	Voith Paper
1000	Onsite quality assurance of large flow and energy measurements in paper mills <i>Ville Laukkanen<sup>1</sup>, Urpo Launonen<sup>2</sup></i>  <sup>1</sup> Indmeas Oy, Finland <sup>2</sup> UJL Pty Ltd, Australia	Sensing and communicative packaging <i>Steve Ranford, Ali Azam, Hong Zhang</i>  AgResearch Limited, New Zealand	   Sth Tasmania Section Winner, 2007	Albany International
1030	Morning tea <i>Presentation of New Speakers Contest prize, Best Presented Mill Paper prize and Best Exhibitor plaque</i>			
	<b>Appita TechTalk</b> <i>'Practical technology for the pulp and paper industry'</i>	<b>Paper properties</b>	<b>Late entries – ungrouped</b>	
1100	<b>De-bottlenecking the chemical recovery cycle</b>  <i>Convenor: Tony Johnson, Beca AMEC</i>	The development of an ultrasonic measurement for the prediction of paper properties – Part 1 <i>Russell Allan</i>  XQ Innovations, Australia	Effect of bar edge conditions on fibre trapping in low consistency refining <i>Tom Lundin<sup>1</sup>, Warren Batchelor<sup>2</sup>, Pedro Fadim<sup>1</sup></i>  <sup>1</sup> Åbo Akademi University, Finland <sup>2</sup> APPI Monash University, Australia	Papquip
1130	Program in preparation – speakers from: Andritz Beca AMEC Carter Holt Harvey	The development of an ultrasonic measurement for the prediction of paper properties – Part 2 <i>Russell Allan, Murray Singleton</i>  XQ Innovations, Australia	Mill experience with low consistency bleaching of refiner mechanical pulp with hydrogen peroxide <i>Steve Brine, Mike Ashburn</i>  Norske Skog Tasman, New Zealand	Papquip
1200	<i>Questions and discussion</i>	<b>62<sup>nd</sup> Appita Annual General Meeting</b> Presidential report, 2007 Financial report, 2007 Election of Office Bearers, 2008 – 2010 Presentation of 2007 Oertel Nadebaum Distinguished Service Award Presentation of 25 year and 40 year membership certificates		
1230	Lunch			
	<b>Appita TechTalk</b> <i>'Practical technology for the pulp and paper industry'</i>	<b>Water management</b>	<b>Engineering</b>	<b>Fibres for paper</b>
1330	<b>Towards a safer workplace</b> <i>Convenor: Barry Shill, Beca AMEC</i>  1450 Safe attitudes and behaviour at work <i>Roger Canty, Covey Consulting</i>  1450 Changing safe working behaviours and attitudes at Norske Skog Tasman <i>John Skudder (Norske Skog Tasman, New Zealand)</i>  1410 Look, don't touch – safely monitoring paper machine and clothing performance <i>Clinton Handcock (Huyck.Wangner, New Zealand)</i>	The Gippsland Water Factory – revolutionising the treatments of pulp and paper mill effluent <i>Andrew Hodgkinson<sup>1</sup>, Kim Fries<sup>2</sup>, Emily Harrison<sup>3</sup></i>  <sup>1</sup> Gippsland Water Factory Alliance, Australia <sup>2</sup> CH2M Hill, Australia <sup>3</sup> SOCOM, Australia	A practical guide to damping flow fluctuations <i>Geoff Covey</i>  Covey Consulting, Australia	A new technology for processing banana plant fibre for paper products <i>Grant Pigot</i>  Papyrus Australia Ltd, Australia
1400	1410 Look, don't touch – safely monitoring paper machine and clothing performance <i>Clinton Handcock (Huyck.Wangner, New Zealand)</i>	Pilot plant investigations into the feasibility of membrane treatment of paper machine and deinking plant filtrates <i>Des Richardson, Lasse Blom, Elizabeth Reeves</i>  Norske Skog Australia	Un-nipped roll cover technology <i>Cody Merriion<sup>1</sup>, Phil Bond<sup>2</sup></i>  <sup>1</sup> Industrial Polymer Solutions, USA <sup>2</sup> Awweld, Australia	Pulpwood quality of <i>Eucalyptus dunnii</i> trees selected from commercial plantations in Queensland and New South Wales <i>Allie Muneri, K Tomita, T Daido, T Brown, K Tsurumi</i>  Oji Paper, Australia
1430	1450 Safe tail threading in papermachines and winders <i>Bruce McGregor (Dougmac, Australia)</i>  1450 Discussion	Membrane design and optimisation for treating variable wastewater sources <i>Scott Caothien<sup>1</sup>, Ron Van Bommel<sup>2</sup>, Scott Chalmers<sup>2</sup></i>  <sup>1</sup> Pall Corporation, USA <sup>2</sup> Pall Corporation, Australia	Intelligent P&IDs and database engineering: An introduction to the concepts and tools used in projects that employ intelligent P&ID software, and database-oriented engineering software <i>Scott Cole</i>  Beca AMEC, New Zealand	
1500	Afternoon tea			
1530				
1600				
1630				
1700 Evening	Gala Conference Dinner at the Energy Events Centre (7.00 pm for pre-dinner drinks)			