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MONDAY, March 18
- Suites open 8am–4pm
- Paper2013 Opening Session 4–5:30pm (suites closed)

TUESDAY, March 19
- Suites open 8am–noon and 2:30–6pm
- RISI Global Paper Market Trends and Forecast 10 – 11:30am
- Paper2013 Luncheon noon – 2:30pm (suites closed)
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Interacting with Paper

By John O'Brien, Managing Editor
jobrien@paperage.com

For some time now electronic media has spelled the death of print. But what if electronics found a way to interact with paper and make paper its medium of choice as a way to connect with the world?

Say hello to interactive paper and a group of innovative developers who formed Interactive Newsprint — a collaborative effort between the University of Central Lancashire (UCLan), University of Dundee, University of Surrey and printed electronics firm Novalia to develop and test a new idea for community news based on digital interactive paper.

At one of the world’s top technology festivals, South-By-Southwest in Austin, Texas, which showcases cutting edge innovation and ideas in digital film, music and interactive media, Paul Egglestone a leader of the Interactive Newsprint project, said, “We are actively prototyping and testing radically new forms of interaction between people and the internet that have not been seen before. We are connecting people to the internet using paper and adding the potential benefits of some online features like analytic data on user interactions. This is dynamite for the print industry and opens up a whole series of new ways to fund the future of content creation – whether that’s news and information, or, in this case, music.”

On the group’s website (interactivenewsprint.org), it states: “Interactive paper is a type of “smart” paper. It is responsive to a human touch, which means sheets of paper can turn into interactive displays. For example, imagine a community news poster with an interactive title. This could be designed to advertise and illustrate articles read aloud at the push of embedded buttons.”

In a short video on Interactive Newsprint’s website, narrators talk about the simple nature of the product that is the foundation of their work towards the next big thing.

“Tell me a day when you didn’t touch paper and you didn’t touch an electronic device. Paper’s everywhere, it’s ubiquitous, we all know how to use it; we don’t need an instruction manual, it’s cheap, it’s recyclable, and we’ve got an infrastructure to print on it. It’s probably a medium that’s changed the world many, many, many times. I think it’s got the ability to change the world many times yet.”

Edwin Kee, a senior associate editor for the website Ubergizmo, says interactive paper will change the way the world delivers electronic information and has this to say about a poster called the “Listening Post” created from interactive paper.

“...now this is advertising in the 21st century, and we would expect a snazzy touchscreen display or sorts, right? Apparently not, as the Listening Post is made out of paper, although it does contain printed electronics that enables it to play song clips when touched. This is made possible as the circuit is completed when you push the right “buttons” on it, as the clever use of conductive ink helps complete the loop.

Kee explains further the multiple functions of the interactive poster. “Currently still a prototype, the “Listening Post” poster is actually a guide to bands that perform locally. When you press a thumbnail image, it will play a short clip of a band’s music.

“A “paper app” might be the next big thing in terms of advertising,” he adds.

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Scotia Investments to Close Minas Basin Containerboard Mill in December

Scotia Investments, a private holding company, notified the employees of its Minas Basin Pulp and Power containerboard mill in Hantsport, Nova Scotia, Canada that the mill will be closing in mid-December of this year.

The decision will impact 135 employees at the mill.

Scotia’s President and CEO, Archie MacPherson, said the age of the mill played a major role in the decision by Scotia’s Board to close the operation.

In a memo to employees, MacPherson said, “With last year’s restructuring of operations and adjusting of the workforce, many have remained hopeful that, together with some recent improvement in pricing, the mill could be competitive. However, after several years of challenge, the board has concluded that it is time to recognize that the mill is at the end of its cycle. Long term sustainability cannot be achieved. Like most other mills in this sector, we continue to experience marketplace challenges, increased competition (using newer, more efficient technology) and rising costs of operation. In recent years, we have made many improvements to try and address these issues and have explored numerous options in an attempt to make the mill competitive.”

MacPherson said 40 of the 135 employees will be transitioned to other companies within Scotia’s group, including CKF Inc., which produces moulded pulp and foam products including Royal Chinet paper plates. He added that Scotia “will begin working immediately with the remaining employees to find alternative options and support them through this transition and mill closure...We will be fulfilling all employment obligations, including the pension plan.”

MacPherson said that Scotia plans to continue to focus and invest in those growth opportunities that provide the greatest benefit to the company, its employees and the province. “While we have worked closely with governments over many years, we are not seeking support for the mill,” he added.

MacPherson noted that Scotia isn’t getting out of the paper or packaging industry and is re-focusing within the paper sector on areas better suited for success.

“Our sister company CKF will continue to expand operations and increase production for a growing customer base and new markets, which is why we are able to offer some positions to outgoing MBPP employees. Furthermore, the energy division including the power dam operations of MBPP will continue as going concerns,” MacPherson said.

Minas Basin Pulp and Power Company Limited was founded in 1927 in Hantsport, Nova Scotia, by the late Roy A. Jodrey. In the beginning, the family-owned and operated company produced a single product — groundwood pulp, adding paperboard capacity in 1946.

The mill’s paper machine, a 110" (280cm) 2-ply Fourdrinier, has a maximum speed of 1500 feet per minute and is designed to produce light weight paperboard.

Currently, Minas Basin produces 100% recycled paperboard products such as linerboard and coreboard and has a production capacity of 100,000 metric tonnes per year.
Resolute Forest Products will permanently shut down paper machine No. 10 at its Laurentide mill in Shawinigan, Quebec. The permanent shutdown comes after an important drop in demand and an increase in market capacity of the paper grade produced on machine No. 10. The Laurentide mill, which currently has 388 employees, produces over 350,000 metric tons per year of commercial printing papers with two machines. Machine No. 10 produces 125,000 metric tons per year. This machine will cease production on November 26, eliminating nearly 111 jobs.

The shutdown will not affect paper machine No. 11, which has an annual production of nearly 225,000 metric tons per year.

Resolute noted that it is working with union representatives and the governments to mitigate the impact of the machine closure on employees with a focus on retirement. “Management intends to make sure that all the employees affected receive the necessary support, in compliance with the relevant collective agreement terms, and that as many employees as possible are reassigned to other company facilities,” Resolute said in a statement.

Resolute’s President and CEO Richard Garneau noted that market demand and capacity, the strong Canadian dollar, rising freight and fuel costs, and the continuing high cost of fiber also factored into management’s decision.

“Resolute must prove that it is profitable with mills that perform well, which forces us to improve our competitive edge by focusing on our best assets and cutting costs,” Garneau said. “This is a major challenge and we are confident that we, with our employees, will be able to meet it.”

Wingate Partners Acquires Nekoosa Coated Products

Nekoosa Coated Products, LLC announced the sale of the business to Wingate Partners, effective October 2, 2012.

Terms of the deal were not disclosed.

Wingate Partners, a Dallas, Texas-based investment firm, partnered with Paul Charapata, John Danio and other leaders on the Nekoosa team to acquire the business from Dunsirn Partners, based in Appleton, Wisconsin.

“This investment by Wingate Partners enables us to accelerate our growth as we strive to provide even more value added products and services for our customers through a shared vision of strategic partnerships, including acquisitions,” said Paul Charapata, CEO of Nekoosa Coated Products.

Nekoosa Coated Products, which manufactures specialty paper products, will remain an independent company operating under the same name.

First Quality to Install New Tissue Machine at Anderson Facility

First Quality Tissue said that it will install a new tissue machine at its Anderson, South Carolina facility.

The new machine will utilize Voith’s ATMOS technology (Advanced Tissue Molding System).

First Quality Tissue currently operates four Through-Air-Dried (TAD) tissue machines — two in Lock Haven, Pennsylvania and two in Anderson, SC.

The company expects the new machine to become operational in 2014.

Cascades Launches Antibacterial Paper Towel

Cascades Tissue Group announced the U.S. launch of its Antibacterial Paper Towel, which the company says minimizes hand contamination by killing 99.99 percent of harmful bacteria almost instantly.

According to Cascades, since 80 percent of all infections are transmitted by hand, the lack of proper hand hygiene, in particular inadequate hand washing and drying practices, continues to be a consistent, if not deadly, problem. The antibacterial paper towel can fit anywhere, doesn’t require additional steps for use. The towel releases the active ingredient Benzalkonium Chloride when in contact with wet hands. This active ingredient has been around since 1935 and is safely used in common products, including gel sanitizers, baby wipes and antiseptic skin solutions.

First cleared by Health Canada, Cascades’ antibacterial paper product now complies with the regulation and policies of the U.S. Food and Drug Administration.

News stories and photos should be submitted to John O’Brien by email: jobrien@paperage.com
Nekoosa Coated Products Introduces Antimicrobial Carbonless Paper

Nekoosa Coated Products said that it has created the world’s first antimicrobial carbonless paper by adding Biomaster® silver ion technology, a non-toxic, naturally occurring antimicrobial technology to protect against the spreading of bacteria.

“We recognize the need for a product that can help reduce the spread of MRSA infection.”
— Paul Charapata, CEO of Nekoosa

Biomaster is manufactured by BiomasterUSA, LLC.

According to Nekoosa, Biomaster silver ion technology will not affect the paper’s properties such as dry toner/laser compatibility or carbonless image permanence, and does not cause product degradation, discoloration or deterioration.

Nekoosa’s carbonless and bond papers protected with Biomaster silver ion technology are suitable for any high traffic environment such as hospitals, classrooms, exam rooms, offices, clinics and daycares, the company noted.

“We recognize the need for a product that can help reduce the spread of MRSA infection,” said Paul Charapata, CEO of Nekoosa. “This is an exciting new product launch that we feel will make an impact in reducing this emerging problem.”

Hexacomb to Open Second Manufacturing Plant in Mexico

Hexacomb, a Boise company, plans to open a new manufacturing facility in central Mexico.

The company will be locating its new plant in the state of Queretaro and expects it to be operational in the third quarter of 2013.

The facility will manufacture Hexacomb’s full line of paper-based honeycomb protective packaging products, including sheets, runners, edge and corner protectors.

“Due to the sizeable demand in Mexico for Hexacomb products, we are adding a second manufacturing facility there,” said Scott Daniel, Hexacomb president.

“Today, we supply many customers in central Mexico from our Monterrey facility, which is located in the northeastern part of the country. Over the next year, we expect to grow our business in the central region even further, which is driving the need for additional manufacturing capacity in the Queretaro area,” Daniel added.

The company is currently looking for a facility that will be able to house core and panel making equipment, eventually producing 90 million square feet of product annually. It expects to finish the site selection process by the fourth quarter of this year.

International Paper Agrees to Form Corrugated Packaging JV in Brazil

International Paper and Brazilian corrugated packaging producer Jari Celulose, Embalagens e Papel S/A, a Grupo Orsa company, have entered into an agreement to form a joint venture which will support IP’s strategy of growing its global packaging presence and better serving its global customer base.

Jari’s industrial packaging assets, including three containerboard mills and four box plants, will be separated from its pulp and forestry businesses and transferred to a newly formed company in which IP will hold a 75 percent stake.

IP’s investment in the joint venture will be BRL 952 million, or approximately $470 million at today’s exchange rate.

“This partnership fits well with International Paper’s strategy to globally grow our corrugated packaging business in strategic regions of the world,” said John Faraci, ip’s Chairman and CEO.

“We are excited about Brazil’s growing market and this investment provides us with an attractive position with a strong return on investment.”

The companies expect to finalize the deal early in the first quarter of 2013, subject to various closing conditions and governmental approvals.

Global Paper and Board Production Reached Record Level in 2011

Positive growth in Asia, Latin America, Oceania and the Middle East allowed global paper and board production to reach a new record level of 399 million metric tonnes in 2011, despite declining production in North America, Europe and Africa, according to the 2012 Annual Review of Global Pulp & Paper Statistics published by RISI.

“For the third year in a row, China took the top spot for both demand and production of total paper and board, with the US remaining in second place. China accounted for 24% of world demand and 25% of global production of total paper and board in 2011,” said Kevin Conley, Senior Economist of World Graphic Paper at RISI.

“In terms of pulp production, however, the United States remained the top pulp producing country in the world with 49.7 million metric tonnes in 2011. China came in second producing 19.5 million metric tonnes,” Conley added.
EUROPE

**Stora Enso Announces Restructuring Across All Businesses**

Stora Enso announced plans to restructure its operations through the permanent shutdown of paper machine 1 at its Hylte Mill in Sweden and the permanent closure of the corrugated packaging plant at Ruovesi in Finland.

In addition, Stora will implement efficiency improvements at several other mills.

In a statement, Stora Enso said, “The profitability improvement actions are planned to reduce annual costs by EUR 36 million and reduce the number of employees by approximately 520 altogether.”

**Hylte Mill**

Stora said due to structural weakening of newsprint demand in Europe, it will permanently shutdown PM 1 at its Hylte Mill in Sweden by the end of 2012. The mill has an annual capacity of 180,000 tonnes of newsprint. The measure affects about 140 employees at the mill.

**Finland, Sweden and Poland**

Stora Enso plans to permanently close its corrugated packaging plant at Ruovesi in Finland in the second quarter of 2013 due to decreased demand for offset-printed corrugated packaging in Finland and poor financial performance of the plant. The closure would affect approximately 60 employees at Ruovesi.

Stora also plans to streamline operations at the Heinola, Ingerois and Pori board plants in Finland and corrugated packaging operations at all of its Swedish units to ensure long-term competitiveness. The plans would reduce the number of employees in Sweden and Finland by up to 100 altogether, mostly by the end of the third quarter of 2013.

In addition, Stora Enso plans to permanently shut down board machine 2 at Ostroleka Mill in Poland by the end of 2012. Stora said BM 2 is reaching the end of its technical lifetime. Including the effects of an overall review of Polish board and converting operations, the number of employees in Poland would decrease by up to 135 altogether, Stora said.

In Sweden, Stora will improve efficiency at its Skutskar Pulp Mill to reduce costs and improve the mill’s competitiveness. The plans would reduce the number of employees at Skutskar by about 60, mostly by the end of the third quarter of 2013.

Lastly, Stora plans to trim workforces at its Ala and Gruvon sawmills in Sweden and the Varkaus sawmill in Finland from the first quarter of 2013. A total of about 25 employees will be affected by the measures.

Stora said that no decisions regarding closures and employee reductions will be taken until the local co-determination negotiations have concluded.

**Kimberly-Clark to Make Strategic Changes in Its Western and Central European Businesses**

Kimberly-Clark in its third quarter earnings statement said that it has decided to make “strategic changes” in its Western and Central European Businesses.

“These moves are intended to improve underlying profitability and to focus the company’s resources and investments on its strongest market positions and growth opportunities that can deliver more sustainable returns going forward,” K-C stated.

“The changes will primarily affect the company’s consumer businesses, with a modest impact on K-C Professional. These changes will not impact the company’s Eastern European consumer business, which is part of K-C International, or K-C’s health care operations in Europe.”

“The company will be exiting the diaper category in Western and Central Europe, with the exception of the Italian market, and will be divesting or exiting some lower-margin businesses in certain markets, mostly in the consumer tissue segment.”

“The company will also streamline its European manufacturing footprint and administrative organization to align its cost structure with these strategic decisions. Five manufacturing facilities will be sold or closed and some production will be transferred to other facilities to improve overall profitability.”

“Total workforce reductions as a result of these actions are expected to be in a range of 1,300 to 1,500 positions,” K-C concluded.

**The Newark Group to Sell Its European Operation to Private Equity Fund**

The Newark Group said that it has reached an agreement to sell its European operations to PHI Industrial Acquisitions, a Spanish private equity fund focused on acquiring non-core assets from foreign multinationals.

The sale includes all of Newark’s operations in Spain, France, Germany, and The Netherlands.

Terms of the deal were not disclosed.

“Our European and North American operations benefited from more than a decade of best practices that allowed both regions to grow, prosper and position themselves for the future,” said Frank Papa, President and CEO of The Newark Group.

“Now, however, we believe it is the right time to separate the two entities and re-dedicate our energies and resources in the geographic markets in which we have historical strength while providing the means to pursue growth in new products and new markets,” he added.

Newark expects the deal to close before the end of the year.
EUROPE

W. Hamburger to Close Frohnleiten Containerboard Mill

W. Hamburger GmbH said that it will close its Frohnleiten recycled containerboard mill in Styria, Austria during 2013. The mill employs 100 people.

The mill operates two paper machines — PM1 (90,000 tpy) and PM2 (80,000 tpy) — which produce linerboard and fluted paper.

One of the machines shut down on Nov. 1, 2012 and the other is slated for closure on April 30, 2013 at which time the mill will be closed.

In a statement the company said, “After taking over the plant in the year 2010, W. Hamburger GmbH tried everything to achieve economic efficiency of the paper mill by means of synergies with the Hamburger plant in Pitten/Lower Austria, as well as through investments and reorganization. Due to over-capacities on the European paper market and the intensified international competitive context, the company did not succeed in breaking the 15-months lasting period of loss in Frohnleiten.”

“The specific equipment in Frohnleiten with a total capacity of 170,000 tons, produced on two small paper machines with only 2.5 meter working width, is not able to compensate long term cost disadvantages on the market.”

Harald Ganster, managing director of W. Hamburger, said, “Being obliged to close-down a traditional company like Frohnleiten, in which generations have been employed, and which, as an important employer, has revitalized and helped to form the region, is a very difficult task for us.”

“We have fought for two years — by means of investments, product innovations and a reorganization of the plant. After an extensive analysis of all options we now had to realize that closing down the plant due to market development, with a comprehensive cushioning of social hardship for our employees, is the only realistic step,” he said.

INDIA

MeadWestvaco Agrees to Buy India’s Ruby Macons

MeadWestvaco (MWV) announced a definitive agreement with Mr. Alibhai Nathani and family to purchase Ruby Macons Limited, a market leader in corrugated packaging materials in India.

Terms of the deal were not disclosed.

“The acquisition of Ruby Macons extends our participation in India, strengthening our presence in a market that we have targeted for profitable growth,” said John A. Luke, Jr., Chairman and CEO of MWV.

“We’ve built a significant and highly-profitable industrial packaging business in Brazil over the last 60 years, and we will leverage this experience to serve the rapidly-evolving retail sector and fast-growing middle class in India. Through Ruby Macons and its converting customers, in addition to our own box plant in Pune, MWV will offer a wide range of packaging solutions that address market and consumer needs in India, including innovative solutions similar to those we’ve developed in Brazil for fresh produce, industrial products and consumer goods markets,” Luke concluded.

Ruby Macons produces over 150,000 tons per year of corrugated packaging materials with significant capacity expansion plans underway.

According to MWV, Ruby Macons’ revenues were approximately $80 million over the last 12 months and the company has achieved greater than 20 percent average growth over the last several years.

Ruby Macons’ offices and manufacturing facilities, including its two mills containing three paper machines, are located in and around the industrial city of Vapi, Gujarat, 180 kilometers north of Mumbai. MWV said the mills will remain in full operation and become part of MWV’s industrial packaging and global manufacturing platform.

All Ruby Macons employees will become MWV India employees and the Ruby Macons management team will remain in place, including Ashraf Nathani, managing director, Ruby Macons, who will become vice chairman and president of the business.
MP Hygiene Starts Up New Toscotec-supplied Tissue Machine

Toscotec said that MP Hygiene in October started up their new Toscotec-supplied complete tissue production line at the company’s facility in Annonay, France.

The new tissue machine (TM 1) started up smoothly and on schedule — fifteen months after the signing of the turnkey contract, Toscotec said.

The new production line includes an AHEAD-1.5S crescent former tissue machine with a single-layer headbox, double press configuration and a Steel Yankee Dryer (TT SYD 12FT), machine auxiliaries, stock preparation plant for virgin pulp and electrical control system.

According to Toscotec, its AHEAD tissue plant concept has been developed with a focus on energy saving and low emissions.

The supply deal also included a three unwind stands, tissue slitter rewinder and an automatic roll handling system.

The machine design speed is 1900 mpm with a net web width of 2820 mm and an average production of 100 tpd, Toscotec said.

Andritz to Supply C&S Paper with Two New Tissue Machines

Andritz has received an order from C&S Paper Yunfu, Luoding, Guangdong Province, China, to supply two PrimeLineST tissue machines, each equipped with a steel yankee.

Start-up is scheduled for the end of 2013.

The tissue machines have a design speed of 1,900 m/min and a width of 5.56 m.

The steel yankees will be 18 feet in diameter with a shell length of 6.2 meters, making them the world’s largest steel yankees for tissue, Andritz said.

Andritz’s scope of supply also includes the complete stock preparation plant as well as automation and drive systems.

According to Andritz, these will be the first PrimeLineST machines in China. The design of the PrimeLine ST is to reduce energy consumption in the drying process.

The machinery and equipment will be manufactured at Andritz’s production facilities in Europe and China.
Tembec in October officially inaugurated a new anaerobic treatment facility which will produce methane biogas and greatly reduce the use of fossil fuels at its high-yield pulp mill in Matane, Quebec.

Funding for the project was provided mainly by the Government of Canada with $19.7 million and the Government of Quebec with $6.3 million. The overall project represents a total investment of $29 million — $26 million for the anaerobic facility and $3 million for the installation of the new electric boiler.

The project has two main components. The first is a new anaerobic treatment facility, which treats effluent and collects methane gas produced by the treatment process. This biogas will be used as fuel in the mill’s pulp-drying process, in place of the light oils currently used.

The second component is the installation of a new electric boiler, which replaces a heavy oil fuelled boiler.

The two initiatives together will reduce by approximately 90% the use of oil as fuel sources for the generation of the Matane mill’s various process steam and pulp drying requirements, Tembec said.

The Matane mill, which has 140 employees, exports its high-yield pulp to the U.S., France, Italy, Spain, Germany, Korea and China.

SCA to Install New Biofuel Lime Kiln at Munksund Mill

SCA plans to invest about SEK 490 million in a bio-fueled lime kiln at the Munksund paper mill in Pitea in northern Sweden.

The new lime kiln, which replaces an old oil-fuelled lime kiln at the mill, will lead to annual cost savings of about SEK 50 million, along with reducing fossil (carbon dioxide) emissions by 75 percent.

“The technology to use wood pellets instead of fuel oil for an advanced installation such as a lime kiln, has been developed at SCA’s Ostrand pulp mill in Timra,” said Ulf Larsson, president of SCA Forest Products.

Apart from the lime kiln, the project includes an electro-precipitator and other supporting equipment, along with equipment for the processing and storing of wood pellets.

The new lime kiln will allow for a certain increase in the production of packaging paper at the mill, but more importantly it will allow for a continued positive development of production and products at the Munksund paper mill, SCA said.

SCA expects the new lime kiln to be operational in the fall of 2014.

The Munksund mill produces 365,000 tonnes of kraftliner per year on one paper machine.

Metsa Board Opens Biopower Plant at Kyro Mill

Metsa Board has opened a new EUR 50 million (US$65 million) biopower plant at its Kyro mill site in Finland, in partnership with two Finnish energy companies.

According to the company, the move will result in an approximate halving of the carbon footprint of Metsa Board’s high quality folding boxboard grades.

“We have been working on improving the energy efficiency and sustainability of our mills,” said Mikko Helander, CEO of Metsa Board. “The new biopower plant will help us in these efforts, as well as meeting our target of cutting CO2 emissions by 30% across operations by 2020 compared to 2009 levels.

The new biopower plant will replace the use of fossil natural gas with CO2-neutral, discarded wood, i.e. bark and other biomass from industrial side streams, as well as logging residual and chips from first thinnings of forests.

The biopower plant will produce electricity and heat for Metsa Board Kyro and also provide heating for the neighboring district of Hameenkyr.

After the start-up of the plant, CO2 emissions from the Kyro mill will be reduced by approximately 100,000 metric tpy, to about 25 percent of previous levels, the company said.
people

**PAPER**

- Ahlstrom has named Jari Koikkalainen, M.Sc. (Tech), eMBA, as Executive Vice President, Transportation Filtration, and member of the Executive Management Team, effective February 1, 2013. He will be based in Beijing, China. Koikkalainen joins Ahlstrom from Metso, where he has held various senior executive positions during 2000-2012. Koikkalainen currently is Area President, Metso Paper (China) Co., Ltd.

- Clearwater Paper announced that Linda K. Massman will become the company’s next Chief Executive Officer, effective January 1, 2013. She will also join Clearwater Paper’s board of directors at that time. Ms. Massman, currently President and Chief Operating Officer, succeeds Gordon L. Jones, who will be retiring from his roles as CEO and Chairman of the Board of Directors on December 31, 2012. Additionally, Vice Chairman and lead director of the board, Boh A. Dickey, has been appointed Chairman of the Board, effective January 1.

- FutureMark Paper Group has named Paul E. Bradshaw as Vice President of Sales and Marketing for the group’s uncoated paper products. Bradshaw previously served as the senior vice president for publishing papers at Appleton Coated LLC. He had held various sales and management positions at Appleton Coated and its predecessor companies since 1988.

- Rayonier announced that H. Edwin Kiker has been named Vice President, Investor Relations. Kiker assumes responsibility for the investor relations function from Carl Kraus, Senior Vice President, Finance, who will retire effective December 31.

- Sonoco has named Marty F. Pignone as Vice President, Paper North America. Pignone will replace John M. Grups, division vice president and general manager, who will be retiring from Sonoco on March 31, 2013 following a 36-year career.

**SUPPLIER**

- Thiele Kaolin Company announced that Robert von Bonsdorff has been appointed Managing Director for Thiele Nordic AB. Von Bonsdorff joined Thiele Finland in 2010 as Sales Manager for the Finnish and Swedish markets. A native of Finland, von Bonsdorff earned his Masters and Licentiate Degree in Material Science from Helsinki University of Technology.

- Toscotec announced that Michael Drage has joined the company as Director of Business Development for North America. Drage comes to Toscotec North America (Green Bay, Wisconsin) with over 20 years of tissue industry experience, previously holding the position of President and COO at Fabio Perini North America.

**RECOGNITION**

- The Association of Suppliers to the Paper Industry (ASPI) has named Mike Edwards, Domtar’s Senior Vice-President, Pulp and Paper Manufacturing, as its 2012 ASPI Excellence in Leadership recipient. Edwards is responsible for all pulp and paper manufacturing as well as converting operations at Domtar. Edwards received the honor for his strategic partnerships with suppliers to improve operational efficiencies at Domtar’s mills. ASPI’s Excellence in Leadership Award honors leaders in the pulp and paper industry that have demonstrated exceptional and inspiring leadership.
Pulp markets have been the epitome of a cyclical commodity market over the last several quarters. Following a record run up in prices that began in early 2009 and ran for months, market pulp prices settled in at record levels and remained there for several months. NBSK, for example, hit $1025/tonne late in 2010 and stayed near that level until early 2011. However, beginning in early to mid-2011 the market headed in the other direction. As demand weakened and stocks rose prices fell steadily by over $150/tonne before reaching a plateau in early 2012. Prices started to slip once again beginning in the spring and dropped modestly over the summer, but by the third quarter the market appears to have changed direction once again.

The unpredictable twists and turns followed by the pulp market have been driven by a global economy that has gone through a crisis in Europe and sluggish growth in the U.S. In turn, key pulp end uses such as printing and writing papers have continued to decline in the mature economies. Last year’s fall in pulp prices was certainly aided by weak global demand for printing and writing grades, which along with tissue are the two major consumers of market pulp. European and North American demand slipped as U.S. economic weakness and the crisis in Europe undermined demand and advertising during the second half of 2011. And while emerging markets continue to expand, economic problems have also dramatically slowed growth in areas such as Asia.

The slide continues as North American printing and writing paper demand is off by 7.5% through September 2012 according to the Pulp and Paper Products Council. Demand through nine months of the year was just over 15 million tonnes and North American shipments were down by a similar amount at 13.8 million tonnes. The largest decreases posted were for uncoated mechanical grades, where demand was off by over 15%, but all major grades posted decreases in demand compared to prior year levels, and shipments were off by similar amounts. Similar declines occurred in Europe as well.

In contrast, the market for tissue continues to expand around the world, even in some mature economies, and world demand rose 3.3% last year. While global tissue growth may slow a bit, it is expected growth will remain at about 3% this year and continue solid growth next year.

The Tide Turns

Beginning in late-summer and into September 2012 the pulp market began to shift. The impetus behind the change was stronger demand, seasonal factors, a decrease in mill inventories and the impact of reduced supply due to mill outages, including maintenance and unplanned shuts.

Improved demand during the third quarter was driven in part by increased buying by Chinese mills. Pulp shipments

Do Lower Stocks, Improved Demand Mark A Turn In The Pulp Market?

The pulp market may be headed in a new direction as demand improved and stocks fell during the third quarter. In turn, the change brought an end to the slip in prices that occurred over the summer. The current round of price increases has a good chance of succeeding, notably for NBSK, but continued sluggish demand coupled with upcoming capacity additions may make any gains tenuous.

By Harold M. Cody
to China are up nearly 18% year to date. Total pulp shipments during the quarter rose to 11 million metric tons, an increase of 5% and 4%, respectively, over prior quarter and prior year levels.

However, a decrease in pulp stocks in September was probably the major reason behind the recent market shift and subsequent upward movement in prices. Inventories had reached 37 days at the end of July. However, as market conditions improved due to higher shipments in August and September, pulp producer inventories dropped to 33 days of supply in September. This larger than normal drop in inventories had a big impact on the market. Stocks were down 325,000 tonnes to 3.9 million tonnes according to industry estimates. This is more than double the normal decline of about 125,000 tonnes.

Almost immediately producers moved to raise prices, which rose modestly in October, representing the first increase in several months. NBSK prices rose about $20/tonne. And in late October, the major producers announced a second straight increase, with U.S. NBSK prices set to increase $20/tonne on Nov. 1. As noted, pulp prices had fallen for three months as list prices dropped from a 2012 high of about $900/tonne at the end of the second quarter. At this point, hardwood Kraft markets are generally more over supplied and pricing weaker, with discounts off of list prices varying by area and region. In contrast, the short term outlook for softwood grades is more positive and pricing better.

**New Capacity Looms on the Horizon**

As noted, capacity changes have also been a factor recently but may be even more important over the next few months. Current downtime includes maintenance shuts and an unplanned shutdown of the Mackenzie NBSK mill in British Columbia. In addition, however, the Terrace Bay mill restarted in Ontario.

By the end of the year and in 2013 some major projects will come on line that could also have an impact. The biggest event on the horizon is the startup of Eldorado’s 1.5 million tonne/year hardwood pulp mill in Brazil, which is on target for startup by the end of the year. Reportedly most of the output of bleached eucalyptus pulp is targeted for China but about 10% is expected to be sold to the U.S. market.

Market observers note that the drop in hardwood stocks wasn’t as significant as for long fiber grades and many consider hardwood inventories to be well above a balanced market level. Thus, it may be that hardwood producers want to raise prices prior to the startup of the new Brazilian capacity. The impact of this tonnage may be modest in the beginning but by sometime in the first quarter of next year the tonnage will really be hitting the market and that is likely to have more impact on hardwood eucalyptus markets.

Two major additional hardwood pulp projects will come online next year and add nearly 3 million additional tonnes of capacity. They are the Arauco/Stora mill in Uruguay and Suzano in Brazil. Several others are planned but not confirmed in Latin America. In addition, early next year Ilm’s new 500,000 tpy Bratsk mill in Russia, a joint venture with International Paper, will start producing softwood pulp.

**Cycling Up or Going Down?**

Boding well for future pulp demand is a rapid increase in production capacity for key pulp consuming grades in China, which will help to offset the continued decline in printing and writing paper demand in the large traditional markets of North America and Europe. China’s tissue capacity is estimated to rise 2.4 by million tons and printing and writing paper by about 2 million tons by the end of next year.

Tissue capacity will also increase in North America, with a bulk of it online by early next year. The combination of new machines and upgrades to existing production lines will result in about 475,000 tons of new capacity, or about 5% of North American capacity.

A final ingredient to the mix that may help sustain price gains is exchange rates. The most notable has been the rise of the Canadian dollar, which hit $1.03 in mid-September — the highest level in over a year. The Euro also hit a four month high in mid-September. The increases make the cost of producing pulp in those regions higher, which may have the effect of raising the floor on pricing.

While pulp prices have stabilized and have moved up on NBSK, the outlook remains cautious over the next few quarters. First, the sluggish economic outlook for the global economy, including continued uncertainty about Europe, will suppress printing and writing paper demand in most markets, and hold down growth in Asia. The surge of capacity is the other reason for caution as a major restart in Canada and significant new capacity in Russia and Latin America may put a damper on any upswing next year. If China pulls back on purchases, which would slow shipments and allow inventories to creep up, the uptick in the market could stall before it really gets started. So, we’ll have to wait and see if the cycle is in fact swinging back up, or if recent gains were just a blip on the screen.

Harold Cody is a contributing writer for PaperAge. He can be reached by email at: HCody@paperage.com.
heads up

Sell-offs and Closures = Big Changes

There is no let-up in the structural decline in newsprint and magazine grades in Europe. The resulting sell-offs and closures have become a monthly ritual as the big players try to decide what their next move will be.

By David Price

The latest sell-off casualty is my neighborhood paper mill, Aylesford Newsprint in Kent, UK. The mill was sold in October to U.S.-based private equity firm Martland Holdings. It was sold for a “nominal sum.” The mill is barely 20 years old, and I first saw it when it was a hole in the ground. It was owned by Sweden’s SCA and South Africa’s Mondi. The mill has a capacity of 400 tpy of recovered fibre-based newprint, but has been losing money for the last three years.

Mondi Group CEO David Hathorn said, “This disposal allows us to continue to focus on our core businesses, while creating an opportunity for Aylesford to continue supplying newprint to the major national newspaper groups in the UK.”

Can Martland make the Aylesford mill a profitable operation? Only time will tell.

Norway’s Norske Skog in August of this year agreed to sell its paper mill Parenco in Renkum in the Netherlands and the global recovered paper business, Reparco, to investment firm H2 Equity Partners. The mill currently operates one of its two paper machines. H2 indicated that it will look into new markets that may be served with the now idle second paper machine. H2 did caution however, should there be no viable future for operating a second machine, the machinery would remain idle, and Parenco would restructure the organization to align current staffing with market conditions.

UPM is selling or closing two publication-grade mills in Stracel and Corbehem, France, its Albruck mill in Germany, and is determining what to do with debt-laden Myllykoski in Finland, which it bought for $1.1 billion in 2010. At that time Myllykoski was the fourth-biggest producer of newsprint and magazine paper after UPM, Stora Enso and Norske Skog. Back then, analysts predicted that the purchase of Myllykoski was a significant consolidation at the top of the European pulp and paper industry and would trigger a succession of deals. But it wasn’t deals that followed, instead it was closures. The decline in the market in two years has been spectacular.

What is significant in these sell-offs and closures is that the shift from print to digital has been a bigger factor than the global economy. Readers and advertisers made their choices years ago. In the language of analysts, “disruptive technologies like digitization are eroding the markets for print media.” In the past, the publication-grade producers traditionally focused on volume and capacity utilization, but now the mantra is “innovation and improve margins.”

Stora Enso and UPM

In Europe the main players in publication grades are Stora Enso and UPM, both Finnish, whose headquarters are a few yards from each other on Helsinki’s waterfront. European analysts recommend a mega-merger of the two. There is
heads up

some sense in it. Europe has 10-15% overcapacity in newsprint and printing & writing papers. Papermaking accounts for 69% of UPM’s sales of $13.9 billion and 51% of Stora Enso’s $13 billion in 2011.

However, a merger of that size would be closely scrutinized by the EU cartel watchdogs who would want closure or spin-off of some paper mills.

I don’t think a merger is necessarily the way forward for UPM and Stora. If that were to happen it will come after a long period of waiting and watching as the smaller players in these grades consider putting themselves up for sale. But that would still leave UPM and Stora with overcapacity, which they obviously do not want. In addition, the Finnish state has about 25% of Stora Enso’s voting shares and the rest is owned by the Wallenberg family. That is also an obstacle the EU would want removed. UPM’s shareholding is more diverse.

One exotic option I’ve heard is that China might buy a raft of small mills in Europe and skew their entire production to the Chinese market. But that of course is speculation on the part of industry observers.

If UPM and Stora resist a merger I can see good reasons why they could continue to operate independently in a difficult market. Other sectors like aerospace, automotive industries and publishing seem to survive and prosper with few but major players. I believe that UPM and Stora will retain some operations in Europe, but most of their current and future production will be in emerging markets.

Both companies have had operations in Latin America and China for nearly 20 years. Stora Enso has huge fast-growing plantations in Brazil whose pulp supplies its European mills, but the bulk of it goes to China. This is a direction I believe Stora will pursue for the foreseeable future.

UPM has pulp operations in Uruguay, label production in Europe, a packaging plant in China and it has invested heavily into biodiesel. For UPM, I think it will increase its investment in southern pulp and biodiesel. The latter has attracted massive EU subsidies which will push UPM into the energy sector, where the competition is fierce, but where there is also room for a biomass producer with extensive forestry reserves.

In short I believe that Stora Enso and UPM will remain as the major, but separate, European forest products players for the next few years. But I’ll be the first to re-look this prediction in a year’s time!

David Price is a contributing writer for PaperAge. He can be reached by email at: DPrice1439@aol.com.

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Wile the digital world slowly absorbs all senses and skills, from communication to reading and writing, certain human habits and body functions cannot be converted to digital mode. This is where the tissue industry comes into its own, with the ever-growing papermaking business a bright spot in the time of crisis.

Two world powers in the tissue industry, USA and China, are in very different states of this business. The current leader, USA, mostly operates aging paper making assets and uses minimum capital for equipment upgrades. China is leading the way in new state-of-the-art paper machine installations. In the U.S. the story about re-opening an old 200-people paper mill in Gorham, New Hampshire for tissue operation makes big news. In China, the recent startup of a brand new high capacity tissue machine by the industry leader Hengan Group at the Rizhao downtown paper mill with the highest smokestack in the world seems like an obscure event.

Indeed, while the modest growth of tissue consumption in the developed world can be explained mostly by population increase, the developing world shows substantial advances in tissue business rapidly accommodating the customs and conveniences of modern day life.

**BENCHMARKING TISSUE CONSUMPTION**

One of the major indicators of consumerism is a usage of disposable goods, from household products to surgical supplies, and tissue consumption should be somewhere on the top of the list, varying from country to country. There is no clear method to establish realistic numbers for annual tissue consumption per capita which satisfies both environmental-
ists and manufacturers. The range of tissue product usage is wide. The USA stands out with 23kg per capita per year. This number may reflect high spending for disposable household products like kitchen towels and napkins, and passion for premium soft toilet tissue made of long virgin fibers. Excessive tissue use is embedded in the mind of an average American making him or her the darling for tissue makers and helping to create the world leading country in tissue production and consumption. Ironically, combined amounts of unrolled bands of toilet tissue hanging from trees on Halloween across the country may possibly exceed an annual take of toilet paper in some African countries.

I remember visiting the canteen at the German paper mill a few years ago with American colleagues. It was a self-service place with mill employees picking up food meals and reaching a stack of folded napkins just before a cash register. I noticed local employees taking exactly one napkin, and Americans including myself grabbing a few instead.

On the opposite end of the consumption range is Russia with 2kg, and with growth over 50% for the last eight years. While the country does not show consumption growth at the scale of Brazil, another member of the BRIC group, tissue products gradually gain recognition as well as other disposables.

Considering western Europe and Japan are somewhere in the middle, where level of per capita annual usage is noted from 11 to 16kg, it’s reasonable to establish this amount as a point of developed market reference. For emerging economies of South America, eastern Europe, Asia and Africa, the balance of rising convenience and health standards may bring regional tissue markets to this level in a 10- to 15-year period. A reverse development for the North American market, however, meaning gradual drop in per capita consumption, seems to be practically unlikely and any such signals may indicate very serious economic downturn.

IS THE CHINESE EXCESS VOLUME AN EXPORT THREAT?

According to project surveys on new tissue capacity by Tissue World magazine for 2011 and 2012, the Chinese tissue industry takes a lion’s share with over thirty new installations bringing almost 1.3 million tonnes to the market. China currently takes the world’s second place in tissue production and consumption after the United States. Based on the reports from China National Household Industry Association (CNHIA) the estimated tissue production output in 2011 was nearly 5.7 million tonnes while the country’s consumption reached 5.1 million tonnes (or about 3.8 kg per year per capita). This makes up about 600,000 tonnes annual surplus tissue output, which can satisfy the markets of a few European countries.

While attempting to analyze the dynamics of an annual tissue surplus for years to come, we should assume reduction of a production volume from current 8-10% to 4-6% due to continuing industrial slowdown in China. According to CNHIA, tissue consumption grew 10% in 2011 if compared with the previous year, or by about 460,000 tonnes. The safe guess for tissue consumption growth in the next five years might be around 5-6%.

This development may gradually reduce an excess amount available for export. The share of the tissue consumption increase related to population growth seems to be less significant than the income progress. A fertility rate in China now
is 1.6 (lower than that of western Europe), which translates to population growth stabilized at about 0.5% in recent years or seven million people (at the current average rate of 3.8 kg an additional volume will be 26,600 tons).

**SHIPPING TISSUE**

While the cost structure of tissue products manufactured on modern paper machines and automated converting lines remained consistent across the world, the shipping portion of it is quite noteworthy. Indeed, a chance to buy Chinese tissue exports in Australia, New Zealand or Philippines is much higher than in Europe, the United States, Canada or Mexico.

An advantage of domestically made tissue products is that, unlike other paper, it’s not economical to ship tissue paper from overseas because of its bulk.

Shipping cost from China is the global economy enigma. How else can someone bring a weightless 3-ply virgin pocket hanky pack to a major supermarket chain in New Jersey and sell it for profit three times cheaper than similar 2-ply Kleenex? The multi-store grocery discounter Jack’s World in New York City offers similar 99-cent deals on toilet tissue and kitchen rolls imported from China. In the United States the current pattern of growth for Chinese imports shows slow spreading from major metropolitan area discount stores to key supermarket chains.

**PROGNOSIS**

Different sources list the current size of the Chinese so-called middle class from 250 to 300 million people with, according to the World Bank, annual per capita income of between $1,006 and $12,275. Such a group’s tissue annual consumption might be estimated around 6-10kg per capita with the higher limit reaching reported level of consumption in three dozen Chinese cities with population over two million, including megapoles of Shanghai and Beijing.

At this rate the total tissue volume consumed by well-to-do Chinese comes to three million tonnes. Out of the current total of five million tonnes, the balance of about two million tonnes is spread among almost one billion people with very low income. Still, the per capita number comes to 2kg — the level in the range of such countries as Russia — and high potential to grow further.

Combining effects of population growth and income improvement might reduce the export pressure coming from the growing capacity of Chinese tissue industry.

Tissue market development seems to be quite predictable based on such obvious factors as population dynamics and modern habit influence, but only the future will show the genuine market growth.

Greg Grishchenko is an independent market and technology consultant.

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2012

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2013

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The Industry Adapts: Fluff and Dissolving Pulps

Decreasing prices and margins for dissolving pulps, together with the looming specter of oversupply, will soon close this particular window of opportunity for paper producers seeking alternatives to traditional business models.

By Thomas J. McDonough

It’s no secret that electronic media have taken a big bite out of demand for communications papers and will continue to do so as we head into the future. The pulp and paper industry has responded not only by managing capacity, but in some cases by switching a mill’s product mix entirely.

Exploiting the unique absorbency characteristics of southern pine fiber, some companies have repurposed mills by converting them from printing and writing paper production to the production of fluff pulp — the stuff of diapers and similar disposable personal hygiene products. Others have decided to pursue a different strategy, retrofitting their mills for production of dissolving pulps — highly purified grades suitable for the manufacture of rayon and similar products.

FLUFF PULP

One example in the former category is International Paper’s Franklin, Virginia paper mill, which was closed in 2009. Prior to its closing, the mill had produced uncoated freesheet and coated paperboard. However, in May of 2011, IP announced that it would repurpose the mill to produce fluff pulp, a soft, white, absorbent form of pulp used in diapers, feminine hygiene products and similar applications.

IP invested $90 million revamping the mill, which began operation at the end of June 2012 and has the capacity to produce 270,000 metric tons per year of high quality fluff pulp for the global market.

Besides Franklin, other mills in the southeastern U.S. have found the option similarly attractive, launching projects to convert to or increase their fluff pulp production. Domtar converted its Plymouth, North Carolina, paper mill to 100% fluff pulp in 2010, allowing it to produce 445,000 metric tons and making it one of the largest fluff pulp facilities in the world. The Parsons and Whittemore mill in Perdue Hill, Alabama, now owned by Georgia-Pacific, converted one line to fluff pulp production.

Decisions to repurpose these mills were likely influenced by a positive market outlook for the product, as determined by two key circumstances: the rapid growth of the middle classes in China, India and other Asian countries, and the nearly unique suitability of southern U.S. softwood fiber for this application. As incomes rise in the developing countries of Asia, there is a rapidly increasing demand for paper products, including baby care and personal hygiene products. The demand for more traditional paper products can be met by growing Asian production capacity, but fluff pulp can’t be made from the types of wood grown there. It depends for its absorbency on the kind of fiber that is typical of pine species grown in the U.S. South. These species, such as slash, loblolly and longleaf pines yield pulps having long, coarse, thick-walled fibers that confer high liquid absorption capacity.

The Wall Street Journal (Aug. 13, 2012) quotes consultant Rod Fisher as saying that global manufacturing capacity for...
fluff pulp totals 6.4 million tons, up from 4.5 million in 2007. More than 90% of global capacity is in the U.S.

**DISSOLVING PULP**

Not all mills are well positioned, either geographically or otherwise, to go the fluff pulp route. Instead, some have chosen to adapt to the changing commercial environment by converting their paper pulp production facilities to the production of highly purified grades that are nearly pure cellulose, so-called “dissolving” pulps. These pulps are in demand as feedstocks for the production of textile fibers such as rayon and cellulose acetate, as well as other products made by dissolving the pulp and then precipitating (“regenerating”) its cellulose in the form of fibers or films.

In a kraft mill formerly dedicated to making pulp for paper, the production of dissolving pulp requires one or more extra purification steps. The reason is that wood contains materials called hemicelluloses that are desirable in paper pulps but undesirable in dissolving pulps. Removing them requires an acid treatment (“prehydrolysis”) of the wood prior to the pulping step and, for the more demanding (acetate) grades, a strong alkaline treatment of the pulp. (Conversion of an existing paper pulp mill is not cheap – Internet news sites have mentioned figures ranging from $91 million to $210 million as the cost of converting Fortress Paper’s Thurso, Quebec mill and $250 million for Aditya Birla’s Terrace bay, Ontario mill.)

The demand for dissolving pulp is driven largely by growth in the market for textiles, principally rayon. Rayon is made by the viscose process, in which the pulp is converted to an alkali-soluble derivative (cellulose xanthate). The xanthate is dissolved in a solution of caustic soda, giving a viscous solution that is extruded through small holes into an acid bath where the cellulose is regenerated in the form of man-made textile fibers. Rayon is a versatile fiber that can be used in place of cotton for the manufacture of clothing. In fact, the price and availability of cotton are major factors governing investment in pulp mill conversions. Early in 2009, the price of cotton was slightly more than fifty cents per pound. It then underwent a steep increase, peaking at $2.30 per pound in March of 2011 before steadily decreasing to its current price of about $0.84. (See graph.) Since the price of dissolving pulp is tied to that of cotton, it was no coincidence that more than a million metric tons of dissolving pulp capacity came online in 2011.

In dissolving pulp, as in so many other arenas, the remarkable expansion of the Chinese economy emerges as a dominant factor. China, with limited fiber resources of its own, is seeing textile demand and production grow in lockstep with the growth in its economy as a whole. It is no surprise, then, that Chinese imports are expected to drive the dissolving pulp market.

As the demand for paper pulp decreases, the anticipated increase in dissolving pulp demand has caused many mills to convert their paper pulp lines to dissolving pulp. In a continuation of this trend, other mills are following suit. In spite of recent downward trends in the prices of both cotton and dissolving pulp, more than a half million tonnes of new capacity is expected to have come online during 2012, and more than a million tonnes is planned to start up during the years 2013 - 2016.

Whether the capacity increases will continue is an open question, but it seems likely that decreasing prices and margins, together with the looming specter of oversupply, will soon close this particular window of opportunity for paper producers seeking alternatives to traditional business models.

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Established in 2000, the Center for Paper Business and Industry Studies (CPBIS) at the Georgia Institute of Technology (GT) is a member of a family of 23 Sloan Foundation Industry Centers (www.sloan.org/program/34).

CPBIS is a tax exempt, non-profit entity designed to create and disseminate knowledge and further understanding of business, management, organizational and social issues of vital importance to the paper industry. It does so by simultaneously engaging key industry organizations and personnel and academic institutions’ representatives — principally through GT and its associated academic units and Centers, such as the Institute of Paper Science and Technology (IPST). For more information, please visit: www.cpbis.gatech.edu/.
energy management

Power Play

An energy management system can help a mill improve the stability and reliability of its operations, maximize net revenues from power sales, and reduce energy costs.

By Keith Masters

It's as true in pulp and paper as it is in many other industries: the continued rise in energy prices has put a squeeze on margin and profits.

Papermakers know that to maintain margin, they must effectively manage their energy costs. But many mills struggle to find the best ways to reduce what they pay for energy.

Mills can successfully manage energy costs by avoiding price peaks and penalty charges. Other tactics include using optimal resources to supply electric power; raising awareness of energy consumption and cost millwide; real time monitoring for early detection of poor performance against set targets; managing electricity purchase prices with accurate consumption plans and participating in the demand response market.

SOFTWARE OPTIMIZES ENERGY USE

An energy management system, such as ABB’s Energy Manager, is one of the best tools a mill can invest in for cutting energy costs. Mills using Energy Manager can typically achieve total energy cost reductions of two to five percent. To find a program that works for them, mills should look for software that includes planning and scheduling tools that help optimize energy use and supply; energy balance management tools to help procure energy at the best prices; and reporting tools to help monitor energy consumption, costs and efficiency. It’s also essential that programs use real-time system data.

Planning tools can predict energy consumption and calculate a corresponding energy supply schedule. Software can also balance time-varying energy consumption with supply resources.

In Energy Manager, power schedules are monitored in real time so that deviations or unexpected events can be detected and reported, helping minimize their costs. The energy planning module automatically recalculatesthe demand schedule based on changes in process measurements, production plans or user inputs. If an imbalance between predicted power consumption and planned supply is detected, the deviation may be balanced through additional power trading or automated process control.

The Power (Tie-Line) Monitoring module predicts total utility consumption within the current billing period by integrating and extrapolating the flow in the tie-line. If the predicted volume exceeds pre-set or calculated alarm limits, alarms will enable the operator to take action.

The system generates reports that help users quickly analyze energy and use. Performance reports can detail everything from the consumption and cost of utilities per hour/day/month/year to benchmarking to analysis of load profile and peak demand.

Energy Manager is completely scalable; this modular solution can start with basic energy monitoring and reporting at a single facility, and later expand to include multiple sites, or be implemented throughout the entire company to
optimize energy use and manage energy supply costs. A key component of this strategy is to tie in to sources of energy consumption, many of which are already captured in a plant level historian, others which require an OPC connection.

CASE HISTORY RESULTS

Cartonboard
In 2001 Mayr-Melnhof Cartonboard Group, a leading recycled cartonboard producer worldwide, implemented mill-wide energy management systems at seven board mills in Austria, Germany, the Netherlands, Switzerland and Slovenia.

The Mayr Melnhof managers are using the ABB information system to inform themselves in the morning about the events in the last afternoon and evening. “We use the system to manage energy, water, chemicals, compressed air, production and quality data and statistics,” explains Johan Maier, a staff person responsible for energy and water management at Mayr-Melnhof.

“The Energy Management system represents our connection between local processes and offices, and provides a handy instrument for optimizing the process and detecting failures more easily,” Maier noted.

“We are happy with the system and have ordered an upgrade this year in order to obtain further benefits,” he added.

Public Works
Public Works Government Services Canada (PWGSC) oversees government assets including office buildings and central heating and cooling plants, as well as high voltage, water and sewage distribution systems that vary in size, complexity and age. Its activities include delivering, verifying, planning and reporting on utilities and different grades of fuel for all of these facilities. PWGSC also deals with many different energy suppliers and energy commodities.

PWGSC found that their multiple budgeting, reporting, billing and planning systems could not effectively manage all the required energy and asset management activities. By adding an Energy Manager they could optimize energy costs. The system is capable to collect real-time data from different energy markets. Energy Manager tools support analysis of the cost impact of different combinations of electricity and natural gas purchased from different sources. This will help PWGSC negotiate and purchase different energy commodities directly from suppliers.

The availability of real time energy data of different complex buildings allows PWGSC to perform benchmark analysis of the performance of their buildings. PWGSC uses a wide range of reports including energy usage and cost by building. All of these activities add up to energy savings at PWGSC.

Pulp Mill
Zellstoff Celgar, Castlegar Pulp Mill in British Columbia (BC), Canada produces approximately 520,000 air-dried metric tons per year of NBSK pulp and is one of the largest and most modern single line kraft pulp mills in North America. The mill uses Energy Manager’s monitoring and reporting features to collect both in-plant energy consumption and the local utility (BC Hydro) data in the real time format. It is a report rich system which helps management understand the opportunity cost when they do not sell power to BC Hydro.

CONCLUSION

The main goals of the ABB system are to improve the stability and reliability of the operations, maximize net revenues from power sales, and reduce energy costs. At the same time, improve the overall coordination of the power plant and pulp mill operations.

Keith Masters is Business Manager, Pulp and Paper Systems, for ABB in Westerville, Ohio. He can be reached at: keith.r.masters@us.abb.com.
It was just over one year ago that Voith Paper opened its new Tissue Innovation Center (TIC) in Sao Paulo, Brazil. At the TIC, a completely renewed pilot facility now allows conventional tissue paper to be produced at up to 2,500 m/min and premium paper at up to 1800 m/min. As a result of the renovation, tissue makers from all over the world can trial the latest tissue technologies on a high-speed machine.

The official opening of the Tissue Innovation Center following its major rebuild and renaming was accompanied by a three-day program of events. An innovation workshop, in which Voith Paper experts presented the company’s latest technologies and strategies, took center stage. Around 150 company owners, managing directors and lead engineers from customers in Asia, Europe, North and South America took part in the event.

“We won’t just be doing research here on better quality and a faster, more efficient production process,” explained Nestor de Castro Neto, President of Voith Paper South America, in his opening remarks. “As in other areas, the R&D focus in tissue production is also about exploring how we can improve raw material and energy efficiency by means of new machine technologies and thus enable our customers to produce conventional and premium tissue for daily use in a cost efficient and resource-saving manner.”

Voith’s Tissue Innovation Center in Sao Paulo, Brazil offers tissue makers trials on the center’s newly rebuilt high speed pilot machine.

By Rogerio Berardi
HIGH-SPEED TISSUE

Following the comprehensive rebuild from pulper through to reel, the Tissue Innovation Center now houses one of the fastest tissue machines in the world. It enables maximum production speeds of 2,500 m/min for conventional dry crepe mode and 1,800 m/min in ATMOS mode (Advanced Tissue Molding System). This was achieved by increasing drying capacity as a result of installing a new Yankee cylinder and new drying hood.

The cast iron Yankee cylinder now has a diameter of 5.5 m (compared with 3.6 m previously). The larger size raises its drying capacity accordingly. Air systems and heat recovery units were also renewed. In addition, the tissue machine is fitted with a Voith Ultra Hood drying hood that allows temperatures of up to 650°C. This enables considerably higher production capacities than standard hoods and reduces power consumption.

For the first time, the pilot machine offers a fast and simple configuration change between its conventional mode and ATMOS technology that requires 60% less energy and 30% fewer fibers than conventional processes to make premium tissue. In addition, for greater paper softness, thickness and tensile strength, the headbox can be configured for one, two or three layers. The reel can be operated in conventional mode or with center wind reel, which ensures a uniform winding of premium tissue and maximization of bulk.

PRACTICAL TESTS

The benefits for tissue manufacturers are convincing. They can test the latest technologies on the pilot machine at the highest possible speeds. There has been particular interest in the application potential offered by ATMOS technology. The facility also offers the opportunity to carry out tests with conventional dry crepe technology at high speeds and to compare a multi-layer with a single-layer headbox in terms of softness and thickness. Moreover, tests can be run with the new NipcoFlex T shoe press, which reduces energy consumption for the production of conventional tissue paper by 20%.

The pilot machine has been fully booked since start-up. Most bookings come from international customers e.g. from Taiwan, Germany, Japan, Canada and the United States, and are enthusiastic about the new machine and the support services provided by the TIC, such as the associated laboratory.

Voith Paper itself is also using the renewed tissue machine for R&D work.

Visitors are briefed on the capabilities of the renewed pilot machine at Voith’s Tissue Innovation Center in Sao Paulo, Brazil.

Engineers at the R&D Center in Sao Paulo, which was established in 1994, have already developed numerous new components and processes. Their latest achievements include ATMOS technology and the NipcoFlex T shoe press, both of which help to achieve sustainable tissue production using fewer resources.

Rogerio Berardi is Sales & Marketing Manager, Tissue Machines for Voith Paper. He can be reached at: rogerio.berardi@voith.com.
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Commitment to Sustainability

At its annual meeting in Scottsdale, Arizona, AF&PA recognized five companies for their exemplary sustainability programs and initiatives.

The American Forest & Paper Association (AF&PA) presented its first ever Better Practices, Better Planet 2020 Sustainability Awards at the association’s annual meeting on Friday, Nov. 9 in Scottsdale, Arizona.

Designed to recognize exemplary sustainability programs and initiatives, the awards are to be given based on the merit of entries received across multiple categories. This year, five companies were chosen to receive awards.

“These awards symbolize our commitment to sustainability and the strides our members have made to constantly improve our business practices,” said AF&PA President and CEO Donna Harman. “We have long been sustainability leaders, and now AF&PA is recognizing the very best of our members’ leadership and innovation across the spectrum of what constitutes sustainability.”

“Thanks to our members’ efforts, we will continue to make progress toward achieving the industry’s sustainability goals, setting the bar for other industries.”

AF&PA member company applicants are considered annually in two categories — “Innovation in Sustainability” and “Leaders in Sustainability” — with six “Leaders” subcategories: Paper Recovery for Recycling; Energy Efficiency/Greenhouse Gas Reduction; Certified Fiber; Illegal Logging; Safety; and Water.

Projects that support progress toward the Better Practices, Better Planet 2020 sustainability goals qualify for recognition in the “Leaders” category; projects that merit recognition for their contribution to sustainable business practices but that do not specifically address one of these goals may be recognized in the “Innovation” category.

In July, AF&PA released its 2012 Sustainability Report, which showed that the U.S. paper, pulp and wood products industry has made significant, measurable progress toward achieving the goals of its Better Practices, Better Planet 2020 sustainability initiative. This is one of the most extensive collections of quantifiable sustainability goals for a major U.S. manufacturing industry.

For more information about the Sustainability Awards program and AF&PA’s Better Practices initiative, visit www.afandpa.org/sustainability.
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Kimonas past in R&D has given her in-depth insight, extending from molecules to full-scale production. But as she says, there’s no such thing as a magic wand. And that’s what makes the job fun. Every mill is different, and it takes close cooperation with your mill’s onsite operators to get the job done. Even at a distance!

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