Paper Drying
Identifying energy saving opportunities on the paper machine and in the mill

NEWSPRINT
Falloff in exports poses challenge to stability in North American market
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It’s OK to Print

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

In case you missed it, Toshiba on June 4 at the 2012 Sustainable Brands conference in San Diego announced that it had dubbed October 23, 2012 as the first annual National No-Print Day (NNPD).

In a written PR statement accompanying the June 4 launch of NNPD, Bill Melo, vice president of marketing, services and solutions, Toshiba America Business Solutions, Inc., said, “We know that approximately 336,000,000 sheets of paper are wasted daily — that’s more than 40,000 trees discarded every day in America. We as individuals and companies are failing to make the link between printing waste and its negative impacts on our landfills, natural resources and the environment. For those reasons, Toshiba is leading the charge with NNPD to raise awareness of the role of paper in the workplace by not printing at all for one day.”

I’m not sure who appointed Mr. Melo judge and jury to preside over which sheets of printed paper are deemed “waste,” but you can bet they’re not the ones his memos are printed on.

So why would a company that sells printers, ink cartridges, toner, etc., devise such a campaign? Easy; to create the perception that Toshiba is a fall-on-the-sword type of environmental hero, and if they make a few extra bucks from their quasi-green image, well who’s more when it comes to self-righteous green marketing is deceivingly used to promote the perception that an organization’s aims and policies are environmentally friendly. Whether it is to increase profits or gain political support, greenwashing may be used to manipulate popular opinion to support otherwise questionable aims.

I have to admit I didn’t see the NNPD announcement at the time it came out, but thanks to paper industry related blogger, D. Edward Tree, who maintains the blog Dead Tree Edition (http://deaddreeteedition.blogspot.com), his June 10 blog “10 Questions About Toshiba’s No-Print Day” got my attention.

As you can imagine, in the weeks following the unveiling of NNPD, the printing industry was rapidly losing that loving feeling for Toshiba and Michael Makin, president and CEO of Printing Industries of America, had a ‘discussion’ with Bill Melo. Mr. Makin pointed out that Toshiba’s ill-conceived campaign was a condemnation of the entire printing industry and the over 800,000 people who are employed by it.

After the two men talked things out, Mr. Makin released an announcement to his organization’s members, stating, “Mr. Melo was quite ‘concerned’ with how the campaign had been received by the commercial printing industry and stressed it was never the intent of his company to disenfranchise or insult our industry.

He explained that the campaign was always directed at the office marketplace where he opined there was needless waste.

“My retort to Mr. Melo was that if this was truly the case, his campaign should have been more specific. It was not promoted as “let’s save office waste day” but rather National No-Print Day. I argued this was tantamount to having a ‘Do Not Walk’ day or ‘Do Not Eat’ day and that the grassroots response from our industry was only to be expected.”

Just over two weeks after NNPD was launched, Toshiba aborted the campaign.

There are a number of lessons we can take away from all of this and here are a couple: 1) The masses aren’t so easily schmoozed anymore when it comes to self-righteous green campaigns from big companies, and 2) It’s OK to print — really!
Now you can “triple your winnings” in your deinking process by reducing chemical costs three ways with one additive! DEKA can replace up to half of costly surfactants, improve pulp brightness, and lower ink residual numbers as well.

Sound too good to be true? In documented mill tests DEKA has replaced fully 50 percent of expensive surfactant dosage without adversely affecting deinking performance. And laboratory studies prove DEKA usage can increase pulp brightness up to 5 GE brightness points. Plus, additional lab deinking tests have demonstrated ERIC values lowered by up to 74 percent.

DEKA is also versatile—flotation or wash deinking processes both benefit from this revolutionary deinking aid.

Contact Thiele today for details on how your deinking process might benefit from using DEKA. We’ll be glad to show you the test results and set up a trial in your mill.

Will you be the next deinker to hit the ‘trifecta’?
Verso and NewPage Don’t See Eye-to-Eye on Combining Companies

On July 2, Verso Paper announced that it had held discussions with certain holders of the 11.375% first-lien senior secured notes of NewPage in an effort to achieve a potential business combination involving Verso and NewPage as part of a consensual plan of reorganization in NewPage’s Chapter 11 bankruptcy proceedings.

“Verso believes that a combination with NewPage would create a stronger business in the global coated and supercalendered paper industry because of the material cost savings that would be achieved,” the company said in a statement.

However, on July 3 NewPage rebuffed the proposal stating, “During these discussions, an ad hoc group of second lien note holders presented to an ad hoc group of first lien note holders an unsolicited proposal to combine NewPage and Verso Paper Corp. After thoroughly evaluating this proposal, NewPage determined that the combination posed significant downside risks to its stakeholders, employees, and business. NewPage has also been advised that the first lien note holder group did not support the proposal. Accordingly, NewPage does not anticipate further discussions regarding this proposal.

NORTH AMERICA

Tembec to Idle Chetwynd Pulp Mill in September

Tembec announced that, due to market related conditions, it will indefinitely idle its high-yield pulp mill located in Chetwynd, British Columbia, Canada as of September 16, 2012.

A total of 115 employees are currently employed at the mill.

“The high-yield pulp market has continued to soften over the past year. At today’s price levels, it is virtually impossible to maintain viable operations given the current cost structure of the Chetwynd mill,” said Chris Black, Tembec Executive Vice President and President of the Paper and Paper Pulp Group.

“This is a difficult decision that we have not taken lightly since it has an impact on employees and on the region. We will continue to monitor the market and, in due course, reassess the situation accordingly,” he added.

High-yield pulp, also known as bleached chemi-thermo-mechanical pulp (BCTMP), is used in printing and writing papers, paperboard, as well as tissue and toweling.

Pulp produced at the Chetwynd mill is shipped to primarily Asia, Tembec said.

The Chetwynd mill, which was built in 1990, has an annual production capacity of 240,000 tonnes.

Tembec purchased the mill in 2002.

Appleton Papers and Hicks Acquisition Drop Proposed Business Deal

Appleton Papers Inc. and Hicks Acquisition Company II (HACII), a special purpose acquisition company sponsored by Thomas O. Hicks, announced they have agreed to discontinue their proposed business combination.

The proposed deal, which was announced on May 16, called for Hicks Acquisition Company to invest the cash held in trust, less expenses and amounts paid for certain repurchases and redemptions of its stockholders, to acquire an equity interest in Appleton. Proceeds from the transaction could be used by Appleton for reducing the amount of debt outstanding, capital expenditures to facilitate growth initiatives, reducing the amount of warrants outstanding or other general corporate purposes.

“Unfortunately, volatile market conditions prevented a deal from being struck that was acceptable to both parties,” said Mark Richards, Appleton’s chairman, president and chief executive officer. “Therefore, after consulting with Hicks’ management, we have decided to discontinue the transaction.”

Richards added, “We entered into negotiations with the best intentions to create a combined business that would strengthen Appleton’s balance sheet, support its businesses, and give the company greater flexibility to pursue growth opportunities. Achieving those objectives is still part of our strategy going forward, and we will continue to pursue them as market conditions improve.”

Richards confirmed that, in spite of the transaction not closing, Appleton will proceed with its plans to do business as Appvion, which the company also announced in May. The Appvion name combines the words “applied” and “innovation,” reflecting the company’s successful transformation from a paper company to a business focused on coating formulations and applications, and specialty chemicals.
Catalyst Paper Gains Approval from Creditors for Restructuring Plan

Catalyst Paper Corporation received the necessary creditor approval for its second amended plan of arrangement under the Companies Creditors Arrangement Act (CCAA) in Canada. Approval of more than 99 percent of secured and unsecured creditors was received in votes cast in person and by proxy at meetings held [June 25] in Richmond, BC.

“We have received support from a majority of stakeholders since we began the reorganization process and [the June 25] vote of support by creditors for the second amended plan of arrangement sets out a clear path forward,” said President and CEO Kevin J. Clarke.

“With the cooperation of employees, vendors, customers, pensioners and investors, Catalyst has been able to make progress through a very complicated situation at an unprecedented swift pace.”

“We’re now turning our attention to securing our exit financing and satisfying the remaining conditions of the plan with a target timeline to emerge from creditor protection in the near term,” he added.

Catalyst on Jan. 31, 2012 filed for an Initial Order from the Supreme Court of British Columbia to commence proceedings under the CCAA.

White Birch Paper to Reopen Stadacona Mill

White Birch Paper Company plans to reopen its Stadacona paper mill in Quebec City on August 2. The mill was idled on December 9, 2011 due to high operating costs and difficult market conditions.

The announcement comes after several months of joint efforts with the Government of Quebec and the Syndicat canadien des communications, de l'énergie et du papier (SCEP) Unionized employees, to obtain a sustainable operating plan.

“This marks a new beginning for the Stadacona mill. A second chance. One that was only accomplished through hard work and sacrifice by many,” said Christopher Brant, President of White Birch Paper.

“Compromises by all parties involved have resulted in a promising future for Stadacona. As a proud corporate citizen of Quebec, on behalf of both the company and its employees, I would like to thank Minister Hamad and the other members of the Provincial Quebec Government for the role they played in developing a sustainable solution,” Brant said.

The Stadacona mill has an annual capacity to produce 410,000 tonnes of newsprint, 95,000 tonnes of directory paper and 45,000 tonnes of paperboard.

Twin Rivers Paper Launches a Natural Packaging Paper

Twin Rivers Paper Company recently launched Acadia Natural, a compostable and recyclable paper made from unbleached pulp.

According to Twin Rivers, the product design offers a natural substrate for packaging applications such as fast-food sandwich wraps, french fry and carry-out bags, and basket liners.

FDA-compliant for direct and indirect food contact, Acadia Natural offers the optimal solution for Quick Serve Restaurant (QSR), food service, and retail food applications, where high performance and sustainability are essential.

For oil and grease resistance, Acadia Natural is available in an Acadia Natural OGR version. Both products bring excellent printability, runnability and convertability to packaging applications, the company noted.
**EUROPE**

**Korsnas Enters Agreement with Billerud to Merge**

Investment AB Kinnevik (Kinnevik) on June 20 announced that it signed an agreement with Billerud AB regarding a merger between its wholly owned subsidiary, Korsnas, and Billerud.

The combined company will be named BillerudKorsnas with headquarters in Stockholm, Sweden.

Per Lindberg, the current CEO of Billerud, will be CEO and President; Christer Simren, the current CEO of Korsnas, will be COO; and Susanne Lithander, the current CFO of Billerud, will be CFO.

Korsnas said in a statement, “The merger between Korsnas and Billerud is a natural step to strengthen Korsnas and Billerud’s successful businesses in virgin fiber packaging material with the aim to create a leading international player within the packaging industry. Kinnevik intends to be an active owner in the new company.”

“Korsnas and Billerud and their respective main owners identify significant synergy potential which is expected to be realized within the next few years as a result of the transaction. The synergy potential has been assessed to at least SEK 300 million annually in a preliminary estimate.”

Completion of the merger is subject to European regulators and the approval of the shareholders of Billerud at an Extraordinary General meeting expected to be held in August.

Korsnas operates three paper mills with integrated pulp production facilities. The company has a total annual capacity of 1.1 million tonnes of cartonboard and paper, with about 90 percent of sales to the export market.

Billerud produces kraft paper, sack paper, fluting, liner, liquid board, cup stock, and Nordic long-fiber bleached sulphate pulp.

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**UPM in Talks to Sell Assets of Stracel Paper Mill in France**

UPM in July started negotiations with VPK Packaging Group NV and Klingele Papierwerke through their newly created joint venture company, for the sale of assets and part of the land at the UPM Stracel paper mill site in Strasbourg, France.

According to UPM, VPK and Klingele have made an offer on the acquisition of assets.

A part of the deal calls for UPM to retain part of the Stracel real estate for potential future production of advanced biofuels.

VPK and Klingele plan to convert the Stracel mill into a recycled fiber-based containerboard plant, producing fluting and test liner.

The planned production of the mill would be approximately 300,000 tonnes per year.

The conversion from the current magazine paper production would require a considerable investment by the two buying companies, UPM noted.

---

**Palm Paper’s PM 7 Hits One Millionth Tonne of Newsprint**

Palm Paper announced that on July 6 PM 7 at its newsprint mill in King’s Lynn, UK, produced its one millionth tonne of newsprint.

In a statement, Palm Paper said, “This is a remarkable achievement and a milestone that has been reached far earlier than was the expectation at the start-up of the machine on the 21st August 2009. To mark the occasion the rolls produced for pressrooms throughout the UK will be labeled with special gold one millionth tonne labels in recognition of this achievement.”

The company noted that “PM7 has been running very stable at a constant speed of 1,875 meters per minute.”

With a width of 10.63 meters, PM7 has the capacity to produce 400,000 tonnes of high quality newsprint per year from 100 % recycled fibers.

In addition to the standard newsprint grades that Palm Paper supplies to all national and most regional publishers, the company has been developing a new grade which is marketed under the trade name of Palm Top. The product is being supplied to the heatset and gravure printing sectors and is used for the printing of magazines and commercial fliers and brochures.
NORTH AMERICA

Aditya Birla Group Agrees to Buy Terrace Bay Pulp Mill in Ontario

The Aditya Birla Group in July signed an agreement in-principle to purchase the assets of Terrace Bay Pulp Mill in North Western Ontario.

The company plans to convert the Terrace Bay Pulp mill to produce rayon grade pulp for export.

“The acquisition of the Terrace Bay Mill and its subsequent conversion into a dissolving grade pulp mill is a major strategic move,” said Kumar Mangalam Birla, Chairman, Aditya Birla Group.

“In the Viscose Staple Fiber (VSF) business, we enjoy global leadership. To sustain ongoing growth, we have an integrated business model, spanning the entire value chain from plantation to pulp to fiber. The Terrace Bay Mill, upon conversion, will be geared to provide superior quality pulp for our VSF plants worldwide," Birla said.

The Terrace Bay Mill was placed under Companies Creditors Arrangement Act in January 2012. The Aditya Birla Group is to make this acquisition through a Special Purpose Vehicle, AV Terrace Bay Inc. (Canada). Grasim Industries Limited proposes to hold a 40 percent stake in AV Terrace Bay Inc and the remaining 60 percent is proposed to be held by Thai Rayon Public Co. Ltd., Thailand.

According to Aditya Birla, during the next three years, Grasim would be contributing $44 million, out of the total equity contribution of $110 million.

Aditya Birla said that it will be investing more than $250 million in a phased manner to convert the mill to produce dissolving grade pulp with a capacity of 280,000 tpy. Until the conversion, which is likely to happen in 2016, the mill will produce and sell paper grade pulp.

Aditya Birla plans to restart the mill by October 2012.

The deal is subject to court approvals in Canada and other regulatory approvals in Canada, Thailand and India, and expected to close by July 31, 2012.

Sofidel Agrees to Buy US-based Cellynne

Sofidel and Cellynne in July reached an agreement for the sale of the Cellynne Paper Manufacturer to Italy’s Sofidel.

The purchase price was not disclosed.

The agreement covers the acquisition of the shares of Cellynne Holdings Inc. with the manufacturing facilities in Haines City, Florida, Green Bay, Wisconsin and Henderson, Nevada.

Sofidel is the second largest producer in Europe of tissue.

The deal is subject to regulatory approval.

RockTenn Closes Acquisition of Mid South Packaging

RockTenn has closed on its acquisition of the assets of Mid South Packaging LLC, a specialty corrugated packaging manufacturer with operations in Cullman, Alabama, and Olive Branch, Mississippi, from Coridel Capital Partners.

“The acquisition of Mid South, a company well-known for its profitable business model and efficient, well-run operations, is in keeping with our announced strategy to seek acquisitions that increase our integration level,” said Jim Rubright, RockTenn’s Chairman and CEO.

Mid South is comprised of three main segments: AutoLogic™, which supplies specialized packaging to the automotive parts industry; the ComboPAC™ Food Group, which supplies bulk boxes to the poultry and meat industries; and the Retail Design Group, which provides high-end corrugated packaging and retail displays to consumer packaged goods companies.
**ASIA**

**Nippon Paper Group and SCG Paper Form JV in Thailand**

Nippon Paper Group and SCG Paper have agreed to form a joint venture in Thailand to produce machine glazed paper.

Nippon Paper Group will hold a 55% equity stake in the new company.

According to Nippon Paper, the joint venture company, Siam Nippon Industrial Paper Co., Ltd., plans to install a new paper machine with an annual production capacity of 43,000 tons on the existing SCG Paper production site.

Total investment of the joint venture is 2,200 million THB (approx. 5.5 billion yen)

Start-up of the new machine is scheduled for the first quarter of 2014.

**EUROPE**

**EC Approves SCA’s Acquisition of GP’s European Tissue Business**

The European Commission has given the green light to SCA’s acquisition of Georgia-Pacific’s European tissue business.

The purchase price totals EUR 1.32 billion on a debt free basis.

GP’s European tissue operations have about 4,700 employees.

According to SCA, GP’s European tissue business, which includes 15 plants located in seven countries and the well-known Lotus brand, transferred to SCA’s ownership in connection with the closing of the deal on July 20.

SCA noted that the EU’s clearance requires divestment of Georgia-Pacific’s consumer tissue business in the UK including production capacity, Georgia-Pacific’s Benelux consumer tissue branded business under the Lotus brand and some of Georgia-Pacific’s and SCA’s retailer branded business in Scandinavia including production capacity.

**INDUSTRY SUPPLIER**

**Buckman Wins Presidential Green Chemistry Challenge Award**

At ceremonies in Washington, D.C., Buckman was presented with the Presidential Green Chemistry Challenge Award from the EPA for its Maximyze® enzymes comprised of natural catalysts to reduce energy and decrease the amount of wood fiber needed to manufacture high quality paper and paperboard.

The award, the second for Buckman, is in the Designing Greener Chemicals Award category.

Buckman’s Maximyze technology consists of new enzymes and combinations of enzymes which allow for more sustainable production of paper and paperboard with improved strength and quality. According to the company, these enzymes are derived from renewable resources and produced by fermentations, rather than typical chemical reaction methods. Maximyze enzymes provide a completely new way to increase paper strength.

“We are proud to be recognized by the EPA for our work on Maximyze with this prestigious award,” said Kathy Buckman Gibson, chairman of Buckman. “This award is particularly rewarding to us because it reflects success in both sustainability practices and product innovation.”

**INDUSTRY SUPPLIER**

**AstenJohnson Launches Paperchine Quantum Solutions**

AstenJohnson recently formed Paperchine Quantum Solutions (PQS) — a new engineering, analytical services and consultancy company that will offer a unique range of diagnostic and technical expertise to help papermakers improve machine efficiency and performance.

Paperchine Quantum Solutions will function as an independent business and will be led by Vice President Jean Pierre Bouchard.

PQS will focus its efforts in four key areas, including: 1) Audits that examine all facets of the paper machine, from stock approach through winding, to evaluate mechanical, hydraulic and structural conditions as well as process capability, 2) Process improvement and optimization using on and off-line data analysis, diagnostic and statistical tools to provide machine operators with the forward-looking process information necessary to increase overall equipment efficiency, 3) Engineering services to support customers in defining and planning capital investments needed to achieve productivity and quality objectives, and, 4) Education services on papermaking, statistical process control and Lean and Six Sigma protocols that give novice and seasoned papermakers the opportunity to expand their skills and expertise.
Central National-Gottesman Acquires Spicers Paper and Kelly Paper

Central National-Gottesman (CNG), in an agreement in June with a subsidiary of PaperlinX, acquired its U.S. paper operations Spicers Paper, Inc. and Kelly Paper Company.

Terms of the deal were not disclosed.

Spicers Paper, headquartered in Santa Fe Springs, California, is a major U.S. paper distributor with 12 warehouse locations in the West and Midwest.

Kelly Paper, headquartered in City of Industry, California, operates a chain of paper stores with 48 locations across four Western states.

According to CNG, combined sales for both companies were approximately $500 million in the companies’ most recent fiscal year.

“Spicers and Kelly are well-managed and respected businesses, and we are thrilled to have the opportunity to acquire them,” said Ken Wallach, Chairman and CEO of CNG.

“The existing management and staff of Spicers and Kelly have done an outstanding job. These are excellent businesses and we intend to operate both of them as they are, and under their existing brands,” Wallach added.

PaperlinX Selling Operations in Europe and South Africa to Heinzel; CEO to Step Down

PaperlinX said that it has concluded its Strategic Review, which started about 12 months ago, and entered into the following agreements: 1) the sale its operations in Slovakia, Hungary, Slovenia, Croatia and Serbia to the Heinzel Group for EUR 19.6 million; 2) the sale of its loss-making operations in South Africa to local management.

“After the sale of five smaller European businesses and the consistently loss-making South African business, our remaining businesses all operate in sizable markets with significant market positions. All have growth opportunities in diversified products and are the focus of the previously announced restructuring activities,” said Toby Marchant, CEO of PaperlinX.

“We can now direct our limited resources to these challenges and opportunities whilst at the same time ensuring that we have sufficient liquidity both regionally and for the Group,” he said.

Richard Barfield, Chief Financial Officer, added, “The disposals in Eastern Europe and South Africa are expected to close over the next 3 months, subject to competition clearance for both transactions and exchange control clearance for South Africa. The additional liquidity generated will further reinforce our ability to improve financing arrangements and margins in Europe, as well as providing additional funding to support accelerated restructuring and diversification.”

CEO to Step Down

Marchant concluded, “We have reached a major turning point in the transformation of PaperlinX, and the Board and I have agreed that it is an opportune moment for me to step down as Chief Executive. I will therefore be leaving the company at the end of July. I am doing so knowing that we have taken major strides towards dealing with our significant legacy issues, in the midst of exceptionally hostile conditions, and that we are now on the right path.”

Dave Allen, currently Executive Vice President of PaperlinX with responsibility for the UK, Ireland and Canada, has accepted the role of Interim Chief Executive. Allen joined PaperlinX in 2004 and was previously Managing Director of the Robert Horne Group in the UK.

PaperlinX said that it has initiated a search for a permanent CEO, and will review both external and internal candidates.

Watch this television interview to see how it’s changing papermaking.

www.youtube.com/watch?v=qJB-Vns7fjE
Wood Fiber Costs for European Pulp Mills Down in the First Quarter of 2012

Wood costs for many European pulp mills have fallen the past six months as the pulp market has weakened. In the Nordic countries, pulplolg and wood chip prices have fallen 11-15 percent from last spring. Despite the price decline, Europe continues to have some of the highest wood fiber costs in the world.

Wood fiber costs for pulp mills fell in practically all major markets of Europe in the first quarter of 2012 because of weaker pulp markets in late 2011 and early 2012. Last year, wood costs in many countries on the continent, including Sweden, Norway, France, Austria, Germany and Spain, reached record highs, but in all those markets, prices for pulplolg and wood chips are now substantially lower, according to Wood Resource Quarterly (WRQ).

The financial instability in many economies in Europe is contributing to the increased uncertainty about the near future demand for pulp and paper on the continent and weakening pulp markets, so many pulp mills are trying to cut production costs to stay profitable. Wood fiber costs have fallen more than other costs (energy, labor and chemicals) the past six months.

Nevertheless, the wood costs are still by far the highest cost component when manufacturing pulp, ranging between 55-70% of total production costs for the major producers in Europe, according to Fisher International.

Because of the weaker pulp markets, many pulp mills in France and Germany reduced operating rates, resulting in lower demand for pulplogs last winter. This not only interrupted the almost two year trend of price increases, but actually contributed to a fall in prices — back to levels previously seen last summer. With the Euro weakening against the US dollar, wood prices in dollar terms have declined even more dramatically than in the local currency.

In Northern Europe, pulplolg prices have fallen between 11-15 percent from last spring depending on country and species. It has been difficult to be a forest owner in Sweden the past year, as prices have declined for both sawlogs and pulplogs. In parts of Sweden, it is not likely that pulplolg prices will decline much further as they are now reaching the same levels as those for energy logs.

Eucalyptus log prices in Spain have been on a steady decline for almost a year and the major fiber consumers have lowered the price they pay to landowners practically every month so far this year. In US dollar terms, the average cost for Eucalyptus logs has declined by 21% since its all-time-high in the second quarter of 2011, notes WRQ.

Despite the recent decline in pulpwood and wood chip pricing, pulp mills in Europe still have higher wood costs than many of their competitors around the world.

Wood Resource Quarterly (WRQ) offers comprehensive analysis of wood market trends for the international forest industry. Each report is approximately 50 pages in length and includes delivered sawlog prices and pulpwood prices and market information from all major regions of the world, including Europe, North America, South America, Oceania and Asia. The report also provides global indices of wood costs, global wood fiber market commentary, pulp grade fiber costs, and a summary of trade of wood chips around the world each quarter. For further information, visit: www.woodprices.com.
SEPTEMBER 10-12, 2012
ASPI Fall 2012 Meeting
Association of Suppliers to the Paper Industry
The Westin Charlotte
Charlotte, North Carolina, United States
website: www.aspinet.org

SEPTEMBER 10-12, 2012
China Paper 2012 Shanghai
Adforum AB and E.J. Krause & Assoc.
INTEX Shanghai
Shanghai, China
email: phoebe@ejkbeijing.com
website: www.chinapaperexpo.cn

SEPTEMBER 11-13, 2012
Sustainable Packaging Forum
Packaging Strategies
Sheraton Station Square
Pittsburgh, Pennsylvania, United States
Contact: Janet Martinelli
email: meetings@packstrat.com
website: www.sustainablepackagingforum.com

OCTOBER 1-3, 2012
BLRBAC Fall Meeting - 50th Anniversary
Black Liquor Recovery Boiler Advisory Committee
Crowne Plaza Hotel - Atlanta Airport
Atlanta, Georgia, United States
Contact: Barbara Holich
website: www.blrbac.org

OCTOBER 1-4, 2012
SuperCorrExpo 2012
TAPPI and AICC
Georgia World Congress Center
Atlanta, Georgia, United States
Contact: Kristi Ledbetter
kledbetter@tappi.org
website: www.supercorrexpo.org

OCTOBER 3-5, 2012
North American Forest Products Conference
RISI
Boston Park Plaza Hotel
Boston, Massachusetts, United States
Contact: Misty Belser
email: mbelser@risi.com
website: www.risiinfo.com/events

OCTOBER 30-NOVEMBER 2, 2012
PAP - FOR
Reed Exhibitions
International Exhibition Centre Lenexpo
Saint Petersburg, Russia
Contact: Elizaveta Artemova
email: elizaveta.artemova@reedexpo.ru
website: www.papfor.com

OCTOBER 31-NOVEMBER 2, 2012
International Containerboard Conference
RISI
Westin Chicago River North
Chicago, Illinois, United States
Contact: Misty Belser
Phone: (+1) 919-285-2800
e-mail: mbelser@risi.com
website: www.risiinfo.com/events

NOVEMBER 7-8, 2012
Specialty Papers Conference 2012
Pira International and TAPPI
Hyatt Rosemont
Chicago, Illinois, United States
Contact: Barbara Fowler
Phone: 207-807-5749
Website: www.specialtypaperconference.com

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Everything In Sight
According to a recent study published by Freedonia, demand for corrugated and paperboard boxes in the US is projected to exceed $36 billion in 2016. Gains will be driven by an overall strengthening of the US economy following the 2007-2009 recession. Through 2016, growth will benefit from expanded food, beverage and durable goods output, as well as from a rebound in construction spending, which will stimulate demand for goods and materials used in construction applications. Advances will also reflect a trend toward more expensive boxes such as corrugated types, folding cartons that offer high-quality graphics and printing, and boxes that are retail- or shelf-ready.

**Corrugated and solid fiber boxes to post fastest gains**
Corrugated and solid fiber boxes will post the fastest shipment gains through 2016, a result of their position as the shipping container of choice for a broad array of durable and nondurable goods. Though folding carton shipments will increase more slowly due to competition from other packaging formats, growth will accelerate from the performance of the 2006-2011 period based on improved manufacturing output in food and beverages in light of a strengthening economy. Good opportunities are also anticipated in such markets as chemicals and pharmaceuticals, and foodservice and carryout food. Set-up box shipments are expected to continue their long-term decline due to their higher cost relative to other box types and surging levels of imports from countries (such as China) with lower labor costs. Nonetheless, overall demand will benefit from the entrenched position of set-up boxes as upscale packaging for premium confectionery products and fragrances.

**Beverages, frozen foods to be fastest growing markets**
Food and beverages represent the largest single market for corrugated and paperboard boxes, accounting for 50 percent of total demand in 2011. The beverage and frozen food segments are expected to post the fastest gains, with sugar and confectionery, and grain mill product uses expected to increase more slowly.

Despite sustainability efforts aimed at reducing excess packaging by eliminating boxes and cartons or reducing the amount of paperboard used in food and beverage cartons, continued high oil prices and the good environmental profile of paper-based packaging will support ongoing use of boxes in the vast food and beverage market. The durable goods and nonmanufacturing markets are expected to post above average gains through 2016, supported by a recovery in the broader economy.

Moreover, a rebound in construction expenditures will drive demand for household appliances, furniture and other durable goods, as well as related boxes. The continuing popularity of online shopping will propel healthy gains for corrugated boxes used in the fulfillment of Internet sales.

**Good growth expected for inks, wax-free coatings**
Paperboard demand will rebound from the declines of the 2006-2011 period as output in the manufacturing sector improves. However, volume growth will be restrained by heightened use of lighter weight, high-performance containerboard in light of sustainability and cost control efforts. Among other materials used in boxes, above average growth for inks will be driven by trends favoring boxes with high-quality graphics. Healthy prospects are also expected for wax-free alternative coatings, which can provide the moisture resistance of conventional wax-coated boxes while being fully recyclable.

PAPER

- **Clearwater Paper** named **John D. Hertz** as Senior Vice President, Finance and Chief Financial Officer. He will replaces **Johnathan D. Hunter** who has been serving as interim CFO, and Mr. Hunter’s role and title remains as vice president and controller. Hertz most recently served as Vice President and CFO for Novellus Systems, Inc.

- **Cosmo Specialty Fibers** announced that **Scott Marshall**, former vice president of Operations Support for the Weyerhaeuser Company has agreed to join the board of Cosmo Specialty Fibers, Inc. Marshall spent 35 years with Weyerhaeuser, where he held several leadership positions within Timberlands, Wood Products, Corporate Planning, Region Operations, and Research & Development.

- **International Paper** has elected **Ilene S. Gordon** to its Board of Directors, effective October 1, 2012. Ms. Gordon is Chairman, President and CEO of Ingredion Inc. (formerly Corn Products International), a position she has held since May 2009. Ms. Gordon has also served as President and CEO of Rio Tinto’s Alcan Packaging, and has served in various senior executive roles at Alcan Packaging and Tenneco Inc.

- **Mohawk** has named **George Wurtz III** to its Board of Directors. Wurtz is currently CEO and President of WinCup Inc. He has held executive positions with Georgia Pacific, Fort Jameson, and James River before joining WinCup. Wurtz retired as an officer of Georgia-Pacific in 2006.

- **National Envelope** has named **Anthony Rizzo** as Senior Vice President of Sales and Marketing. Rizzo joins the company from Positive Promotions where he was Chief Operating Officer.

- **PaperWorks Industries** named **Mark Staton** as President and CEO, succeeding **Richard LeBlanc**, Interim President and CEO since January 2012. Previously, Staton was CEO of D&W Finepack. Prior to D&W Finepack, Staton spent six years as CEO of Associated Packaging.

- **SCA** has named **Josephine Edwall-Bjorklund** as its new Senior Vice President Corporate Communications, effective September 15. She currently holds the position of Vice President Communications at Ericsson Global Services.

- **Stora Enso** announced that **Parul Sharma** has joined the company as Vice President, Global Responsibility, for the Renewable Packaging Business Area. Sharma joins Stora Enso from Sandvik AB, where she has worked as Global Head of CSR Auditing.

RECOGNITION

- **John P. Jacunski**, Senior Vice President and Chief Financial Officer of Glatfelter, was named 2012 Chief Financial Officer of the Year by **Central Penn Business Journal**. The program honors financial executives who contribute to Central Pennsylvania’s economic growth and stability. Jacunski was the top winner in the large public company category.

INDUSTRY ASSOCIATIONS

- The **International Council of Forest and Paper Associations (ICFPA)** announced **Donna Harman** as its new President. Harman, president and CEO of the American Forest & Paper Association, will serve in this capacity for the next two years. Harman succeeds **Teresa Presas**, director general of the Confederation of European Paper Industries (CEPI), as ICFPA president.

INDUSTRY SUPPLIERS

- **Precision Roll Grinders** has named **Bob Giebner** an account manager, serving customers in the mid-Southeast territory. He will be based out of the Carrollton, Georgia facility.

- **Xerium Technologies** has appointed to its Board of Directors **Roger A. Bailey**, a veteran of the pulp and paper industry and currently President, Power Products, North America for ABB, Inc. Formerly, Bailey served as Group Vice President of ABB’s Pulp and Paper Business Unit.
Over the last year, or actually even longer than that, the North American newsprint market has maintained a surprising degree of stability despite the bleak news that continues about the customer side of the business. While newspapers have continued to look like an endangered species as they fight steadily eroding revenues, the overall market for newsprint has been fairly stable, with prices holding steady for almost two years, one of the longest such streaks on record. It appears, however, that to sustain this stability will require additional realignment on the capacity side as some holes have started to appear in the armor that has been protecting the market, i.e. the strong exports that had until recently gone a long way in offsetting the decline in domestic shipments.

As has been the case for some time, the fundamental challenge facing newsprint mills is a continued decline in newsprint demand. Through the first five months of the year, North American shipments have plummeted and are down 9.4% in the January to May period compared to 2011. May shipments were off by 11% vs. year earlier levels.

The current decline comes on the heels of an annual decline in North American newsprint shipments of 6.4% in 2011 to 4.987 million metric tonnes according to the Pulp and Paper Products Council. Shipments finished the year in a steep downward direction, falling 13.1% in December compared to 2010. North American demand fell 7.4% in 2011 to 5.0 million metric tons. This followed a 6% decline in 2010 as shipments slipped to 5.4 million metric tonnes according to PPPC.

Dilemma of Advertising Weakness

The culprit behind the decline of course is the continued loss of advertising revenues to other media. The loss in revenues is coupled with and caused by a continued decline in daily newspaper readership as more consumers get their news on the internet. The shift has been enabled by strong growth in smart phones and more recently by the explosion in use of tablets such as the iPad.

During the first quarter of 2012 newspaper advertising revenues fell 6.9% compared to year earlier levels according to the Newspaper Association of America. Newspaper print ad sales fell 10.5% in 2011, following a more muted 4.6% decline in 2010. As noted in last year’s column, it was hoped that the lower rate of decline in 2010 might indicate a slowing of loss in print ad sales. However, while digital ad revenues posted a 6.8% gain to $3.2 billion last year, total print ad revenues fell 9.2% to $20.7 billion. All major categories declined including national, retail and classified, which fell by 10.5%, 8.0% and 11%, respectively.

The biggest drop in classified ads in 2011 was registered by the real estate category, as the housing market continues to struggle. Automotive ads fell by 10.7% and the other category by 10%. If there was any good news in the data it was that employment advertising fell just 1.6%. However, the job ad category has fallen so far due to weak employment and continued losses to electronic job wanted services it’s now a minor category. Classified job ad revenue in 2011 was $0.7 billion compared to a level of $5 billion in the early 2000’s and $2.1 billion as recently as 2008.

The erosion of newspaper’s basic advertising business has led to continued structural change in the publishing business and all of the changes have been geared to minimize costs. These include downsizing sheet size and more recently the move by many papers to cut back the numbers of days published. All of these reduce newsprint demand.

Falloff in Exports Poses Challenge to Stability in North American Newsprint Market

Strong export demand has been a crutch holding up the North American newsprint market. As exports have eased in recent months it is raising concerns about the future direction of the market. Producers will have to work hard to maintain market stability if shipments continue to slide as expected.

By Harold M. Cody
On the bright side, when including digital editions, newspaper circulation data has shown surprising signs of resilience. According to the Audit Bureau of Circulations (ABC), total circulation for the 618 US daily newspapers tracked by ABC was flat for the six month period ending Mar. 31, 2012 due in part to the inclusion of digital subscriptions with print editions. Circulation among the 532 Sunday newspapers that reported was up 5%, ABC said.

**Dip in Exports Could Weaken Market**

While newsprint consumption by the key daily newspaper segment continues to contract, the main culprit causing more noticeable and worrisome problems recently has been the dismal performance of exports. Offshore shipments in May 2012 were down 28% compared to a year ago and off 26% year-to-date for the January to May period. The decline comes on the heels of a 6% drop in exports in 2011. Offshore volumes have accounted for 27% of total shipments in 2012 vs. 32% of total shipments in 2011.

The key role played by exports was highlighted in last year’s column on newsprint, where it was noted that a surge in exports literally saved the day for North America’s newsprint mills. In 2010, overseas shipments by North American mills rose 44% to 2.5 million metric tons. At the time, exports to Latin America rose 27%, and more than doubled to Asia, with shipments to each reaching nearly one million tonnes.

At the present time, newsprint supply exceeds demand in these export markets, due in part to the lower Euro and a weaker Indian rupee, and which have resulted in US$-based North American newsprint being less competitive. Asian shipments, not including those to Japan, are 39% lower in 2012 compared to the same period of 2011.

It should be noted that the drop in exports in 2011 is partly due to the shuttering of capacity by White Birch and SP. These capacity withdrawals late last year went a long way in supporting operating rates into early 2012 and were a big aid in sustaining prices even as exports fell and domestic demand dropped.

It’s also of interest that the drop in exports has completely overshadowed what is a surprisingly solid year in domestic newsprint demand. North American total newsprint demand was only off 2.3% in May 2012 vs. year earlier levels and 1.7% lower for the January to May period compared to 2011. However, according to various sources, these numbers don’t tell the whole story, as strong gains in the commercial printing segment, where demand was up almost 30%, have masked the decline from newspapers.

**Can Price Stability Continue?**

While the demand side has been ugly, with the help of exports and timely capacity shuts, producers have been able to maintain operating rates. In turn, one striking facet of the current market is that prices have been stable at about $640/metric ton where they’ve remained since late summer 2010.

But the overall outlook isn’t pretty. North American shipments will continue to slip and while exports remain high in absolute tonnage terms they will be lower than last year as the depreciation of key export currencies in Asia and the financial crisis in Europe make the export market a challenge. European newsprint demand continues to decline and is expected to shrink about 4% to 5% this year. This will continue to require significant capacity reductions there as well.

It appears that further capacity reductions will be needed to maintain any semblance of a balance of supply and demand and any hope for a much needed price increase since newsprint mills are also only marginally profitable. At a rate of decline of 7% annually on a base of 5 million m/tons, capacity would have to be reduced 350,000 tpy annually just to maintain the status quo. With the drop in exports that number increases substantially.

Capacity shutdowns are old news in the turbulent newsprint business but the situation going forward is even harder to predict than normal and may resemble a game of musical chairs. Someone may just be left without a seat depending on timing and will have to drop out of the game.

The uncertainty on the supply side is due to the fact that several major producers are in bankruptcy or headed that way including No. 2 producer White Birch and No. 4 SP. White Birch closed the 400,000 mtpy Stadacona mill in late 2011 and SP cut capacity 225,000 mtpy when it converted 40% of the Dublin, Georgia mill to kraft paper and board. With the Canadian dollar continuing to remain strong, other Canadian producers are also feeling the pain. A recent example was when Resolute indefinitely shut down newsprint capacity at Mersey (250k m/t) largely targeted at export.

Mills could also face major cost pressures and this could impact the need to raise prices as well as determine what mills are forced to shut down. Recycled fiber costs have slipped recently but ONP prices may head to higher levels according to industry sources who predict ONP will move back to 2011 average levels of about $145/short ton sometime this year. This could force some downtime or capacity withdrawals at recycled newsprint mills in North America. However, on a global basis, much more ONP is used by mills outside N.A. and thus this may actually benefit the many N.A. mills that predominantly use virgin fiber.

The bottom line is it appears it will be difficult for the market to be tight enough to support any major price increase without further capacity withdrawals. In fact, prices fell slightly by $10/mton in June on the west coast indicating how the market has eased. If the downward spiral of both demand and exports continues, significant cuts will be the only path available for producers to maintain a tight enough market to allow them to avoid a price decline, let alone achieve a much needed price increase.

_Harold Cody is a contributing writer for PaperAge. He can be reached by email at: HCody@paperage.com._
Russia and Its Neighbors

Russia, a vast enigmatic nation of huge resources and natural wealth and its neighbors, principally Poland, has the potential to be in the world’s top three forest, paper and packaging producers. But a familiar combination of underdevelopment, poor communications and suffocating bureaucracy, have contributed to the region’s unfulfilled potential.

Russia has the world’s largest forestlands with about 1 billion hectares of forest available as compared with Finland at 20 million, Sweden at 23 million and the US at 209 million ha. Its forests amount to about 21% of global forests, yet account for only about 3% of global supply and demand of forest products. It’s noteworthy to mention that a fifth of the country does lie in the Arctic Circle, which is obviously a challenging region for installing infrastructure.

However, Russia has a very competitive cost base — it’s cheaper than others — and it has a border with China.

Official Russian statistics imply that the output of forest products is about $14 billion of which $8 billion is exported. Brian McDonald of the Ilim Group said that Russia is positioning itself as a major player in the global pulp industry, especially as a major supplier to China. The new Bratsk pulp mill in eastern Siberia is 5000kms from Moscow but only 1500kms from Beijing. It is scheduled for start-up in the next nine months.

Currently, China is the largest single market for Ilim, amounting to 40% of its production. In contrast, the domestic market for Ilim is only 27%. China has a major deficit of forest reserves according to the UN/FAO and Poyry. It is 12% below even the base line of reserves.

McDonald pointed out that traditionally most Russian mills have been in the western region of the country and have been focused on supplying Europe. That has now changed. He admitted that Russia has been viewed as a difficult market in which to operate. I told him I once arranged to meet the manager of a pulp mill in northwest Russia who was trying to attract western investment. I waited at a hotel in St. Petersburg for two days but he never showed up. I learned later that he’d been murdered by a mafia that didn’t like privatization.

McDonald stressed that things are improving. A new forest code was adopted in 2007 which reformed forest legislation. Autonomy was devolved at regional levels and away from central bureaucracy. He claims this makes for faster decision-making. The Russian government is trying to harvest the natural resources it controls — wood being one of many. By doing so it actively encourages private sector investment and assures those investors that their assets will be protected. Even so, between 2004-2015, the industry needs $12.5 billion of investment.

This assurance has clearly satisfied International Paper and Sweden’s SCA. In 2006, IP formed a 50-50 joint
venture with Ilim, a deal that has worked out very well for both parties. Ilim owns Kotlas, Koryazhma and St. Petersburg board mill in the northwest and Bratsk and Ust Ilimsk in Siberia.

SCA has been in Russia since 1994 and dominates the hygiene product sector. In 2010 it started up its first tissue machine and a second will start up in early 2013. As living standards rise, and from quite a low base, SCA’s investment will certainly rise in step.

**Poland**
The only other major player in the region is Poland, whose industry has five major foreign investors: SKG (corrugated), SCA (corrugated and tissue), Stora Enso (packaging), Mondi (packaging) and IP (uncoated papers). Mondi (South Africa) is by far the largest investor in Poland with 1.23 million tpy of corrugated capacity. Mondi claims to be No. 3 for supply of both recycled board and corrugated packaging in what it calls “emerging Europe.” SCA states that with 15% of its corrugators in the region it is well placed to join in the high growth that Poland offers.

IP has been in Poland since 1992. That year a group of British banks held an auction of Polish mills in Warsaw at which this writer was present. A group of us went to see several mills but no one bought at the time. IP came in later, alone and unannounced and bought Kwidzyn. Mondi then followed and invested in the packaging and corrugated sector.

Unlike Western Europe, Russia and Poland so far have shown unexpected prospects in surviving the Euro crisis. So although I am still skeptical of Russia’s rapid development as a major global player in the near future, the presence of the foreign investors like IP, Mondi and SCA, and the financial stability in Russia and Eastern Europe, could mean that I may need to give this region a re-look in the next few years.

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steam has been and will continue to be used in the paper industry for drying paper and heating water. The high cost of energy has given focus to improving energy efficiency of paper drying for several years now. The primary uses of steam are likely to remain for years to come, but there are a number of innovative ways of handling the steam that are supporting the move toward energy efficiencies. These include replacing old shell-and-tube heat exchangers with direct steam injection heaters, the use of water jet heaters for recovery of waste steam in the efficient production of hot water for shower systems, and water jet condensers for improved steam system reliability and energy efficiency on machines that require high turn-down ratio for steam pressure control.

In addition, there have been numerous installations in which low-differential stationary syphons, high-efficiency thermocompressors, and proper steam system sizing and control were combined to provide significant reductions in energy costs. In addition to reducing steam venting, these systems have allowed high-pressure “motive” steam to be replaced with lower-pressure make-up steam, resulting in an increase in generation of electrical power.

So where you can you begin your journey toward improved energy utilization and efficiency? The following tips provide some areas of focus on and around the paper machine that feature low-cost or no-cost actions to optimize energy utilization and machine performance.

What is the best way to reduce energy costs?
The best way is not to use the energy in the first place. Increasing the dryness out of the last press nip by 1% can reduce the energy used in drying by 4%. Increasing press loads, optimizing press fabric design and operating life, installing shoe presses, and increasing the web temperature before the last nip will all help increase sheet dryness.

Do you see steam venting through the roof of your paper mill?
If so, you have found an opportunity for reducing energy costs. Follow the vent line and determine its source. Improving the dryer steam system balance, using condensate flash steam, and installing high-efficiency thermocompressors can greatly reduce the likelihood (and cost) of venting steam. And you save the condensate at the same time.

Are bigger dryer syphons always better?
Not necessarily. Dryer syphons can be too large as well as too small. The syphon size should be based on the dryer speed, condensing load, steam pressure, and style of syphon.
Many rotating syphons that were installed in the 1970-1980’s had syphon pipes that were too large for their applications. Even when operating at recommended differential steam pressures, the high blow through flow rates coming from these syphons can result in an inefficient steam system operation. Check your syphon sizing to be sure it is correct for your current operation.

**Are there opportunities to reduce energy costs when the machine is not producing paper?**
Yes. Dryers that are idling during warm-up cycles, sheet breaks, and maintenance downs can consume as much as 20-30% of the steam used when paper is being produced. To reduce these losses, dryer steam pressures and differential pressures should be adjusted automatically during start-ups, shutdowns, grade changes, sheet breaks, and normal operation.

**Energy costs give an indication of energy efficiency, right?**
Not quite. As production (tons per day) increases, the amount of water that must be evaporated in the dryer section also increases. The best indication of energy efficiency is the ratio of the energy cost to the machine production. It is better to monitor steam flow per ton of paper produced than simply the steam flow rate.

**If the dryer internals are not making any noise, are they okay?**
Not necessarily. Syphon shoes and syphon pipes can be badly eroded without the syphon components being loose inside the dryer. Eroded syphons result in high operating differential pressures, high blow-through steam flow rates, and flooded dryers. During annual dryer inspections, look specifically for eroded syphon pipes, syphon shoes, and syphon elbows (particularly those made of cast iron).

**Does it make any difference where the sheet is trimmed?**
Yes, it does. Whenever possible, trim the sheet at the wet end rather than at the dry end. This avoids drying paper that will not be sold. The best way to conserve energy is not to use the energy in the first place.

**Does it make any difference whether the steam pressure used to dry paper is taken from a high-pressure header or a low-pressure header?**
It might. Paper dries the same whether the steam was originally at 60 psi or at 160 psi. In a cogeneration plant, however, additional electrical energy can be generated from the high pressure steam if it is delivered to the dryer section at a lower pressure. It is much better to drop the steam pressure through a turbine-generator than across a pressure-reducing valve. Whenever possible, use the lowest source of steam pressure to meet the drying requirements.

**Do high dryer hood temperatures increase drying capacity and energy efficiency?**
No. The dryer hood air temperature must be high enough to prevent sweating and dripping, but higher air temperatures contribute very little to drying capacity. High air temperatures do, however, greatly increase the amount of energy that is consumed. In general, energy is being wasted if the dryer hood is operated at temperatures over 180-200 F (82-93 C). It takes only an adjustment of the temperature set point to begin saving money.

**Are high vacuum levels in the dryer section steam condensers better?**
Generally, no. The condensers in the dryer steam system are used to assist draining wet end, low-pressure dryers and in condensing excess blow-through steam from wet end and after-section dryers. Ideally, the condenser cooling water is heated to a level that is of value in other mill operations. Higher vacuum levels require more cooling water and result in a lower discharge water temperature. The vacuum condenser should be controlled to match the required dryer differential pressure. To save energy and water, do not run at a vacuum greater than is necessary to drain the dryers.
What is the best steam pressure for dryers that do NOT contact the sheet?

Dryers that do not contact the sheet should be disconnected from steam service. Bottom unorun dryers, return run fabric dryers, and Feeney dryers (intermediate dryers that do not contact the sheet) contribute very little to drying. Modern fabrics do not carry water and do not have to be dried by separate dryers. Although condensing loads are very low in non-contacting dryers, a lot of steam blows through the dryers, only to be vented from the steam system.

Ideally, fabric and Feeney dryers should be removed from the machine or at least disconnected from the steam system and blanked off. This saves steam joint maintenance and reduces energy consumption.

Note: Unheated bottom unorun dryers will be smaller in diameter than the heated top dryers. To avoid stress on the drive gears, bottom unorun dryers should be disconnected from the gear train by removing idler gears. This can be done on many dryer configurations, leaving the bottom dryers to be driven through the fabric.

What is the impact of sheet breaks and grade changes on energy consumption?

Significant. A machine wastes 1 to 2 tons of steam for every ton of broke that it produces. Reducing sheet break time helps. Eliminating sheet breaks helps even more. And getting back on grade as quickly as possible is particularly important for machines that have frequent grade changes. Unfortunately, getting back on grade is not easy. The thermal response of the dryer section is very slow. It takes a long time to change the temperature of 500 tons of iron.

Solutions using Dryer Management System® control software can reduce sheet break recovery times up to 20% using feed-forward control and other strategies. By monitoring the drying process, the target steam pressures and differential pressures can be set even before the moisture scanner is back on line.

What is the value of replacing older rotary steam joints and dryer syphons?

It is more than you may think. Leaking steam joints waste both energy and valuable condensate. Dryers that are valved off reduce the drying capacity of the machine. Older styles of steam joints have shorter seal life which increases the frequency for replacing parts, the labor to install them, and the downtime required for the work. If the syphons are oversized or eroded, the amount of steam that blows through the dryers will be greatly increased, often resulting in steam venting from the machine. If the dryer steam joints and syphons are over 20 years old, there is likely to be an opportunity for improvement.

How can a condensate flash tank be used to reduce energy costs?

When high-pressure condensate is collected in an atmospheric tank, a portion of the condensate “flashes” back into steam. The temperature of the condensate drops to 212 F and energy is lost with the flash steam. This energy, however, can be recovered. By adding a separator (a condensate flash tank), the flash steam can be collected and used in steam showers, shower water heaters, air heaters, and stock heating systems. This can be a low-cost way to save a lot of energy.

Modern steam joints and syphons are matched with the steam system to ensure high-efficiency dryer drainage.
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As adhesive technology becomes more and more complex and the demand for recycled content in paper products grows, papermakers are getting stuck with a bigger and bigger problem—stubborn stickies in their recycled furnish. Stickies downgrade quality, reduce output, and cost the pulp and paper industry tens of millions of dollars every year.

Buckman originally launched its enzymatic stickies control technology Optimyze® in 2004. However, in order to broaden applied areas, the company developed a new generation of enzymatic products called Optimyze Plus, which have shown improved performance in mill applications. The new enzymatic stickies control program is designed to break down macro and microstickies that can interfere with recycling, pulp, and paper machine operations and result in lost production.

Optimyze breaks down the ester bonds in stickies, detackifies the stickies and consequently prevents the sticky particles from re-agglomeration. Optimyze has been proven globally to be very effective for control of stickies in various kinds of secondary fibers.

Each time a fiber is recycled, the waste paper quality deteriorates. In addition, more synthetic chemicals are added in the papermaking process with the requirements for high quality paper. Meanwhile, under environmental protection pressure, machine systems are using less fresh water. All these factors make stickies more complicated in their components and more challenging to control.

Optimyze Plus contains not only multiple enzymes but also other chemicals effective for stickies control. It can be used in different kinds of secondary fiber stocks and for cleaning wire and felt as well. They are effective for various kinds of sticky complexes. All these characteristics provide papermakers flexibility to choose different formulations of Optimyze Plus to deal with different problems created by stickies.

Several case histories in various kinds of paper machines are described on the following page.

By Xiaohong Hou and Simon Zhao
CASE HISTORIES

CASE 1. Reduce dirt count and improve sheet quality.
- **Mill Information:**
  - Grade: LWC
  - Furnish: 5% NBKP + 30% BCTMP + 65% DIP
  - Waste paper: 70% ONP + 30% MOW
- **Problem:** High dirt count caused downgrade
- **Solution:**
  - Product: Optimyze Plus 745
  - Addition point: Final DIP storage tower
  - Dosage: 0.30-0.35 kg/ton (dry pulp)
- **Results:**
  - Dirt count in DIP was significantly reduced after Optimyze Plus 745 treatment
  - Finished paper quality was improved with fewer customer complaints

CASE 2. Improve machine runnability by reducing stickies deposit.
- **Mill Information:**
  - Grade: Newsprint
  - Furnish: 100% DIP
  - Waste paper: 85% ONP + 15% OMG
- **Incumbent product:** Optimyze 525 at 0.2 kg/ton
- **Problem:** Improve performance of incumbent Optimyze 525 for stickies control and optimize treatment cost.
- **Solution:**
  - Product: Optimyze Plus 745
  - Addition points: long fiber OCC Storage tower and short fiber OCC Storage tower
  - Dosage: To long fiber OCC: 0.25-0.35 kg/ton; to short fiber OCC: 0.15-0.25 kg/ton
- **Results:**
  - Sheet break reduced and machine efficiency increased from 94% to 97%.
  - The total downtime reduced.

CASE 3. Improve machine runnability by reducing stickies deposit.
- **Mill Information:**
  - Grade: low grammage corrugated medium
  - Furnish: 100% OCC
  - Incumbent program: dispersant and fixative
- **Problem:** Poor machine runnability and frequent sheet breaks due to stickies issues.
- **Solution:**
  - Product: Optimyze Plus 745
  - Addition points: Final DIP storage tower
  - Dosage: 0.30-0.35 kg/ton (dry pulp)
- **Results:**
  - Optimyze Plus 745 is more cost effective than Optimyze.

CONCLUSION

Optimyze Plus has been proven more cost effective for stickies control than first generation Optimyze due to its innovative formulation. It can be used for various kinds of secondary fibers and different stickies complexes. It not only broadens the application areas but also provides papermakers flexibility to select solutions to control stickies problems in order to improve machine efficiency and paper quality.

Importantly, Optimyze Plus helps reduce a paper mill’s impact on the environment. Enzymes are biodegradable, environmentally safe and tend to have very low toxicity characteristics.

*Editor’s Note: Optimyze technology is a past winner of the US EPA Presidential Green Chemistry Challenge Award.*

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Makers of the Dry-Tech® paper protection system as well as high quality coated and laminated paperboards and structures that can be converted for an array of value-added products: wax-alternative and other folding cartons, corrugated boxes, multi-wall bags and much more.

From standard applications to customized innovations, Cascades Sonoco offers a full range of options for functional barrier coating, lamination and coloring to meet your unique finished product needs and exacting standards.

Our parent companies were early pioneers in environmental sustainability and waste recycling long before such practices became fashionable or profitable.

Sonoco—Ranked one of the top 100 Green companies in the United States by Newsweek magazine; named to the Dow Jones Sustainability World Index in 2009, 2010 and 2011.

Cascades—Green by nature, incorporating over 70% of recycled fibers into its products; the leading collector, processor and marketer of recyclable materials in Canada and the 5th in North America.
Inspired chemistry for inspired results.

If you see AkzoNobel Pulp and Performance Chemicals (formerly Eka Chemicals) as a leading chemical supplier to the pulp and paper industry, you’re only seeing part of what we can offer your mill.

Our goal is to not only be the leading chemical supplier, but to establish close partnerships with our customers and deliver high performing, cost-effective and innovative solutions. We are also focused on helping customers reduce their use of energy, fiber, and water and we view this challenge as a very important sustainability goal. We believe the future of paper is bright.

**Pulp Mill**
As the largest producer of sodium chlorate and one of the largest suppliers of hydrogen peroxide, we’ve been a leading global supplier of bleaching chemicals and technologies for over 30 years.

Bleaching Services - with extensive pulp mill experience our team of experts can help you maximize your process efficiency and solve any pulp quality issues:

- brightness
- brightness reversion
- fluorescence
- strength
- dirt and pitch

Chlorine Dioxide Services - we deliver value and offer flexible service programs to meet all of your chlorine dioxide production and maintenance needs:

- optimization
- maintenance
- training
- regulatory compliance

Our team fully understands pulp mill operations and always has the knowledge to make optimization recommendations that benefit both your mill and your bottom line.

**Paper, Board and Recycled Fibers**
- Our focus is on being the global leader in silica-based retention systems. We are the creators of the patented Compozil® System for retention and dewatering.
- We help over 500 paper machines meet or exceed their performance goals every day.
- Compozil FX is the most advanced retention and drainage system for the world’s most modern paper machines.
- Our exclusive Monitrol® on-line retention measurement system is an industry standard for process control.
- Save chemicals, energy, water and money with our full range of advanced chemical injection systems.
- Our novel EcoFill™ technology allows you to achieve a high level of filler and enhanced strength.
- Replace talc and fixatives with Eka TR and ATC materials and cost-effectively control deposits.
- We offer an extensive portfolio of surface treatments and coating additives including the industry leading Eka Flow rheology modifiers.
- Our Eka RF products include all major types of deinking systems such as our novel neutral pH deinking system that allows you to reduce stickies and chemical costs.
- Our experienced, highly-trained staff can support your technical and process needs and is backed by a global network of manufacturing sites to supply your mill wherever you are.

For truly inspired papermaking, let AkzoNobel Pulp and Performance Chemicals guide you to the best solutions for your most challenging pulp and papermaking problems. Find out more at www.akzonobel.com/eka.

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Going Paperless May Not Be Better for the Environment

Before your company embarks on a marketing campaign to show the world the environment comes first, it’s essential to differentiate myth from fact.

Two Sides recently announced a nationwide initiative to assist major U.S. companies in developing and implementing best practices related to environmental marketing claims for print and paper. According to Two Sides’ research on 94 leading companies, 50 percent of them are using unsubstantiated environmental claims to encourage consumers to switch to lower-cost electronic billing and services.

“The objective of our new program is to offer our expertise at no cost to U.S. corporations who currently make environmental claims about print and paper relative to online billing and communication. Our research has shown that many companies are using negative claims that are not verifiable or factual related to the environmental impacts of print and paper, and as a result do not meet best practice guidelines for environmental marketing,” says Phil Riebel, President and COO of Two Sides.

“Two Sides and our 60 member companies are committed to sharing our collective expertise on the life-cycle and environmental impacts of print and paper. Our discussions to date have been very productive and the end result has been more accurate claims that are not damaging to the paper, printing and mailing sectors that provide over 8 million U.S. jobs.”

Two Sides, which represents companies across the graphic communications supply chain, will assist companies to develop and follow best practices for environmental marketing, including the use of science-based and verifiable information. The non-profit conducted a similar campaign in the United Kingdom with great success. More than 80 percent of the U.K. companies approached — including well-known names like British Telecom, Barclaycard, Vodafone and EON Energy — agreed to change their messaging to eliminate misleading or factually incorrect environmental claims about the use of print and paper.

“The fact is, print and paper products made in the U.S. have a great environmental story to tell,” Riebel says. “Paper comes from a renewable resource — trees grown in responsibly managed forests — and it’s recycled more than any other commodity, including plastics, metals and glass.

“The continuing demand for sustainably sourced paper gives U.S. landowners and families a financial incentive to continue managing their lands responsibly and keep them forested rather than selling them for development or other non-forest uses. Thanks in great part to the sustainable forestry practices advanced by the paper and forest products industry, the volume of growing trees in U.S. forests has increased nearly 50 percent over the last half century.”

“Many major U.S. companies have implemented credible sustainability initiatives that focus on true performance measurement and factual environmental claims,” Riebel says. “However, in some cases marketing seems to take the upper hand on science. Two Sides is committed to help change this, and our experience to date shows that we’ve been successful in finding mutually acceptable solutions.”

Two Sides is an initiative by companies from the Graphic Communication Value Chain including forestry, pulp, paper, inks and chemicals, pre-press, press, finishing, publishing and printing. Membership spans Europe, the United States and Australia. Its common goal is to promote the responsible production and use of print and paper, and dispel common environmental misconceptions by providing users with verifiable information on why print and paper is an attractive, practical and sustainable communications medium. For more information about Two Sides, please contact Phil Riebel at 1-855-896-7433 or pnr@twosides.info, or visit the Two Sides U.S. website at www.twosides.us.
As the industry leader in power, automation and service, ABB has the products, systems and people that can deliver solid results to improve your bottom line. It's a fact, more than 95% of the world's pulp, paper and tissue mills have ABB products. From simple instrumentation to complex systems, the industry trusts ABB. For your next project call ABB to explore what we can do for you.

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Inspiring paper all over the world is our inspiration. Meet us at eka.com.