Packaging Corporation of America’s Mark Kowlzan

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California’s Assembly Committee on Natural Resources has passed legislation that would prohibit stores from providing paper receipts to consumers except upon request, and violators would be fined. The vote on Assembly Bill No. 161 took place on March 25. The ‘ayes’ were 6, the ‘noes’ were 3, and ‘no votes’ were 2. AB 161 is now headed to the Assembly Privacy and Consumer Protection Committee.

If passed into law, AB 161 would take effect Jan. 1, 2022.

Supporters of the bill leaned on information from a report authored by Green America titled, “Skip the Slip: Environmental Costs & Human Health Risks of Paper Receipts with Proposed Solutions.” According to an amended version of the report, “3 million trees and 9 billion gallons of water in America are used to create proof of purchase receipts.” The report goes on to say “receipts generate 302 million pounds of waste and 4 billion pounds of carbon dioxide, the equivalent of more than 425,000 cars on the road.”

Kathy Lynch, on behalf of AF&PA, testified before the Assembly. “The environmental impacts of paper receipt usage written into AB 161, taken directly from a report by Green America, are demonstrably flawed and their assertions are speculative. Their claims are based on data from outside North America and their methodology for calculating water use, waste and greenhouse gas emissions is not peer-reviewed or accepted by the Life Cycle Assessment community and should not be enshrined into California law.”

AB 161 also included information from the Ecology Center, which stated that “93 percent of paper receipts are coated with Bisphenol-A (BPA) or Bisphenol-S (BPS)” chemicals.”

Lynch testified, “The health concerns about exposure to paper receipts is unfounded. U.S. producers do not use BPA in the manufacture of receipt paper and the major importers do not import papers that use BPA coatings. Scientific literature supports that exposure to BPA through receipts is within the Proposition 65 safe harbor thresholds. Chemical exposure and safety require very fact-intensive and science-based questions, which is why the legislature created the Safer Consumer Product (SCP) Program. The SCP is better equipped to deal with these questions than the legislature.”

In a document dated March 25, 2019 and titled “Assembly Bill Policy Committee Analysis” are lists of “Registered Support / Opposition.”

In support of AB 161: Azul (airline), Californians Against Waste, Comcash (grocery software suite including digital receipts), Defenders Of Wildlife, Educate.Advocate, Empower Family California, Environmental Working Group, Green America, and ReceetMe (a mobile platform for digital receipts).

Opposed to AB 161 were 26 businesses, associations and institutions, including: California Attractions and Parks Association, California Chamber of Commerce, California Fuels and Convenience Alliance, California Grocers Association, California Manufacturers & Technology Association, California Restaurant Association, California Retailers Association, California Travel Association, Family Winemakers of California, along with a number of paper producers, AF&PA, and others who may be affected by the bill.

I’m an advocate of preserving our environment, and if AB 161 is simply focused on source-reduction, then propose it as so, instead of building a case for the bill with unsubstantiated and exaggerated claims of environmental destruction and health risks, not to mention never looking into the ensuing financial implications its enactment may bring.

And speaking of financial implications, in that same analysis document, the Committee states, or should I say admits, “FISCAL EFFECT: Unknown.”
Packaging Corporation of America (PCA) continues being an exceptional company with a leader who has focus on the future and passion for operating excellence.

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Albany International is proud to be a supply partner of Packaging Corporation of America. Congratulations to Mark Kowlzan and the entire company on this distinguished award and much continued success.
Greif Completes $1.8 Billion Acquisition of Caraustar Industries

Greif, Inc. in February completed its previously announced acquisition of Caraustar Industries, Inc. Caraustar is a producer of uncoated recycled paperboard (URB) and coated recycled paperboard (CRB), with a variety of applications that include tubes and cores and a diverse mix of specialty products. Based in Austell, Georgia, Caraustar’s footprint includes over 80 operating facilities throughout the United States.

“I am pleased that we have completed the acquisition of Caraustar Industries and I welcome our new colleagues to the Greif team,” said Pete Watson, Greif’s President and CEO. “The addition of Caraustar bolsters our leadership position and enhances our existing portfolio of packaging solutions.”

Greif estimates that it will be able to achieve at least $45 million in cost synergies and performance improvements within the next 36 months through the integration of the former Caraustar operations into Greif’s existing business. Greif also anticipates that the acquisition will enhance Greif’s existing margins; be immediately accretive to earnings and free cash flow; and strengthen and balance Greif’s existing portfolio. Greif believes that integration risk is low given Caraustar’s operational adjacency to Greif and the strong cultural fit between the companies.

Golden West Packaging Group Acquires Allpak Container

Golden West Packaging Group LLC, a holding company for packaging businesses formed in 2017 by private investment firm Lindsay Goldberg, on March 6 announced that it acquired Allpak Container, LLC, a Pacific Northwest-based packaging provider.

Terms of the deal were not disclosed.

Allpak Container designs and manufactures high-end consumer packaging and industrial packaging for more than 450 customers in agriculture, beauty, beverage, commerce, food, health, industrial, recreation, and wine and spirits markets. Allpak serves customers in Washington, Oregon, California, Idaho, Montana and British Columbia from its two facilities near Seattle and Spokane, Washington. The facilities serve high-end consumer markets with large scale die cut, six color plus UV coating, and highly customizable flexographic printing capabilities.

Paper Excellence Canada Closes Acquisition of Catalyst Paper

Paper Excellence Canada on March 18 announced that it finalized the acquisition of Catalyst Paper Corporation. This includes Catalyst’s three facilities located in Crofton, Port Alberni and Powell River, its Surrey distribution centre and headquarters in Richmond, British Columbia, Canada.

“This acquisition is a continued step towards Paper Excellence Canada’s long-term growth plan within Canada’s pulp and paper industry and clearly demonstrates its commitment to the province of British Columbia,” said Brian Baarda, CEO of Paper Excellence Canada. “Together these combined operations will improve efficiency and sustainability in the forest industry in British Columbia and Canada.”

Catalyst Mills

- The Crofton mill is an integrated pulp and paper mill with two operating paper machines and two pulp machines. The mill has the capacity to produce 302,000 tonnes per year of newsprint and 336,000 tonnes per year of NBSK pulp.

- The Port Alberni mill has two paper machines and produces directory and lightweight coated paper. The mill has a production capacity of 340,000 tonnes per year of specialty papers.

- The Powell River mill has two paper machines and produces newsprint and uncoated mechanical specialty papers. The mill has a production capacity of 350,000 tonnes per years of specialty papers.

The deal expands Paper Excellence Canada’s product range to include printing papers, specialty and packaging papers, while increasing pulp production to its customers worldwide.
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NORTH AMERICA

White Birch Paper Closes Bear Island Newsprint Mill

White Birch Paper in mid-March ceased production at the Bear Island newsprint mill in Ashland, Virginia, which it had sold to Cascades in July 2018 for US$34.2 million. At the time of the sale, Cascades announced plans to reconfigure the mill’s newsprint paper machine to produce high quality recycled lightweight linerboard and medium. During the period prior to the start of the machine conversion project, White Birch intended to temporarily produce newsprint at the mill under a 27-month lease.

The mill employs about 140 people.

“The idea and attempt to keep the employees of Bear Island active through the mill’s transition in ownership and grade production has come to an unfortunate and premature end,” said Christopher Brant, president of White Birch Paper, in a statement released by the company.

White Birch said it will turn over control of the plant to Cascades “in the coming months as it continues to plan for the potential conversion of the mill in the future.”

Hugo D’Amours, a spokesman for Cascades, told the Richmond Times-Dispatch that Cascades still plans to start production of containerboard at the mill in 2021.

“It obviously would have been easier for us if the mill had run for a longer period and employees had remained on site for a longer period. We will evaluate what our needs are on site and we will try to keep the expertise needed,” D’Amours explained.

According to Cascades, the machine conversion will require an estimated investment of between US$275 and US$300 million, with production expected to begin in 2021. The project requires approval by Cascades’ Board of Directors, which the company said is expected in the course of 2019.

D’Amours noted, “Obviously, we will not be able to keep all employees, but we will try to keep in contact with them and bring them back when the containerboard machine is on site.”

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WestRock Expands Portfolio of Automated Packaging Systems

WestRock has expanded its portfolio of automated packaging system offerings with the acquisition of Linkx Packaging Systems. Linkx specializes in automated packaging machinery ranging from single-order dispatch systems to fully integrated automation. Its BoxSizer™ technology platform can right-size multiple sizes of cartons on the same machine without stopping for changeovers.

BoxSizer complements WestRock’s existing automated packaging systems portfolio, including its Box on Demand® solution. Where Box on Demand creates custom-sized boxes, BoxSizer reduces the height dimension of multiple-sized boxes with no changeover to reduce empty space, void fill, materials, labor and shipping costs. By removing excess packaging material, BoxSizer and WestRock’s other right-size technology solutions help customers reduce their shipping, warehousing and environmental costs.

“We’re excited to add Linkx and its BoxSizer technology to our automated packaging systems portfolio,” said Jeff Chalovich, WestRock’s chief commercial officer and president of its corrugated packaging business. “Linkx further differentiates our paper and packaging machinery offerings and helps us address the growing need for on-demand packaging, especially for e-commerce applications.”

ND Paper Fires Up #5 Boiler at Old Town Pulp Mill

ND Paper LLC announced that it has fired up the #5 package boiler at the Old Town kraft pulp mill in Maine.

ND Paper acquired the mill from OTM Holdings, LLC in October of 2018. After a series of phased capital investments, ND Paper expects the mill to restart in the first quarter of 2019 and ultimately produce 275,000 admt annually of unbleached kraft pulp.

“Our team [the last week of February] successfully fired our #5 package boiler. While this is one task of many yet to come, it marks a very important milestone in the journey to restarting the facility,” ND Paper said in a written statement.

“The #5 boiler is the first piece of major operating equipment to run in the mill since its idling in October 2015. Further, the mill will now be self-supplied with heat; up to this point, we’ve relied on portable heat units,” the company added.

ND Paper is a wholly-owned subsidiary of Nine Dragons Paper (Holdings) Limited, the largest containerboard producer in China and Asia.
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Brazil's Forest Products Sector Exported $10.7 Billion in 2018, Up 25.5% over 2017

The Brazilian Tree Industry (Ibá) announced that 2018 was a record year for the sector, with improved performance in exports and the trade balance. The sector exported US$10.7 billion — an increase of 25.5% over 2017. Increases were seen in exports of pulp (+31.5%), wood panels (+7.3%), and paper (+8.3%).

The trade balance for the planted tree sector stood at US$9.7 billion, which represents an increase of 28.4% compared to 2017. The sector’s share of the trade balance totaled 4.5% of all Brazilian exports combined and 10.6% of agribusiness exports.

The main market for Brazilian pulp continues to be China, which imported US$3.5 billion of this product, an increase of 37.7% compared to 2017. The paper segment is still focusing on exports to Latin America, where the value traded rose by 13.0%. Latin America is also the main destination for wood panels, with US$179 million of this product traded, an increase of 18.5%.

Below are the performance indicators for Brazil’s planted tree sector in 2018:

Production. Pulp production remained high, closing the year with the best performance in the history of the sector. Over the twelve months of 2018 21.0 million tons were produced, an increase of 7.7%. Paper remained stable, with 10.4 million tons produced throughout 2018; tissue paper rose by 3.7%.

Domestic Sales. Wooden panels sales continued to rise, with an increase of 2.9% over the accumulated value for 2017 and 6.7 million m3 sold in the domestic market. Meanwhile, domestic sales of paper held steady at 5.5 million tons (+0.5%).

MEXICO

Smurfit Kappa Opens New Folding Carton Plant in Tijuanay

Smurfit Kappa recently opened a new folding carton plant in Tijuana, Mexico, which will strengthen the company’s footprint in the Baja California region and neighboring Northern Mexico states.

The new Tijuana plant, which began operating in January, uses state-of-the-art technology to produce folding carton packaging solutions including boxes and trays. Diverse folding techniques are used to produce both flat and pre-glued products that meet customer’s needs in both the supply chain and retail environment.

Speaking at the opening of the new plant, Eduardo Rubio, Vice President of Packaging for Northern Mexico, said, “The inauguration of this important operation reflects the Smurfit Kappa Group’s long-term commitment to Mexico and its confidence in the growth of the country’s economy and its markets.”

The new Tijuana plant is Smurfit Kappa’s third in Mexico, where the company already operates one folding carton plant in Cerro Gordo and another in Naucalpan.
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KÄDANT
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VPK Packaging Group on Feb. 21 announced that it has reached an agreement with NPAC International Inc. to acquire the European and Chinese businesses of Corenso. Terms of the deal were not disclosed.

Corenso is an international manufacturer of high performance coreboard and cores with operations in North America, Europe and China and its products are used in a broad range of demanding industrial applications.

Corenso businesses in North America will continue to be owned by NPAC and will continue to operate under the Corenso brand.

Corenso’s European and Chinese businesses consist of two coreboard mills located in Finland and France, together with a network of 10 core and tube winding plants in Europe and 3 in China. Combined turnover is 170 million euros and the businesses have 850 employees in Europe and China.

VPK’s core and tube division is marketed under the Corex brand and has 14 sites for the production of industrial cores and tubes for winding paper, foil, textiles and metal. In addition, Corex also produces composite cans used for packing food, snacks, spices, cosmetics and spirits.

Following completion of the acquisition, the core and tube division will represent 260 million euros or 16% of VPK’s group turnover, with a total conversion capacity of 285,000 tons. Total production capacity of coreboard corresponds to 300,000 tons.

The acquisition of Corenso broadens the geographical spread to regions where VPK has not been active to date. Important new markets are Finland, Spain and China.

The agreement remains subject to customary conditions and is expected to be completed in second quarter of 2019.

Stora Enso Investing EUR 5 Million in New Molded Pulp Products Production Line

Stora Enso is investing EUR 5 million to build a new production line and related infrastructure to manufacture formed fiber products at Hylte Mill in Sweden.

The first products are expected to be on the market by the end of 2019.

Formed fiber products are manufactured from various chemical pulps and chemi-thermomechanical pulp (CTMP) by pressing it into a desired shape in a molding machine. The raw material is pulp made from wood from FSC and PEFC certified, traceable sources in Sweden and Finland. Stora Enso will manufacture the raw material at its mills in Sweden and Finland and do the converting at Hylte Mill. The initial annual capacity during the pilot stage will be approximately 50 million units of product with the intention to expand.

The production line will be operated by a new business unit for formed fiber which will also conduct research and development of new formed fiber materials and technologies. Potential products include single-use food packaging items such as plastic-free cups, bowls, clamshells, plates and coffee cup lids as well as non-food applications, responding to the needs of eco-conscious consumers looking for more environmentally friendly alternatives to plastic.

Metsä Tissue Exploring New Concept for Tissue Mill of the Future

Metsä Tissue has started an operational review of its mill operations that includes the development of the future tissue paper mill in cooperation with equipment and automation system suppliers. The concept’s development will include a review of all the operational processes of a tissue paper mill: raw materials, production, converting as well as dispatch and warehouse operations.

Jari Tiura, SVP, Operations, is responsible for the operational review.

The focus of the review is to determine if a new concept could significantly improve product quality, the efficiency of production and the use of resources. In creating the concept, the possibility to build fully fossil free mill will be studied. Also automation potential in the entire process will be reviewed together with the current status of mill systems and a development roadmap will be defined.

Ari Vehviläinen, VP, Operations, has been appointed project manager of the Future Tissue Mill project.
INDIA

China’s Nine Dragons Paper Signs MOU to Build Paper Mill in India

According to a news report in The Economic Times (Mumbai), Chinese paper and packaging manufacturer Nine Dragons Paper Ltd signed a memorandum of understanding (MOU) on March 2 with the Maharashtra Industrial Development Corporation to build a paper mill the Indian state of Maharashtra.

Maharashtra is located in west-central India and is best known for its capital, Mumbai (formerly Bombay).

The MOU was signed in the presence of chief minister Devendra Fadnavis and state industries minister Subhash Desai.

As per the MOU, Nine Dragons will invest Rs 4500 crore (approx. $636 million) over five years, a statement from the chief minister’s office (CMO) said.

INDUSTRY SUPPLIERS

Valmet Agrees to Acquire GL&V for $113 Million

Valmet in February entered into an agreement to acquire North American-based GL&V, a global provider of technologies and services to the pulp and paper industry. The enterprise value of the acquisition is approximately EUR 113 million on a cash and debt free basis subject to ordinary post-closing adjustments.

The acquisition is estimated to be completed at the earliest on April 1, 2019.

GL&V supplies technologies, upgrades and optimization services, rebuilds, and spare parts for the pulp and paper industry globally. The net sales of the acquired operations were approximately EUR 160 million and the EBITA margin was around 11 percent in calendar year 2018. The acquired operations employ about 630 people of whom approximately 65 percent are in North America and the rest mainly in Europe, South America and India.

GL&V’s washing, oxygen delignification and bleaching operations with Compact Press®, pumps and mixers technology for chemical pulping as well as the related Product Center in Karlstad Sweden are not included in the transaction scope.

Pasi Laine, President and CEO of Valmet said that the acquisition is a strong strategic fit and compliments Valmet’s technology solutions for the pulp and paper industry.

“The acquisition has an excellent strategic fit — it strengthens Valmet’s global services business, complements our technology offering and builds further our local presence and capabilities especially in North America,” Laine said.

Andritz Starts-up Modernized Board Machine at R.D.M. Arnsberg

Andritz recently started-up the modernized BM3 board machine in Arnsberg, Germany, for R.D.M. Arnsberg. The mill has the capacity to produce 220,000 tons per year of coated linerboard grades.

Andritz was responsible for the new design of feed system for the new headbox, adapting the required dewatering capacity, and for recirculation of the white water.

As a result of the upgrade project, BM3 will have a future production speed of 1,000 m/min and enable a significant improvement in the quality of formation as well as enhancing the profile stability of the top ply to obtain better processability of the finished products.

The scope of supply includes a PrimeFlow SW headbox for the top ply, including a new headbox pipe, new dewatering elements, as well as a new white water channel with white water tank. In addition to installation of new frame parts needed for the top ply wire, the couch press frame was also repaired and adapted to meet future production requirements.

The work on the press frame and installation of the entire Andritz scope of supply was performed by Andritz Local Service Mönchengladbach.
The corrugated packaging market is growing quickly, helped by the explosion of e-commerce and developments in digital printing technologies.

The global corrugated packaging market is growing faster than expected, confounding some predictions that forecast a slowdown in corrugated consumption. A downturn in demand in China and the banning of contaminated recycled paper stocks has not fully materialized.

Smithers Pira’s new report — *The Future of Corrugated Packaging to 2023* — offers exclusive analysis on how this market is increasing, growing around 3.7% annually to reach $300 billion in 2023. The report also reveals that the electrical goods end-use sector will see the highest levels of growth.

**E-commerce**

E-commerce retail sales are continuing to rocket, with estimates of around 20% annual growth in e-commerce trade in Europe.

Global online sales are expected to be over $5.5 trillion in 2023. This will have a profound impact on packaging demand, especially in the corrugated industry as it represents 80% of demand in e-commerce.

The increasingly complex logistics chain for direct to consumer delivery — e-commerce packages are expected to be handled up to 20 times or more during standard distribution — means there is new demand for cost-effective secondary corrugated board packaging.

Demands from brand owners are now being felt by the converting industry as many brands now require the secondary pack to carry their image into the home, not just the retail outlet. This increases the need for converters to produce high-quality graphic designs on the shippers themselves.

**Fit-to-Product**

Born out of e-commerce has been the advent of fit-to-product (FtP) or box-on-demand systems, driven in particular by the needs of dedicated e-commerce sellers such as Amazon and Staples. This technology enables the production of customized...
secondary packaging based on the exact size of the product being packed, including irregular shapes. For the end-user this eliminates the need for large inventories of standard-sized boxes which often require copious amounts of filler material.

As FtP platforms become more popular, there will be more demand for boards sold as fanfold, as well as finishing equipment, such as printers, that can operate with them.

Major moves are being undertaken to capitalize on this growth market. WestRock for example acquired Plymouth Packaging. Based in Michigan it derives 70% of its sales from its box-on-demand systems and corrugated fanfold, together with its equity interest in Panotec and exclusive right to distribute Panotec’s equipment in the US and Canada.

Sustainability
Corrugated board is proving popular in packaging as sustainability becomes a more important issue across the value chain — it is easy to recycle and the pulp and paper industry is already adept at converting these into new generations of containerboard. These qualities mean there has been a rise in popularity of corrugated protective formats over polymer based alternatives, such as expanded polystyrene (EPS) foams.

While lightweighting of board has long been affecting the corrugated industry, rightweighting, and rightsizing are playing an increasingly important role in this market, not only in response to consumer demand for efficient packaging, but also in response to the logistics chain’s adoption of dimensional weight (DIM) pricing. In some instances, substituting to a heavier board grade can have a beneficial impact overall as it allows for the elimination of additional protective elements.

The desire to minimize the volume of air being shipped within all delivery channels means that in some instances there have been significant cost increases. For example, a 32-pack of toilet rolls costs an estimated 37% more to ship using charges based on dimensions, rather than simple weight.

Lightweighting has been particularly successful in Western Europe, where box weights are now typically about 80% of US weights. The importance of lightweighting will continue to be felt over the coming years as retailers look to save costs as well as appealing to end users.

Retail Changes
Retail-ready packaging has established itself as a major cost saver for retailers, especially in Western Europe. This ongoing profit pressure is providing an impetus to use more retail ready formats as a labor-saving solution, as it is estimated that these secondary packaging formats can reduce shelf restocking and handling costs by up to 50%. It is also particularly popular with sales into convenience stores or discount retailers such as Aldi and Walmart. For brands, it gives the added bonus of giving them greater control over the presentation of their goods within the retail space.

The expansion of e-commerce trade into the grocery sector is likely to have a slight impact on retail-ready packaging use as online sales do not require these pack types.

Corrugated cases will still be used to ship goods to an online retailer’s warehouse or ‘fulfilment center’ but these do not need to be retail-ready formats. The emergence of subscription box and meal kit services — which offer direct-to-consumer delivery of specialist food using a weekly or
monthly subscription — are providing some new opportunity for corrugated board suppliers with delivery-friendly formats containing goods within a die-cut interior.

Digital Printing Advancements
As the digital print market matures, the corrugated sector, while still in its infancy, has developed a growing appetite for adoption of the process, and systems are now being developed to address the demands of the high-volume liner and post-print markets.

The flexibility of run-lengths, savings in set-up costs, the ability to personalize either relating to brands, regions, stores or individuals, and the level of quality now available through the latest technologies all combine to create a ‘perfect storm’ of growth opportunities for converters and printers.

Brand owners are recognizing the opportunities to grow dwindling brand loyalty through greater engagement with their customer base provided by these technological developments, and industry leaders see packaging as an important component in the creation of a memorable shopping experience that users will want to share via social media, which can drive marketing, encourage repeat business and attract new customers.
Cascades, Inc. has appointed Jean-David Tardif as President and Chief Operating Officer of its Tissue Group. Tardif takes over for Jean Jobin, who, after a 26-year career, leaves the company to “devote time to personal projects.” Tardif joined Cascades in 1997 and most recently held the position of Vice-President, Operations for Cascades Containerboard Packaging.

Domtar has named Marty Barfield as Manager of the company’s mill in Kingsport, Tennessee. Since September 2015, Barfield has been the Plymouth Mill’s pulp production manager. He brings more than 30 years of experience to this role. Also, Domtar has named Marty Burkhardt as Manager of the Nekoosa, Wisconsin mill. Burkhardt previously was Nekoosa’s operations manager.

Midland Paper, Packaging & Supplies has appointed David Goldschmidt as President of its Midland National division. Prior to this, Goldschmidt was a Senior Vice President of Midland National. Goldschmidt succeeds Jim O’Toole, who has been promoted to corporate Executive Vice President, Publishing and Consulting.

Södra announced that Gunilla Saltin, President of Södra Cell, is leaving the company for a new role as Technical Director at Mondi, based in Vienna. Magnus Björkman, President of Södra Cell International, has been appointed Interim Business Area President and will also, therefore, be a member of Group Senior Management.

Twin Rivers Paper Company has named Ken Winterhalter, who currently serves as the company’s President, as Chief Executive Officer. Winterhalter joined Twin Rivers in 2013 and succeeds Robert (“Bob”) Snyder, who has been named Chairman of the Board. Winterhalter has served as Twin Rivers President since 2013.

WestRock announced that Jeff Chalovich, President, Corrugated Packaging, has assumed the role of Chief Commercial Officer in addition to his leadership role of WestRock’s Corrugated Packaging segment. Pete Durette, Executive Vice President, has assumed the role of leading WestRock’s corrugated container business within the Corrugated Packaging segment, reporting to Chalovich. Tom Stigers continues in his role as Executive Vice President of the containerboard mills.

The American Forest & Paper Association (AF&PA) announced the election of Pete Watson, President and CEO of Greif Inc. as the new AF&PA Board Chair. Watson has been President and CEO of Greif since November 1, 2015, having previously served as Chief Operating Officer for Greif. Since joining the company in 1999, Watson has held a number of executive positions, including Group President for Paper Packaging, Land Management, and Global Sourcing and Supply Chain.

William “Bill” Meany, President of Lindenmeyr Munroe, was recently named NPTA’s 2019 Stanley O. Styles Industry Excellence Award winner. Meany was presented with the prestigious award at Paper2019 in Chicago. Meany has been with Lindenmeyr Munroe since 1978, when he joined the company’s sales team.

Lisa Yankie, Vice President of Human Resources for Domtar, was recently named to the board of directors of the Women in Manufacturing® Association – the only national trade association dedicated to supporting, promoting and inspiring women who have chosen a career in the manufacturing industry. During her three-year term, Yankie will work with the organization to advocate for women choosing careers in the manufacturing sector.
Spring is the season of new growth. And, on behalf of our manufacturers and their thousands of dedicated employees, we’re busy planting seeds for a number of objectives that we hope to grow into supportive public policy this year.

That work began in January with the announcement of our advocacy priorities — recycling, transportation infrastructure, trade, tax and regulatory process reform. On these areas and others, we aim to help implement public policies that support our companies’ efforts to contribute to economic growth and American manufacturing jobs.

But, such goals won’t come to fruition without a well-executed plan. That plan includes partnering with key decision makers on Capitol Hill, in the Administration, in state legislatures and across the industry. There’s no finer example of a strong partnership than the Pulp and Paperworkers’ Resource Council (PPRC).

Now is a great time to report on the progress we’ve achieved together and keep you in the loop on other projects and initiatives.

From Feb. 5 - 8, during their annual Washington, D.C. Fly-in, more than 80 PPRC members — men and women representatives of 51 mills across 17 states — visited more than 350 Members of Congress and the Administration. Our collective hats go off to them for their dedication to educating decision makers on how legislative policies directly impact our industry.

That’s a lot of steps through the hallways of the House and Senate and included a Feb. 7 reception at the U.S. Capitol hosted by AF&PA’s Board of Directors, the PPRC and the Congressional Paper and Packaging Caucus.

It’s exactly the type of work that preceded the Feb. 14 House and Senate vote to pass federal appropriations
legislation, reaffirming that regulatory policy should reflect the carbon neutrality of forest-based renewable biomass.

The fiscal year 2019 appropriations language, signed into law by the President, recognizes long-standing scientific principles and appropriately reflects the paper and wood products industry’s use of carbon neutral biomass for energy production.

We are one of the largest manufacturing sectors in the nation and deserve clear public policy to help us apply sustainable manufacturing practices to invest, innovate and stay in step with global competition. We look forward to working with the Environmental Protection Agency, the Department of Energy and the United States Department of Agriculture to fully implement this Congressional directive.

AF&PA’s work does not stop at the Capitol Beltway. To date, we have advocacy days planned for Oregon and Illinois where we’ll gather with our strategic allies and meet face-to-face with local lawmakers to make our case for clear, concise public policy.

Paper Recycling
That includes recycling. There’s not a moment to waste on working together to find solutions to issues facing the U.S. recycling system. You’ll remember that last November at the American Recycles Day Recycling Summit at the Environmental Protection Agency (EPA), I joined executives from across a number of industries to sign a pledge to do just that.

Paper, by weight, is the most recycled material from municipal solid waste streams, and we have met or exceeded a 63 percent recovery rate for paper and paper-based packaging for each of the last nine years. In individual states and on Capitol Hill, we are meeting with EPA officials, recycling organizations, industry representatives and decision makers with a goal of adding more chapters to that recycling success story.

Some may consider our 2019 priority list aggressive. But, we don’t, and we’re up for the challenge. With the PPRC setting a great example from the start of the year, we’re going to make sure our industry’s voice is heard. That’s the key to growing our advocacy priorities into the tools that will help our industry do what it does best — manufacture the products that make everyday life easier. ■
Growing With Its Customers

By boosting its containerboard production via two paper machine conversions, Packaging Corporation of America has not only maintained its industry-leading integration rate, but also positioned itself to respond quickly and efficiently to future growth opportunities.

Packaging Corporation of America (PCA) is the third largest producer of containerboard products and the third largest producer of uncoated freesheet paper in North America. PCA operates eight mills and 95 corrugated products plants and related facilities. The company has approximately 15,000 employees with operations primarily in the U.S.

PCA’s Packaging segment includes six containerboard mills and 95 converting operations. In 2018, PCA produced about 4.1 million tons of containerboard and shipped about 58.9 billion square feet (BSF) of corrugated products.

PCA’s Paper segment operates under the trade name Boise Paper, a Division of PCA. The segment manufactures and sells white papers, including both commodity and specialty papers, at two white paper mills — Jackson, Alabama and International Falls, Minnesota.
Overseeing PCA’s growing business is its Chairman and CEO, Mark Kowlzan. Kowlzan has served as CEO since July of 2010 and also became Chairman in January of 2016.

Since 2010, PCA has increased its sales from $2.4 billion that year to $7.0 billion in 2018, while net income has climbed from $205 million in 2010 to $738 million in 2018.

From an operational standpoint, PCA in 2018 maintained its industry-leading integration rate by supplying the necessary containerboard to its expanding box making operations, while establishing new annual records for containerboard shipments, total box shipments and box shipments per day.

With an eye on the future, PCA bolstered its internal supply of linerboard with the conversion of a white paper machine at its Wallula mill in Washington State. The project, which was completed in October 2018, involved converting the mill’s No. 3 paper machine to the production of high-performance, 100% virgin kraft linerboard. According to Kowlzan, the project was “highly successful” with the machine operating at its design capacity of about 1,150 tons per day (400,000 tpy) and producing a very high quality product.

In addition to 2018, PCA also completed substantial optimization work at its DeRidder Mill in Louisiana.

Considering PCA’s steady growth, both financially and operationally, and the central role Mark Kowlzan plays within the company’s execution of its strategic plans, PaperAge has selected Mr. Kowlzan as our 32nd annual “Executive Papermaker of the Year.”

Among a few other college degrees you hold, you earned a Bachelor of Science in Chemical Engineering and Pulp and Paper Engineering, and a Master of Science in Pulp and Paper Engineering. At the risk of stating the obvious it appears you had an interest in papermaking before entering the industry.

While earning my BS in Chemical Engineering, I was able to specialize in Pulp and Paper Engineering. I stayed on to complete the graduate level MS in Pulp & Paper Engineering. To this day, I am convinced that it gave me a big advantage in that upon graduating, I had a solid understanding of all unit operations in integrated pulp and paper mills.

You joined Tenneco Packaging in 1996 (the company re-established the name Packaging Corporation of America in 1999). What was your first job with the company? Was there anything in particular that attracted you to company or the containerboard segment of the industry?

I joined Tenneco Packaging in 1996 at the Counce, Tennessee containerboard mill. My first assignment was Operations Manager and then the following year Mill Manager. Tenneco Packaging was a great opportunity in a sector of the industry that I believed would have solid growth potential. Furthermore, having spent my early career in many bleached coated and uncoated freesheet mills, I was able to bring a much more highly focused level of attention to detail to the brown mills.

MARK KOWLZAN

Mark W. Kowlzan has served as PCA’s Chairman since January 2016 and as Chief Executive Officer and a director since July 2010. From 1998 through June 2010, Mr. Kowlzan led the company’s containerboard mill system, first as Vice President and General Manager and then as Senior Vice President — Containerboard.

From 1996 through 1998, Mr. Kowlzan served in various senior mill-related operating positions with PCA and Tenneco Packaging, including as manager of the Counce linerboard mill. Prior to joining Tenneco Packaging, Mr. Kowlzan spent 15 years at International Paper Company, where he held a series of operational and managerial positions within its mill organization. Mr. Kowlzan is a member of the board of directors of the American Forest & Paper Association.
During 2018, PCA converted the No. 3 machine at the Wallula mill in Washington State to produce virgin kraft linerboard. Could you tell us about the conversion project?

The Wallula, Washington mill, No. 3 machine conversion from bleached coated specialty release liner to virgin kraft containerboard was a decision that was made based on our increasing internal linerboard needs along with the fact that the market opportunity for the coated release grades was declining. We were able to take all of our learnings from the DeRidder, Louisiana No. 3 paper machine conversion and apply it at Wallula.

In reference to the No. 3 machine, in an earnings call you said the machine at Wallula is quite a remarkable machine. How so?

Yes, on the January 2019 earnings call I did say that the Wallula No. 3 machine was a unique and remarkable machine. To our knowledge, it is the only light weight freesheet machine with a gap forming section ever converted to produce a full range of virgin kraft grade mix, ranging from light weights to heavy weights. This ability to produce the high performance heavy weight liners was a necessary requirement demanded by the local marketplace in the Pacific Northwest. We can now supply all of our needs for the West Coast from the Wallula mill.

With No. 3 now operating at its design capacity of about 1,150 tons per day, what’s next for PCA’s containerboard system platform?

Over the next few years, as PCA containerboard demand grows, we have the ability to optimize the Wallula mill, No. 3 machine.

It’s been a little over four years since the conversion of the D-3 machine at the DeRidder mill from newsprint to virgin containerboard. In addition, some optimization work involving the machine has been completed. What was the work focused on?

The first phase of the DeRidder No. 3 machine conversion from newsprint to virgin kraft containerboard was completed in October of 2015. During the last three years we have increased performance capability with projects that addressed drainage and drying improvements, and overall speed increases.

In 2018, PCA set new records for both containerboard shipments and box shipments. What do you attribute this to?

Our 2018 records for both containerboard production and box shipment was the result of our ongoing strategy of growing with our customers. For many years, we have outpaced the industry with a combination of organic box demand growth and strategic box plant acquisitions.
PCA just built a corrugated box plant in upstate Wisconsin. What led to this decision?

The new corrugated box plant in Marshfield, Wisconsin was the result of our highly successful Colby, Wisconsin box plant simply reaching their saturation capability and needing additional capability to grow with our customers.

PCA is beginning construction of a box plant in Richland, Washington, not too far from the Wallula mill. Could you tell us about the decision to build this facility?

The new corrugated box plant in Richland, Washington is the result of the same success story. The Wallula box plant that is part of the Wallula containerboard mill complex was quickly reaching its capacity. The new Richland plant 20 miles north is strategically located near some of our large volume growth customers. Together the Wallula and Richland box plants will service a significant growth opportunity. We are using a highly focused and accelerated effort that combines our significant engineering and corrugated technical capability. We will be managing most of the plant design, construction, and equipment installation and start up.

PCA operates two uncoated freesheet mills — Jackson, Alabama and International Falls, Minnesota — with a combined annual capacity of about 1 million tpy. Products are sold under the Boise Paper brand. This business has performed remarkably well and remains a steady contributor to PCA’s earnings. What’s behind the Paper segment’s admirable performance?

PCA is currently the No. 3 player in uncoated freesheet. The paper business has delivered outstanding results since the acquisition of Boise in 2013. PCA quickly brought a new focus on operational efficiency and best-in-class up time performance. We immediately addressed mill unit operations performance improvement issues while remaining focused on customer needs. The result is that we have a very efficient system capable of producing and going to market with the renowned Boise papers logistics and distribution capability.

Looking ahead, what do you focus on to further drive PCA’s containerboard and corrugated business?

To further drive PCA’s containerboard and corrugated products business we will continue to strategically position our capabilities to grow with our customers’ demands. PCA possesses a unique currency made up of our world class engineering and technical capability along with our marketing and sales prowess. We will continue to focus on a balanced and disciplined capital allocation and we will maintain financial flexibility with a strong balance sheet.
As progress marches forward and innovations in science and technology evolve, virtual reality and augmented reality will become an industrial standard and play a major role in mill planning and maintenance processes.

By Vesa Puoskari

Virtual technology and applications familiar to computer gamers are beginning to make their mark in the industrial world. Mika Karaila, Research Director in Automation R&D at Valmet, highlights the benefits of integrating virtual tools in mill planning and maintenance processes.

“Virtual reality is an excellent tool for visualizing complex industrial environments and machines in production plants. It can help to streamline maintenance and decrease costs through the use of intelligent products, tools and services at mills,” Karaila says.
Valmet has been developing and testing intelligent maintenance applications and augmented reality equipment for visualizing and facilitating repairs at mills since 2016. Virtual Reality (VR) is an artificial 3D environment that users can immersively interact with.

For the first-timer, navigating in virtual surroundings might feel a bit awkward, but after getting used to the headset and control stick, the journey starts to feel fun and fascinating.

“We have demonstrated our VR tools at several exhibitions. People queue up at our demos and they always give enthusiastic feedback. We have managed to overcome the major technological challenges and we are currently developing tools together with our customers. Now we are able to truly focus on issues that are relevant to them,” Karaila notes.

**Saving Maintenance Costs with Augmented Reality**

Valmet is using the most modern technology available to protect production lines from costly downtime — and even to decrease the environmental impacts of production.

Karaila emphasizes that augmented reality (AR) is a valuable maintenance tool. Maintenance can be very costly and challenging in a complex mill environment. Virtual technology can optimize and enhance operational work processes, security and asset performance to enable productivity enhancements.

The control room is the nerve center of the mill or plant, where screens display thousands of measurements from different parts of the process stages drawn in piping and instrumentation diagrams. With the help of AR, this process information can be displayed virtually in a headset, and mechanics can take the information they need with them when they are working on a machine.

Unlike VR, which creates a totally artificial environment, AR uses the real-world environment and overlays new digital information and images on top of it in real time.

“For example, we have created virtual solutions to visualize process measurements at pulp and paper mills. With the help of mobile devices and modern wearables, technicians can easily access the maintenance instructions and process measurements for mechanical components, valves and other equipment. This makes the whole operation more safe and manageable,” Karaila explains.
Technicians can also shoot 360-degree video when tackling a task for the first time together with a more experienced worker. “When executing the task alone, they can verify the different stages of the work through AR devices. This is one way to ensure consistently good results in maintenance work, while also taking safety issues into account,” he says.

Valmet has developed a Valmet DNA ecosystem that serves as an automation and information platform for process control. It combines all controls in a single platform: process, machine, quality, supervision, drive, as well as optimizations and mechanical condition monitoring.

“If the Valmet DNA tag is connected to the 3D world, then we can configure all the information in 3D surroundings. We have several applications for our energy, pulp and paper customers. The same programs can be configured to fit any of our customers.”

Design Platform for Mill Construction

Virtual tools can be integrated into the design process for power plants or paper mills and their machinery. “We can collaborate with our customers by creating and sharing virtual surroundings with several users, demonstrating and solving problems even if they are located in another part of the world,” Karaila says.

“For example, we can manage VR mill planning processes to discuss with our customers and architects about whether certain pipelines are in the correct place, if there is enough space for maintenance operations, or whether some doors and windows need to be installed somewhere else,” he adds.

“This is a quick way to proceed and solve issues already in the design phase. During the planning and construction phase, we don’t always have to travel to the site, which is often in a remote location. This saves time and costs.”

Future Industrial Standard

With the key technological challenges now solved, Karaila believes that virtual tools will soon make a breakthrough in real-world applications.

“The technical properties of software and equipment are becoming more accessible in terms of price. In industrial environments, we can use equipment that is already familiar from consumer markets. Younger generations familiar with computer gaming seem to be especially enthusiastic about experimenting with and applying VR and AR in their work.”

One example of a useful VR application is a gamified training tool for factory environments. Virtual training can prepare workers to react correctly in hazardous situations, for instance.

Also, the gesture and speech controls familiar from video game consoles are perfectly suited for industrial control rooms when the next-generation software for virtual control systems is ready. “We are aiming to develop Valmet’s virtual expertise through assistive artificial intelligence at the predictive level in surroundings where extended reality can suggest the service routines that should be performed for executing simple tasks like changing a filter.”

Extended reality (XR) encompasses a wide spectrum of hardware and software, including sensory interfaces, applications, and infrastructure that enables content creation for VR and AR. Karaila adds that AR and VR equipment also work offline.

“On industrial premises, network connections are not always reliable, so maintenance workers can get to know the problem by taking photos of the issue first, and then go online in a different office environment to solve the problem.”

He predicts that VR will gradually become an industrial standard.

“We are entering a stage where we can sit down with our customers and discuss what kind of applications they are interested in and what kind of problems they have had using devices. The more concrete the feedback we get from our partners, the better we can improve our tools.”

Vesa Puoskari is a freelance writer in Switzerland. For further information about topics presented in this article, contact Mika Karaila: Research Director, Automation business line, R&D Technology Research & IPR, by email: Mika.Karaila@valmet.com.
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Bearings are critical components that are used heavily in both pulping and paper production machines. Buried deep in the heart of each machine, they ensure that rotating parts move smoothly, efficiently and with minimal friction.

In many instances, bearing designs are highly specialized to meet demanding conditions; for example, operation in areas such as suction rolls where there is constant exposure to moisture, or in dryer sections with high levels of humidity and heat. Installed and maintained correctly, and protected by appropriate lubrication systems, bearings should provide a long and trouble-free operating life.

Unfortunately, it is not always possible to maintain bearings under ideal conditions, as bearings expert and SKF Business Unit Manager, Rudolf Groissmayr, explains. “Bearings can wear prematurely and fail unexpectedly for many different reasons. The most common causes include poor or incorrect lubrication, failed seals, misalignment of shafts, and changes in machine operating conditions. These often arise if attempts are made to increase line speeds or steam temperatures in dryers as a means of improving output. This can, however, move the bearing performance envelope outside its original specification.”

Although it’s unusual for a bearing to fail unexpectedly — the latest condition monitoring and oil analysis systems should provide sufficient advance warning to prevent such an occurrence — it is common to find bearings suffering from indentations and micro-fissures in rolling surfaces and
raceways that, over time, affect the performance and efficiency of the bearings and thus of the shafts or cylinders that they support.

Ultimately, regardless of how carefully engineered, installed and maintained they are, bearings that are in constant use will eventually reach a point where they require either repair or replacement. Although there are arguments in favor of each approach, in the current economic climate, where mills face a combination of intense global competition, rising input prices, there is a strong impetus wherever possible to repair rather than replace bearings.

REMANUFACTURING BEARINGS

Groissmayr, who manages one of SKF’s Industrial Service Centers specializing in the remanufacture of bearings for the pulp and paper sector, notes, “One of the biggest challenges for production or maintenance engineers is minimizing machine downtime. The problem with bearing replacement is that it’s often impossible to determine how damaged a bearing has become until it’s dismounted and removed from the machine, by which time of course the line has stopped. If a new bearing is required then this can be costly and, as few suppliers keep such specialized or expensive components in stock, may require a special factory order, which can take weeks or in some cases months to fulfill. The alternative is to remanufacture the bearing.

“Remanufacture is possible in over fifty percent of applications and can normally be carried out within days and at a considerably lower cost than purchasing a new product. It is also possible to remanufacture a bearing — especially older bearings — to a higher standard of quality and performance than the original part,” Groissmayr adds.

Besides productivity gains, Groissmayr sees some real environmental benefits of remanufacturing bearings. “Not only are there real commercial and technical benefits for mill operators, there is also a powerful argument in favor of environmental sustainability, as remanufacturing uses up to 90 percent less energy than that required to produce a new component.”

The purpose of remanufacturing, however, is not generally to produce a bearing better than the original, but to increase its service life.

It should be recognized that remanufacturing is an extremely demanding process that requires specialized knowledge and equipment to ensure that the bearing properties are maintained and guarantee continued reliability once the product is back in operation.

“Working with a specialized supplier is essential,” Groissmayr says. “Not only will they have the capabilities to carry out the work quickly to the highest standards, they will also be able to help a customer understand why the bearing was damaged in the first place and to assist with subsequent machine optimization to minimize the risk of subsequent failures.”

“Bearings can wear prematurely and fail unexpectedly for many different reasons. The most common causes include poor or incorrect lubrication, failed seals, misalignment of shafts, and changes in machine operating conditions.”

—Rudolf Groissmayr, SKF Business Unit Manager
REMANUFACTURE OR REPLACE?

Not all bearings are suitable for remanufacture. Those with heavy damage or fractures are generally only fit for recycling. The remanufacturing process therefore begins with an expert assessment of bearing condition, to determine both suitability for remanufacture and the type and extent of work required. An important aspect that is often overlooked is to assess bearing condition in the context of its application, taking into account the bearing load, lubrication conditions and time in operation; this enables the nature of the problem that has caused the damage to be fully understood.

A clear distinction has to be made between problems of subsurface-initiated fatigue and surface-initiated fatigue. The former describes the shear stresses that appear cyclically immediately below the load carrying surface of the rings and rolling elements. These stresses cause microscopic fissures that gradually extend to the surface and, as the rolling elements pass over these fissures, fragments of the surface material spalls or breaks away. Bearing raceways with damage caused by subsurface-initiated fatigue are not normally suitable for remanufacture, while those suffering from surface initiated fatigue can generally be restored by honing or grinding.

When a bearing arrives at an SKF remanufacturing center, it is visually inspected and parameters such as residual magnetism and clearance are checked. The bearing is then disassembled and cleaned before the component parts are carefully inspected and their dimensions measured. This includes standard measurement of ring wall thickness and ovality, with the option of ultrasonic testing to detect subsurface micro-cracks. Additionally, measurement of hardness, roller diameter set variation and outer dimensions can be added depending on the condition of the bearing and the criticality of the application.

This initial assessment phase is then followed by the submission of a customer report and a recommendation for further actions. The subsequent remanufacturing process is undertaken in a dedicated production facility, combining advanced automation and control systems with the engineering knowledge of experienced technicians.

The remanufacturing process is effectively divided into four categories:

• service level 1 (SL1) covers inspection and analysis of failures;
• service level 2 (SL2) covers the process of restoring bearings that have not been used but may have degraded due to lengthy or incorrect storage;
• service level 3 (SL3) covers the remanufacture of bearings, primarily by polishing processes, with the reuse of existing components;
• service level 4 (SL4) is for the extensive remanufacture of bearings requiring the replacement of components and grinding of raceways.

In each case, remanufactured bearings are reassembled, quality inspected and marked for traceability before being packed and returned to the customer.

CONCLUSION

Groissmayr believes that bearing remanufacture offers considerable advantages. “Our experience has shown that remanufacturing can help paper mills reduce their annual bearing replacement costs. This can vary, depending on the business model, but can typically be between ten and twelve percent. Just as importantly, the relatively short lead times mean that, with careful planning, bearings can be remanufactured during normal line shutdown, thereby minimizing any loss of productivity. Finally, the potential energy savings also make remanufacturing an attractive option from an environmental perspective.”

Nia Kihlström is Senior Trade Press Manager for SKF in Gothenburg, Sweden. She can be reached by email at: nia.kihlstrom@skf.com.

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