Pratt Industries’ Anthony Pratt
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Sun Paper’s proposal to build a $1.8 billion linerboard mill in Arkadelphia, Arkansas has been, in paper industry terms, indefinitely idled, and evidence is growing that it may never happen.

According to an article in the *Arkansas Democrat Gazette*, Arkadelphia economic development officials are taking steps to market the property where the mill was to be built. Their decision came after a visit to China in October of 2019 when Sun Paper officials told them they wanted a “pause” in the project until January 2020, in hopes that a deal would be reached between the U.S. and China.

My gut feeling is there’s more at play than just the trade conflict. Let’s look at the timeline and changing landscape for the project.

The mill project was formally announced on April 26, 2016 when Arkansas Governor Asa Hutchinson signed a memorandum of understanding with Hongxin Li, the founder and chairman of Sun Paper. The deal was loaded with state and local incentives.

According to an article in the *Arkansas Democrat Gazette*, state incentives include a cash rebate equal to 5% of new payroll for 10 years; sales tax refunds on building materials, machinery and equipment; a $12.5 million grant for site preparation and equipment; up to $3 million for workforce training; and a $50 million collateralized loan provided through multiple state sources.

An incentives package from Clark County and Arkadelphia includes $10 million to help offset infrastructure costs, drawn from the county’s 0.5% sales tax that has been collected for nine years for economic development.

Another incentive provides about $92 million in the form of a 65% county property-tax discount over 20 years.

Sun Paper’s initial proposal some three and a half years ago was to produce dissolving pulp. At some point late in 2016 or early in 2017 the company reportedly became concerned that the dissolving pulp market would be saturated by the time they entered the market after the two-year construction period — and rightly so.

Making a course change, Sun Paper announced that the proposed mill would produce 4,400 tons per day of linerboard on two production lines, according to local news reports.

The product change made sense from a demand standpoint, but I kept asking myself how a China-based company with no prior inroads in North America (that I know of) compete against well-established, well-run, highly efficient U.S. containerboard/linerboard producers? Toss into the mix new capacity slated to come on-stream as the result of machine conversions, along with the relatively recent start-up of Pratt Industries two new recycled containerboard mills in the Midwest and Anthony Pratt’s announcement of building two more in the next 4-5 years.

Could anyone fault Sun Paper for having second thoughts?

Sun Paper’s situation brings to mind another. In June of 2014, Virginia’s former Governor Terry McAuliffe, announced with great fanfare that Tranlin, Inc., the U.S. subsidiary of Shandong Tranlin Paper Co., Ltd., planned to invest $2 billion to build a pulp and paper mill in Chesterfield County on an 800-acre site. This deal, much like Sun Paper’s, was loaded with state and local incentives.

In May of 2017, Tranlin announced that the project would be delayed and needed more time before bringing it to Virginia. After Tranlin missed payment deadlines on $5 million of grant money from the state for the land, the Virginia Economic Development Partnership’s (VEDP) board of directors in January of 2018 officially pulled the plug on the deal and transferred the property’s title to VEDP.

Maybe both Sun Paper and Tranlin weren’t familiar enough with the U.S., but the common denominator boils down to politicians orchestrating deals they don’t know nearly enough about.

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Marcal Paper Restarts Papermaking Operations in New Jersey

Marcal Paper hosted an event in January to commemorate the official restart of tissue production in Elmwood Park, New Jersey and thank those across New Jersey who aided in its recovery, one year after a ten-alarm fire destroyed the company’s iconic mill and shut down operations.

Chief Executive Officer Rob Baron and dozens of company associates were joined by dozens of workers, Governor Phil Murphy, Congressman Bill Pascrell, Jr., first responders, the United Steelworkers, state legislators, local officials and many community partners.

“Marcal Paper is officially back in business,” Baron announced to a cheering crowd inside the mill on Jan 31. “Today we officially announced the restart of regular papermaking operations in Elmwood Park, one year to the day after a ten-alarm fire destroyed the iconic Marcal Paper mill,” said Baron. “The prospect of such an announcement — of restarting a viable paper manufacturing business at the site — seemed impossible to any of us who were there one year ago.”

“We are thrilled to welcome back dozens of good people into full-time jobs, and work to restore customer confidence. We will start the long journey of creating a great company from the ground up, once again. Thanks to the remarkable support we’ve received and the determination of our team, the Marcal story will have another chapter.”

New Jersey Governor Phil Murphy added, “One year ago, I toured what remained of the historic Marcal factory only hours after a devastating fire. What a difference a year makes. Today, I am proud to be here for the reopening of Marcal in Elmwood Park, and thankful that this factory will again bring jobs and opportunity to this community.”

Baron said he and others at the mill were determined to rebuild the operation. “The team would come into my office and say, ‘I’m staying if you’re staying; let’s do this’ . . . I never thought about walking away.”

Baron said it’s going to be a challenge moving forward. “Our goal is to continue to grow this business. But we lost in eight hours; we lost eighty years of customers. There is no magic bullet; there is no simple way to get back . . . it’s going to take time.”

Currently, the mill is operating one paper machine with about 100 workers back on the job.

Verso Completes Sale of Androscoggin and Stevens Point Mills to Pixelle

Verso on Feb. 10 announced that it completed the sale of its Androscoggin Mill, located in Jay, Maine, and Stevens Point Mill, located in Stevens Point, Wisconsin, to Pixelle Specialty Solutions LLC.

The Androscoggin mill has the capacity to produce about 425,000 tons of paper per year while the Stevens Point mill has the capacity to produce approximately 210,000 tons of paper per year.

“We are pleased to have completed the sale of our Androscoggin and Stevens Point mills to Pixelle,” said Verso Chief Executive Officer Adam St. John. “After the transaction, we will continue to be a debt-free company with significant manufacturing and financial flexibility, well positioned to enhance our competitive market position, effectively respond to industry trends and take advantage of low-risk, high-return opportunities that should create long-term value for all of our stakeholders.”

“With the sale of the Stevens Point and Androscoggin mills, we will now focus on the growth and enhancement of our pulp and packaging products as well as the specialty products produced at our remaining mills,” said Verso President Mike Weinhold.

Verso first announced its intention to sell the two mills to Pixelle on Nov. 12, 2019. At that time, Verso said the sale price would be $400 million, subject to post-closing adjustments.

Verso said that it plans to utilize no less than $225 million and up to $282 million of the net cash proceeds from the transaction for the benefit of stockholders. The company also plans to utilize a portion of the net cash proceeds in 2020 to reduce its remaining unfunded pension liability.
An outstanding paper product requires outstanding production – matched with the particular needs of raw material and final product. Discover the full-range portfolio from ANDRITZ! Excellent stock preparation that allows best fiber development according to furnish and with economical use of resources. PrimeLine paper machines that are a synonym for producing top-quality tissue, paper, and board grades. Complete lines or single units, upgrades, modernizations, and lifetime service – ANDRITZ is ready for your challenge! Contact us and benefit from your individual package in papermaking technology.
Domtar in mid-February entered into an asset purchase agreement with Appvion Operations, Inc. to acquire Appvion’s Point of Sale (POS) paper business. The agreement includes the coater and related equipment located only at the West Carrollton, Ohio, facility as well as a license for all corresponding intellectual property.

“The combination of Domtar’s world-class paper-making capabilities with the West Carrollton coater’s significant scale will make a globally competitive point of sale paper business and provide new options for our future growth,” said John Williams, President and CEO of Domtar.

Graeme Hodson, President of Appvion’s Paper division, added, “Appvion and Domtar have enjoyed a strong mutually beneficial relationship over the last several years as part of our long term supply agreement. The West Carrollton asset sale builds on that relationship and provides an opportunity for our POS business employees to become a part of a large integrated pulp and paper producer with the capability to leverage the coating asset to its maximum potential.”

Appvion will continue its focus and development efforts on its broad range of products servicing its customers in the Tag, Label & Entertainment markets, the Carbonless & Specialty paper markets, as well as the newly formed Packaging & Specialty Coating Division.

The transaction is expected to close in the second quarter of 2020.

Georgia-Pacific to Invest $145 Million Dixie Plate and Bowl Operations

Georgia-Pacific said it will make an investment of more than $145 million at its Darlington, South Carolina, Dixie plant that will expand plate and bowl making operations. According to GP, this investment is based on customer and consumer demand.

“This truly is an investment in our customers and consumers who use our products and value the Dixie brand,” said David Duncan, executive vice president for Georgia-Pacific’s Consumer Products Group.

GP said the investment at Darlington will not create new jobs but will modernize and expand the plate and bowl capacity of the facility. The expansion will begin in March with a targeted completion of first quarter 2022. During this time, the plate plant will continue to operate. Over time, the site will add new machinery, including a new plate printing press. A new, modern warehouse also will be part of the expansion.

At the same time, the company also announced that it will shut down its Darlington cup plant by September and current distribution center sometime in 2021. Moving forward, cup customers will continue to be served from Georgia-Pacific Dixie plants in Lexington, Kentucky, and Lehigh Valley, Pennsylvania.

Industrial Opportunity Partners Acquires Midwest Paper in Wisconsin

Industrial Opportunity Partners ("IOP"), a private equity firm based in Evanston, Illinois, on Jan. 8 announced that it acquired Midwest Recycled and Coated Containerboard Mill, LLC.

Terms of the transaction were not disclosed.

Midwest Paper is a paper mill headquartered in Combined Locks, Wisconsin. The company manufactures and distributes various grades of paper including recycled containerboard (medium and linerboard) for corrugated packaging, recycled bag products, and white paper for book publishing and printing/writing applications.

The mill has an annual production capacity of 400,000 tons on three paper machines. The company employs about 320 workers.

Dave Mackin, an IOP Operating Principal, has been appointed Chairman of Midwest Paper.

“We look forward to partnering with the Midwest Paper management team in continuing to enhance the company’s production capabilities with a focus on delivering high levels of customer service and quality,” Mackin said.

Mike Deprey, Midwest Paper Vice President, added, “The Midwest Paper management team and I are looking forward to our partnership with IOP. We believe IOP’s operations-focused approach will assist us in optimizing all aspects of our business to support continued growth and better serve our customers.”
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**NORTH AMERICA**

**Greif to Sell its CPG Business to Graphic Packaging for $85 Million**

Greif, Inc. on Feb 27 announced a definitive agreement to sell its Consumer Packaging Group (“CPG”) business for $85 million in cash to Graphic Packaging Holding Company.

Greif’s CPG business consists of seven converting facilities across the U.S. that manufacture folding cartons for consumer packaged goods businesses.

Greif expects to use the proceeds for debt repayment.

“We are pleased with the conclusion of the CPG strategic review process,” said Pete Watson, Greif’s President and Chief Executive Officer. “The sale of CPG allows us to de-lever our balance sheet and optimize capital allocation plans. By divesting these assets, we can refocus our business on our core industrial franchise and our stated strategic growth priorities in Intermediate Bulk Container production and reconditioning and containerboard integration.”

According to Graphic Packaging, the CPG operations produce over $200 million in annual revenue. The business is expected to generate approximately $20 million in annualized EBITDA, including synergies, over the 24-month period after the successful completion of the acquisition.

Graphic Packaging’s President and CEO, Mike Doss, said, “We are excited to announce the acquisition of the Consumer Packaging Group business from Greif, Inc. The transaction further diversifies our end-markets and enhances our service capabilities to growing mid-sized consumer goods and food service customers.”

The companies expect to complete the transaction by March 31, 2020.

---

**DS Smith Opens New Box Manufacturing Plant in Indiana**

DS Smith has opened a new box plant in Lebanon, Indiana, with the capacity to produce more than 17 million square feet of lightweight recyclable packaging per day.

According to DS Smith, the opening of the corrugated plant positions the company to keep pace with increasing demands by consumers and retailers for fully recyclable boxes and fit-to-product packaging that reduces costs, waste and “packing air” of irregularly shaped items. The facility can produce about 30,000 boxes an hour and 2 billion square feet of recyclable packaging a year.

In addition to the plant’s boxmaking capabilities, it also features an underground scrap conveyer system to drastically reduce dust and noise.

The new plant is expected to result in 170 new jobs in Lebanon in engineering, machinery, production, sales and management positions.

The location, a strategic decision based on existing and future customer growth, will serve customers and brands with distribution centers in markets such as, Chicago, Columbus, Cincinnati, St. Louis and Nashville.

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**Resolute Invests $38 Million in Kénogami Mill, Includes Construction of Cellulose Filaments Plant**

Resolute Forest Products will construct a commercial plant specializing in the production of cellulose filaments at its Kénogami paper mill in Quebec as well as the optimization of the mill, at a total cost of $38 million.

“Our investment in cellulose filaments represents an opportunity to enter into non-traditional growth markets,” said Yves Laflamme, President and CEO of Resolute. “The cellulose filament and Kénogami mill optimization projects will create synergies within our network of operations in Saguenay-Lac-Saint-Jean.”

Cellulose filaments offer a wide variety of uses and a number of benefits. The filaments can be integrated into commercial and consumer products from many industries, including transportation, construction and energy, increasing the resistance and durability of those products.

The new $27 million CF plant startup phase is slated for 2021. At full production, the plant will produce 21 metric tons per day.

Resolute will also invest $11 million to enhance the Kénogami paper mill’s short-term competitiveness by modernizing equipment in order to produce high-grade SCA+ supercalendered paper, allowing the mill to access more favorable markets. The mill has a production capacity of 133,000 metric tons of specialty papers per year.

The cellulose filaments will be marketed with the help of Performance BioFilaments Inc., a joint venture established in 2014 by Resolute and Mercer International.

The project will be funded in part by Quebec’s Department of Forests, Wildlife and Parks ($2.5 million), Investissement Quebec ($4.2 million) and Natural Resources Canada ($4.9 million).
Kadant is a global leader in fabric cleaning with more than 1000 traversing high-pressure cleaning system installations worldwide. The M-clean™ system uses high-pressure water in combination with an effective evacuation and air knife system. This patented method removes stickies and chemical build up from the fabric’s surface to optimize cleaning, improve operation efficiency, and increase production.
Sappi in February announced that it started the process of consultation with employee representatives at its Stockstadt mill in Germany related to the closure of Paper Machine 2.

In a written statement, Sappi said, “The continuing and accelerating structural drop in demand for coated papers in Europe and elsewhere has made it impossible for Sappi Europe to fill its capacities adequately and to be sufficiently profitable in its current form. Importantly the current unfavorable market situation is caused by factors that are beyond Sappi’s control. “Taking these market conditions into account, Sappi has undertaken a thorough review of its European production assets. It has concluded that the least disruptive way to adjust its capacity in line with market demand would be to operate fewer machines. Exhaustive analysis indicates that the preferred option to achieve this would be to relocate the entire production output of Paper Machine 2 at Stockstadt mill (some 240,000 tpy of coated graphic paper) to other Sappi paper machines in Europe. . .The task at hand is to identify viable alternatives for Paper Machine 2.”

The Stockstadt mill, which produces up to 145,000 tons per year of bleached chemical pulp for its own consumption and market pulp, and up to 445,000 tons per year of uncoated and coated woodfree paper, currently employs 760 people, of which up to 150 positions may be impacted by the consultations.

The Finnish Paper Workers’ Union and Finnish Forest Industries came to an agreement on Feb. 10, ending a two-week strike that halted production in pulp and paper mills across Finland. An estimated 9,000 union members participated in the strike that began at 6 a.m. on Jan. 27.

The new agreement will increase salaries by 3.3% over a 25-month period, and increase annual production time of the mills by 24 hours through shortening midsummer stoppages in late June.

Finnish Forest Industries’ Labour Market Director Jyrki Hollmén was not happy about the strike nor the deal. “The changes are a step in the right direction but are insufficient for the international competitiveness of Finnish mills,” he said.
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EUROPE

Heinzel to Expand Pulp Production Capacity at Zellstoff Pöls in Austria

Heinzel Group announced that it will invest about 42 million euros to further expand pulp production at its pulp and paper mill (Zellstoff Pöls) in Pöls, Austria.

According to Heinzel, the investment will enable the production of up to 100,000 metric tons of brown (unbleached) pulp, which can be used as the basis for brown kraft paper, in addition to the production of white (NBSK) pulp in the future.

In July of 2019, the Pöls mill started up a new paper machine, PM3, which has the capacity to produce 100,000 metric tons of kraft paper per year. The new machine increased the mill’s total paper production capacity to 200,000 metric tons per year.

In regards to pulp, the pulp mill currently has the capacity to produce about 450,000 metric tons per year of ECF-bleached long-fibre sulphate pulp.

“In the future we will be able to produce more than 500,000 metric tons of white and brown pulp in Pöls,” said Kurt Maier, CEO of Heinzel Group. “We thus continue to pursue our ambitious growth course in the area of sustainable packaging paper and create the basis for the construction of another paper machine.”

Heinzel expects the additional pulp production will be available by the end of 2021.

UPM Says No Buyer Yet for Chapelle Newsprint Mill in France, Closure Imminent

Earlier, in September 2019, UPM announced the intention to sell its Chapelle newsprint mill in Grand-Couronne, France. It was communicated at the same time, that a process for the potential closure of the mill would be opened in case no credible offer would be received until mid-January 2020.

In a written statement, UPM said, “We started the sales process in September (2019) and have been in continuous and substantial discussions with interested parties. While these discussions are still ongoing, we have not received binding offers by potential buyers of the mill to date.

“Consequently, we informed employee representatives today of our intention to start the employee consultation processes for the potential closure of the site. These consultations are estimated to be concluded by end of Q2 2020 and will be conducted according to French legislation.

“We will continue the sales process throughout the consultation process. We remain committed to selling the mill if we receive a suitable offer.”

UPM Chapelle manufactures newsprint papers with an annual capacity of 240,000 tonnes. Situated in Grand Couronne, France, the mill currently employs 236 people, operating one paper machine.

The sale or closure of the Chapelle mill is part of UPM’s capacity utilization plans in Europe announced in September 2019.

Papierfabrik Palm Containerboard Machine Project on Track in Germany

Papierfabrik Palm (Palm) reported that construction for its new recycled containerboard machine project at its Aalen-Neukochen paper mill in Aalen, southwest Germany, is on schedule. Palm’s headquarters is also located at the site.

Groundbreaking for the new machine, Aalen PM5, took place June 7, 2019.

The EUR 500 million project is due to run until 2022 and incorporates the paper machine, a new biological waste water treatment, finished goods and raw material warehouses and a combined heat and power plant (CHP).

The Aalen mill has three paper machines: PM2 produces newsprint with a capacity of 90,000 tonnes per year; PM4 produces corrugated board and has a production capacity of 110,000 tonnes per year; and PM5, which also produces corrugated board, has a capacity of 150,000 tonnes per year.

The new Aalen PM5 will replace the mill’s three existing machines.

At a design speed of 2,000m/min in combination with a trimmed machine width of 10.9 meters, Aalen PM5 will produce 750,000 tonnes per year of lightweight testliner and fluting in a basis weight range of 60 - 100 gsm. The machine’s fiber furnish will be 100% sorted recycled fibers.

Palm’s group of companies has five locations across Europe and produces one million tonnes of newsprint and 1.3 million tonnes of corrugated base paper.
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A crushed roll of paper can cost manufacturers and their customers countless hours, dollars, and headaches. But by simply inserting core plugs into each roll, paper makers can reduce damage and loss claims for just pennies per roll. As a family-owned New England company that has been producing core plugs for over 50 years, Souhegan guarantees a high-quality, steady inventory of the products you need, whenever you need them.

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For more information on standard plug sizes and custom options call us at (603) 654-2311 or visit us online at www.souheganwood.com
Valmet will supply an Advantage DCT100HS tissue production line, including a deinking plant and an extensive automation package, to Alas Doradas in El Salvador. The order also includes a Valmet Performance Center agreement to support efficient production with Industrial Internet.

The new tissue machine will have a width of 2.8 meters and a design speed of 2,000 meters/minute. It will add 35,000 tons tissue paper per year to Alas Doradas’ current production of high-quality toilet tissue, napkins and kitchen towels.

The delivery also includes an extensive automation package with Valmet DNA, Valmet IQ quality controls, Industrial Internet applications, Valmet Performance Center agreement and tissue line training simulator.

Engineering, supervision, training, start-up and commissioning are also included in the delivery.

Start-up is planned for the first half of 2021.
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INDUSTRY SUPPLIERS

ANDRITZ to Supply Pulping Equipment for UPM’s New Pulp Mill in Uruguay

ANDRITZ will supply energy-efficient and environmentally friendly equipment and processes for all main process islands in fiber production and chemical recovery for UPM’s new pulp mill to be built near Paso de los Toros in central Uruguay. When operational, the eucalyptus pulp mill will have an annual production capacity of 2.1 million tonnes. Start-up is scheduled in the second half of 2022.

ANDRITZ said that the core equipment will originate largely from its operations in Finland, which will result in a significant positive employment impact for its staff there as well as the company’s workshops where a large part of the core equipment for this contract will be manufactured.

ANDRITZ scope of supply includes a complete wood processing plant, the world’s largest single-line fiberline, a new EvoDry Pulp Drying System with two energy-efficient pulp drying lines, an energy-efficient black liquor evaporation plant, an HERB recovery boiler, a biomass-fired power boiler (fuels include bark, harvesting residues and sludges from the mill), and a complete white liquor plant.

Kadant Black Clawson Awarded Deink Line Expansion of Papel San Francisco

Kadant Black Clawson recently received an order from Papel San Francisco to supply a complete stock preparation and deinking line for its new tissue production line at its Mexicali, Mexico facility.

As part of this expansion project, Papel San Francisco required a sustainable, highly-flexible solution with the ability to expand production while maintaining the high quality of the finished product. Additionally, this system needed to process what is anticipated to be increased levels of furnish contamination from the market going forward.

Kadant Black Clawson’s fiber processing solution was developed with careful consideration of the unique demands of the application and the goal for creating a more sustainable, profitable process. It includes Kadant’s innovative robust Heli-Drum pulping and detrashing system as well as coarse, fine, and approach flow screening. The scope of supply also includes Kadant’s MAK-C™ flotation cell and cleaning systems.

The line is scheduled to be up and running in September 2020.
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The Transphase Z-Box steam box design provides uniform low velocity steam to ensure no sheet disturbance and minimum steam spillage. To guarantee easy cleaning, the Z-Box profiler features our innovative swivel retraction which pivots the box up to 60°. IBS supplies the interface cabinet to control the steam actuators, and features Festo CPX modules which can detect any air leakage or non-movement of the industry-leading CR2 profiling actuators.

Benefits:
- Production increase up to 15%
- Remove lump breakers
- Increase press solids up to 3%
- Reduce 2Sigma moisture profile by up to 80%
- Shut off water profilers
- Increase table dewatering capacity
- Shut off couch vacuum

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Boost Production by 10-15% with Super Steam Vac

- Shut off couch vacuum from 20inHg to 0inHg
- Lump breaker removed
- 12% speed increase
- 65% 2Sigma CD moisture reduction
- 3 felt heaters in press shut off

Benefits:

IBS-PPG has installed a couple of Super Steam Vac systems on Fourdrinier machines producing Liner and Medium grades – OCC and virgin - as well as those producing bleached and unbleached soft and hardwood market pulp. Below are some of the excellent results from two recent installations.

**Linerboard - 100% OCC**

- Shut off couch vacuum from 20inHg to 0inHg
- Lump breaker removed
- 12% speed increase
- 65% 2Sigma CD moisture reduction
- 3 felt heaters in press shut off

**Pulp Results**

- Increased solids off couch by 2.5%
- Increased solids into dryer by 2.3%
- Up to 8% reduction in dryer steam use
- 10% speed increase
- 50% less steam consumption than existing steam box
- Sheet temperature into dryer increased from 47°C to 63°C - 116°F to 145°F
Clearwater Paper has elected Arsen S. Kitch, the company’s Senior Vice President and General Manager of its consumer products division, as Clearwater’s next CEO, effective April 1. He will also be appointed to the Board. Kitch will succeed Linda Massman, who has informed the board of her decision to retire from Clearwater Paper after serving in the CEO position since January 2013.

Mayr-Melnhof Karton has appointed Peter Oswald as its new Chairman and CEO, effective May 1. He will succeed Wilhelm Hörmanseder, who joined the Mayr-Melnhof in 1990 and has served as Chairman and CEO since May 2002. Oswald most recently served as Group CEO of Mondi — a position he stepped down from on Jan. 10, 2020.

Neenah, Inc. announced that John P. O’Donnell will retire as CEO and as a member of the Board of Directors effective on May 21, and that Julie A. Schertell, Senior Vice President and Chief Operating Officer, will succeed him in both roles. O’Donnell has been CEO since 2011. Ms. Schertell joined Neenah in 2008, and had been President of both the Technical Products and the Fine Paper and Packaging businesses before being named Chief Operating Officer in December 2019. Neenah also named Byron Racki as Senior VP - Sales & Marketing. Racki previously held the position of Sr. VP and President - Fine Paper & Packaging.

Pixelle Specialty Solutions has named John P. Jacunski as Senior Vice President and Chief Financial Officer of the company. Prior to joining Pixelle, Jacunski served P.H. Glatfelter Company from 2003 until 2019 in positions of increasing responsibility, including Executive VP and CFO; President of the Specialty Papers Business Unit; and Vice President and Controller.

Sappi North America recently promoted Tom Radovich to Managing Director of Sappi North America’s Cloquet Mill in Minnesota (effective Dec. 1, 2019). This follows the appointment of Mike Schultz, former Managing Director, as Vice President of Manufacturing for Sappi North America in the fall of 2019. Radovich has served as interim Managing Director of the Cloquet Mill since September. He holds a Bachelor of Paper Science and Engineering degree from the University of Minnesota.

Södra announced that its President and CEO, Lars Idermark, informed the Board that he will be leaving the company. Idermark was appointed President and CEO in December 2012 and took office in May 2013. Idermark, who will be turning 63 this year, said his decision is based on personal reasons. Södra’s Board has initiated a recruitment process to find a replacement.

Sonoco on Feb. 3 elected R. Howard Coker as its President and CEO. Coker previously served as Senior Vice President of Sonoco’s Paper/Industrial Converted Products segment. Coker, 57, succeeds Robert Tiede, 61, who elected to retire from Sonoco after serving as President and CEO since April 2018. Coker has also been elected to the company’s Board of Directors, replacing Tiede.

RECOGNITION

Mike Graves, CEO of Midland Paper, Packaging + Supplies, is the recipient of NPTA’s 2020 Stanley O. Styles Industry Excellence Award. NPTA noted that “Mr. Graves’s impact on the industry is marked by his steadfast leadership, dedication to the industry, innovative ideas, strong sense of ethics, generosity and willingness to lend a hand, which make him more than deserving of NPTA’s highest honor.”

INDUSTRY ASSOCIATIONS

Cepi (Confederation of European Paper Industries) has named Ignazio Capuano as its new chairman. Capuano is CEO of Burgo Group and Vice President of the Italian paper manufacturers’ association, Assocarta.
APRIL 1-3, 2020
AICC 2020 Spring Meeting
Independent Packaging Association (AICC)
Omni La Costa Resort & Spa
San Diego, California, USA
www.aiccbox.org

APRIL 6-8, 2020
BLRBAC 2020 Spring Meeting
Black Liquor Recovery Boiler Advisory Committee
Crowne Plaza Hotel - Atlanta Airport
Atlanta, Georgia, USA
www.blrbac.org

APRIL 22-24, 2020
PPC Spring Outlook and Strategies Conference
Paperboard Packaging Council
Walt Disney World Swan Resort
Orlando, Florida, USA
www.paperbox.org

APRIL 26-27, 2020
FBA Annual Meeting
Fibre Box Association (FBA)
The Montage Laguna Beach
Laguna Beach, California, USA
www.fibrebox.org

APRIL 26-29, 2020
PaperCon 2020
TAPPI
Cobb Galleria Center
Atlanta, Georgia, USA
papercon.org

MAY 27-30, 2020
PACWEST Conference
Western and Pacific Coast
PAPTAC Branches
Jasper, Alberta, Canada
www.pacwestcon.net

JUNE 14-16, 2020
International Pulp Week
Pulp and Paper Products Council
Fairmont Hotel Vancouver
Vancouver, British Columbia, Canada
internationalpulpweek.com

JUNE 14-17, 2020
PPSA Annual Safety & Health Conference
Pulp & Paper Safety Association
The Renaissance Orlando at SeaWorld
Orlando, Florida, USA
ppsaconference.org

JUNE 24-25, 2020
ZELLCHEMING-Expo 2020
Mesago Messe Frankfurt GmbH
Messe Frankfurt
Frankfurt, Germany
zex.mesago.com/events

AUGUST 10-12, 2020
Latin American Conference
Fastmarkets RISI
Renaissance Hotel
Sao Paulo, Brazil
www.risinfo.com/events

SEPTEMBER 13-17, 2020
SuperCorrExpo 2020
TAPPI
Orange County Convention Center
Orlando, Florida, USA
www.supercorrexpo.org

SEPT. 28 - OCT. 2, 2020
TissueCon 2020
TAPPI
Cobb Galleria Center
Atlanta, Georgia, USA
www.tissuecon.org

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New Year’s resolutions, the State of the Union address, proposed budgets — the beginning of the year is a time for defining what you stand for and how those important issues will shape your efforts in the months ahead. That same approach is key to the success of industry advocates as well.

The pulp, paper, packaging, tissue and wood products industry enters 2020 with strong momentum thanks to the passage of the U.S.-Mexico-Canada (USMCA) trade agreement. AF&PA made USMCA a leading advocacy focus last year due to the 88,000 direct and indirect American jobs supported by total pulp and paper U.S. exports to Mexico and Canada. Though we anxiously wait for Canada to ratify the agreement, our success in championing new commitments to promote sustainable forest management and legal trade in forest products will be a model for our work this year.

While free and fair trade will always be a prominent issue for AF&PA, we shift our focus slightly to a series of additional priorities that support our industry’s continued growth and ability to create American manufacturing jobs. To ensure government policies strengthen our industry’s ability to provide consumers with sustainable, recyclable and renewable paper products, AF&PA will prioritize its advocacy efforts on carbon neutrality of biomass; continued success for paper recycling; federal regulatory reform and transportation infrastructure.

The concept of the carbon neutrality of biomass isn’t new — and it shouldn’t be controversial. A wide range of research, legislation and policies from agencies and institutions around the world have recognized the use of forest residuals (biomass) to power mills as a renewable, carbon-neutral energy source. Yet, some critics still challenge this science-based concept and have created regulatory uncertainty in the U.S. around it, which hinders our global competitiveness and threatens the very rural jobs our industry supports.

AF&PA members have a commitment to sustainable manufacturing that is second to none. We have some of the most comprehensive set of quantifiable sustainability goals of any U.S. manufacturing industry — Better Practices, Better Planet 2020 — which are based, in part, on the use of carbon neutral biomass to power our facilities. That is why AF&PA is committed to advocating for science-based policies that acknowledge the carbon neutrality of biomass and provide our industry the regulatory certainty and level playing field it needs.
Another vital component of our commitment to sustainability is the recyclability of paper products. Paper recycling is an environmental success story, with nearly 70 percent of paper recovered for recycling—a rate that has doubled since 1990. Yet some legislators are championing policies that restrict or tax paper products, despite the fact they can be and are easily recycled.

We support initiatives to better educate consumers on the right ways to recycle and will advance initiatives that reinforce the use of paper products that are recyclable, compostable, reusable and made from renewable material. AF&PA will work throughout 2020 to advance policies like Sens. Portman and Stabenow’s bipartisan RECYCLE Act to encourage the use of paper products and increase the quantity and quality of paper in the recycling stream. We also look forward to continued discussions centered on climate policies that are shaping legislation both federally and in the states.

In addition to promoting the use of sustainable products, we believe it is critical to advocate for policies that reduce costs and complexity for our members to enable them to compete on a level playing field in the U.S. and around the world. The rules of the road—and even the roads themselves—are imposing substantial expenses on our companies and making it more difficult for them to manufacture new products and bring them to consumers.

Our industry faces substantial inefficiencies among both federal regulatory compliance and surface transportation policies, including an aging infrastructure. Billions in new capital expenditures are required to comply with manufacturing regulations only to then have to ship those products using an increasingly outdated transportation system. AF&PA’s priority for 2020 will be to reduce the cost and uncertainty of federal regulations and increase infrastructure enhancements and truck weight limits to more efficiently connect products with consumers.

Advocacy is always a challenge in the crowded marketplace of ideas that exists in an election year, but that makes a core set of priorities even more critical. AF&PA is starting 2020 focused on advancing key policies that allow the paper and wood products industry to continue its environmental and economic success story. That focus will enhance the sustainability of a vibrant manufacturing industry, while creating economic opportunity for our employees and the communities in which they live and work.
Focused on Sustainable Growth

With five recycled paper mills in operation and plans to build two more, Pratt Industries long-standing use of 100% recovered fiber is fueling its growth in a world of sustainable packaging.

By John O’Brien, Managing Editor

Pratt Industries started-up its first 100% recycled paper mill in the U.S. in 1995. Four years earlier, Anthony Pratt had moved from Australia to the U.S. to lead the company and explore growth opportunities. At that time, the company owned an aging Kraft paper mill in Macon, Georgia, which it sold, and built its first integrated recycled paper mill in Conyers, Georgia.

Since the start-up of the Conyers mill, Pratt Industries has grown dramatically through greenfield initiatives combined with the acquisitions and development of corrugated box plants. Company revenues have grown from $100 million in 1991 to $3.2 billion in 2019.

In terms of production, Pratt operates five integrated 100% recycled paper mills that produce containerboard in a wide range of high-performance linerboard and corrugated medium:

- Conyers, Georgia – started up in 1995.
- Shreveport, Louisiana – started up in September of 2009.
- Valparaiso, Indiana – started up in October of 2015.
- Wapakoneta, Ohio – started up in September of 2019.

In addition, the company has announced that it will build two more recycled paper mills in the United States to fuel its near-term growth in sustainable packaging, with the possibly for more mills further into the future.
Currently, Pratt Industries produces about 1.6 million tons per year of recycled linerboard and corrugated medium, which is handled by its growing corrugating and converting division. The division has nearly 100 locations strategically located throughout the U.S. consisting of corrugating operations, box plants, specialty packaging plants, retail-ready display services, warehouses and sales offices. “We want to help many companies to meet their sustainability goals without sacrificing their high-performance packaging requirements. That’s important not only for our environment but also for our customers who realize the importance of sustainable packaging,” says Pratt Industries’ Executive Chairman, Anthony Pratt. Under Mr. Pratt’s guidance, Pratt Industries has become the 5th largest corrugated packaging company in the U.S. and one of the world’s largest, privately-held, 100% recycled paper and packaging companies. The company employs 9,400 people in the U.S. and a further 5,500 in Australasia under Visy Industries, which Mr. Pratt leads as Global Chairman. Group sales exceed USD 6.5 billion. In light of Anthony Pratt’s vision and unwavering commitment to grow Pratt Industries’ vertically integrated, sustainable manufacturing platform, PaperAge has selected him as our 33rd annual Executive Papermaker of the Year.

As a relatively young man (31) you headed to the U.S. in 1991 to grow Pratt Industries. What were your initial goals from an annual perspective — both financial and operational — those first few years? “To survive; to not go broke. We had an old Kraft paper mill in Macon, Georgia, that wasn’t integrated and when the market turned down we were sucking wind. So I sold that business and we started all over again in Conyers as a fully integrated company.”

Your father Richard passed away in 2009, and I’ve read that you ‘absorbed’ his dislike for waste and passion for recycling. How so? “The reason we went into recycling was that waste paper was cheaper than wood. And we worked out how to use the most adulterated waste paper and blend it with OCC to produce boxes that worked at low fiber costs. This will always be the reason that we’re in recycling — it’s not altruism. When we went up against other companies who ridiculed us as schlock recyclers and said ‘why not use trees’ our answer was always “Ask yourself, does the box work?” That’s all that counts.

Are there ‘rules’ of business that you live by, so to speak, in regards to Pratt Industries and Visy Industries? Definitely. Look after your best customers; look after your best people; revenues must always exceed expenses; and collect your debts.
Pratt Industries’ paper mills consume in excess of two million tons per year of recycled paper and the company’s recycling division supplies a large portion of those tons. What’s taking place within Pratt’s recycling operations in terms of efficiency and growth?

We have never been particularly brilliant at the business of collection. It’s a very fragmented and cyclical business. The most important cultural factor for our success is that we knew we could use mixed waste as well as OCC and that has enabled us to choose from a broader range of fibers — that and our fractionation technology.

Pratt Industries started up its newest mill in Wapakoneta, Ohio, in the fall of 2019. It was a $275 million investment and the company’s fifth mill. How has the ramp up gone so far, and how/where will the mill’s production be integrated into Pratt’s system?

It’s been our best ever mill start up. We have a hub and spoke system where the mills are the hubs, the corrugators surround the mills and then the sheet plants surround the corrugators. We tend to build the mills and the corrugators and acquire the sheets. And of course there is also what we think is our great contribution to the industry — the millugator — which means the corrugator is built hard up against the paper mill.

So integration is key.

We learned from the start-up of our Staten Island paper mill in 1997 that market mills just don’t work in America, or anywhere else. You have to be integrated.

Editor’s Note: A corrugated box plant is situated adjacent to the Staten Island mill, which the company opened in 2008.

You’re an advocate of “Export food, not jobs!” What’s this all about and how does Pratt Industries’ focus on the U.S. Midwest tie into this concept?

That’s the slogan behind our Global Food Forum campaign to grow the American food industry to help feed a hungry world. As USDA Secretary Sonny Perdue — a regular at our GFF meetings — says, ‘Do right and feed everyone.’ And of course more than half of all corrugated boxes are sold to the food and beverage industries. So that’s where we come in.

As for the Midwest focus there were two reasons: many food producers and processors are located...
there, and in 2017 I made a pledge to President Trump that we would invest a further $2 billion in America to create 5,000 well-paying manufacturing jobs, mainly in the Midwest. And these are well paying manufacturing jobs, which include programs like assistance with further education and other benefits.

I’m proud to say we’ve invested about 40% of that total already.

You’ve said that you foresee Pratt Industries operating 12 recycled paper mills in the U.S. during your lifetime. Currently, there are five. Could you tell us a bit about growth plans in the near future and possibly beyond?

Yes I do. And I expect them to continue the trend where every one of our mills is a technical advancement over the previous one. We were the first ones in the USA to be at scale with only 100 percent recycled paper mills — but despite being recycled, our mills are not mini mills. They are 220 inches wide doing 1,100 tons a day with basis weight range down to 18 lbs.

Importantly, we set up a company called 'Build Run Repair' which builds our paper mills. Our engineers

Pratt Industries started up its newest recycled paper mill in Wapakoneta, Ohio, in September of 2019.

are constantly making advances in our papermaking capabilities. That trend will continue. And as we continue to grow our paper division we’ll also grow our other divisions — from recycling through displays.

What do you see as some of the major trends in your segment of the paper industry?

The biggest long term trend is 'light-weighting’ the paper. Another will be recycled paper because landfills emit more GHG than global aviation. A third trend will be personalized printing on the box. This goes with digital printing and is particularly relevant to e-commerce. Of course the internet has opened up a whole new opportunity for the paper industry and we must have a digital component or we will become dinosaurs.

In the export arena, traceability of the package is important as is tamper-proofing for secure, clean, safe packaged food.

A fifth trend will be the replacement of plastics with paper, glass and aluminum-based substrates. And for paper to remain the substrate of choice we must remain cost competitive.

And in the future at Pratt Industries?

A trend I see coming will be a centralized operations center for all of our paper mills.

Finally, we will also need to complement our product of paper-based packaging with paper that can replace styrene — selling with it repulpable bubble wrap and stretch wrap.
The Do’s and Don’ts of Boxcar Unloading

Educate your operators on how to execute the boxcar unloading process safely and efficiently and equip them with the proper tools to get the job done.

By Albert Middeke, President, Arnold Company

Improve your operator’s boxcar unloading process by recognizing potential hazards and implementing key best practices:

Don’t: Expect every boxcar to arrive undamaged or properly loaded.

In an operator’s ideal world, boxcars roll up to the dock in mint condition, packed to perfection and ready for unloading. Although, more often than not, an operator’s reality is facing boxcars that arrive with shifted loads, damaged doors or handles that stick or spin from added pressure. This not only slows down the overall unloading process, but compromises their personal safety.

Do: Inspect the boxcar door and opening mechanisms before attempting to open any boxcar.

Prior to opening or closing boxcar doors, closely inspect door, tracks, retainers, stops, and operating mechanisms for obvious damage. Although it isn’t always possible to visually identify damage that will make it difficult or dangerous to open a boxcar, a complete visual inspection is a critical first step to safely unloading boxcars.

Do: Keep your operators out of harm’s way.

Reduce the risk associated with damaged boxcars by adjusting the operator’s position in relation to the boxcar itself. Utilize a boxcar opener for sliding doors or plug doors (or both) that mounts to a forklift device or acts as a stand-alone unit.

Don’t: Damage or force open the boxcar with a forklift.

Boxcars really take a beating when they are improperly forced open by a forklift or clamp truck. For efficiency’s sake and for reducing transportation costs, boxcars are usually a shared asset, and part of a pool. Unfortunately, when a boxcar arrives damaged, it can slow down or even halt the unloading process. All it takes is one delay to create a ripple effect that disrupts workflow and increase costs for everyone.

Do: Choose equipment that best fits the needs of your unloading environment.

Boxcar openers minimize the hazards of opening and closing boxcar doors. At Arnold Company, we work to accommodate your operation’s unique needs, such as:

- The space available between the dock and the boxcar.
- The location of the receiving dock in respect to your facility.
- The type of boxcars received. For example, plug doors, sliding doors, or both.

Don’t: Force open plug doors or sliding doors by hand that won’t move freely without the proper equipment.

In many cases, this is impossible. And in almost every case, it’s unsafe. Opening boxcars manually becomes tricky due to
unforeseen hazards such as handles that stick or spin, or loads that press up against the door creating tension.

**Do: Use equipment designed with an emphasis on safety.**

Keeping employees safe can help you avoid unexpected delays due to injury. Avoid operator strain and injury from manually opening plug doors or sliding doors that may contain hazardous stored energy. Arnold Company’s solutions remove the operator from direct contact with the door and place them away from the danger zone when the door is opening.

**Don’t: Emphasize speed over safety.**

Safety always comes first. Speed and efficiency are of course critical in the unloading process, but creating a safer workplace to prevent operator injuries remains non-negotiable. We begin the design process of our units with employee safety in mind.

**Do: Educate operators on how improving safety contributes to increased productivity.**

There is a direct correlation between operators opening, unloading, and closing boxcars in a safe manner and increased productivity. Hazards and carelessness contribute to injuries and a decline in overall efficiency. Evaluate the risks and incorporate safer procedures.

Arnold Company is the manufacturer of the Door Demon® line of railcar and hopper trailer openers. With a heavy focus on improving safety and productivity, Arnold Company offers railcar openers for covered hopper gates and boxcar doors. For further information about the focus of this article, visit: amcosolutions.com.
Beware of Low Fabric Tension

Many operators use too much force when using a mechanical tensometer during the measurement of tension in forming fabrics, resulting in low tension of the fabrics and a highly negative effect on the paper machine’s runnability.

I want to focus on the signs and consequences of forming fabrics running at a tension too low for optimal performance of your paper machine, and more specifically, one of the causes of low tension — improper use of the tension gauge.

Due to the measuring principle of a mechanical tensometer, it is more difficult to accurately measure a slack fabric than a high-tensioned fabric. Many operators use too much force during the measurement, simply because they learned this gives them repeatable test results. Unfortunately the repeatability has no relation to the accuracy of this measurement.

Now that it’s clear why many papermakers push the instrument too hard against the fabric, what are the consequences? The push itself puts additional tension on the part of the fabric where tension is measured. The result is a read off tension value that is significantly higher than if the fabric were still running ‘free’ (without a tension gauge pushing it down).

So if you want the fabric to run on 6 kN/m and you measure 6 kN/m, you’re done, right?

Not quite so.

In reality the wire could be running at 5 or even 4 kN/m. If you knew the real value is much lower, you would surely increase the machine tension.

Let me point out some serious low-tension problems:

**Slip between drive rolls and fabric.** Low fabric tension allows slip between the drive rolls and the fabric. This slip will wear out the fabric faster. But there is a much bigger problem...
Reduced machine output. A common reaction when slip occurs is to reduce the vacuum on the suction boxes. This will cause a decrease of dewatering capacity in the forming section, and thus reduced machine output. This is by far the most important problem caused by low forming fabric tension and should be avoided at all times.

Damage to dewatering elements. Dewatering elements should have sharp lead-in edges to ‘cut’ the water hanging on the roll side of the fabric. Slack fabrics, carrying a high load of water and fibers, tend to hang in between dewatering elements. Not only will this cause accelerated wear of both the fabric and the sharp lead-in edges of the plastic or ceramic foils. As a consequence, the dewatering efficiency of these elements is also strongly reduced, leaving the papermaker with less dry content and increased costs for replacing dewatering elements.

Guiding problems.Guiding rolls have a problem with slack fabrics. As can be read in our whitepaper Solving Guiding Problems on Forming Fabrics, the guiding roll needs a certain friction between fabric and guiding roll to guide the wire in the right direction. When the tension is too low, extra manipulation and corrections of the guiding system are needed, creating extra fabric wear.

The aforementioned problems — drive slip, hanging between elements and extensive guiding — all have one thing in common: they lead to extended fabric wear. Obviously this causes extra costs for replacement fabrics and production costs.

But faster fabric wear involves another risk — fraying. Strong wear forces working on the fabric will cause the yarns on the roll side of the fabric to show fraying or wear burrs (see Figure 1).

In order to get an accurate measurement with your mechanical tensometer, you need to use as little force as possible.

The frayed fabric will partly block the dewatering channel and limit its dewatering capacity. You also run the risk of congesting the dewatering channel in the fabric as fiber particles get ‘hooked in’ by the fray.

Strong fabric wear is a killer for your machine output, where the lost production due to poor dry content competes with the lost production due to an increased number of stops to replace fabrics.

What Can You Do?
First, you need a reliable instrument to measure the fabric tension to know when to tension your fabric and how much you need it to tension. One such instrument is the Feltest TensioMaster.

Then, in order to get an accurate measurement with your mechanical tensometer, you need to use as little force as possible. Gently push the instrument onto the running fabric so that the leading edges barely touch the fabric and then immediately move it back and read the dial.

Never underestimate the importance of using high quality precision tools in the right way to provide you with accurate performance values, like crucial fabric tension.

Your periodic investments for regular service or timely replacement of measuring instruments far outweigh the enormous costs that are likely to occur when you don’t.

Marcel Lensvelt is the Founder and CEO of Feltest Equipment BV. He can be reached by email at: marcel.lensvelt@feltest.com.
Meeting The Challenge Of Microbe Control In Hygienic Board

For many board mills, staying compliant with the food contact regulations is a continuous balancing act, and the usual suspects for out-of-spec production are bacterial spores. How does one control microbes and prevent spores in hygienic board machines?

By Marko Kolari, Senior Principal Scientist, Microbiology & Biotechnology; and Mark Nelson, Senior Manager, Applications, Deposit Control; Kemira

Over 14 million tons of hygienic board is produced every year for packaging different types of food and beverages: liquid-packaging board, folding-box board, cup stock, and more. For many mills producing hygienic grades, staying compliant with the food contact regulations is a continuous balancing act, and the usual suspects for out-of-spec production are bacterial spores. How does one control microbes and prevent spores in hygienic board machines? We present two approaches.

As the demand for fiber-based food packaging continues to grow, so has the awareness about the safety of food contact materials. Board manufacturers are faced with strict requirements regarding the hygienic quality of their products, and as all producers know, controlling these challenging microorganisms is not an easy task.
The hygienic targets for food packaging board are commonly based on a maximum acceptable level of aerobic bacteria in the final dry board. In practice, after the heat of the dryer section, there are no active bacteria left in the board. The quantity of bacteria in the final board depends solely on the number of bacterial spores. Therefore hygiene control is all about spore control.

A spore is a dormant form of bacteria that is thermotolerant – and thus extremely hard to destroy. The heat of the dryer sector alone is not enough to kill spores in the board machine. With biocides you can destroy active cells, but to kill spores you would need to apply over 20 times the average dose of biocides to your process to be effective. This approach would be financially unreasonable and could lead to unacceptable chemical residuals in the final board, putting food safety at risk. The best strategy for meeting hygienic standards is to therefore prevent the bacteria from transforming into a spore in the first place.

The biology of the bacterial spores allows for two different approaches to spore prevention in hygienic board production. Both approaches have their pros and cons, and when adequately executed, both enable the production of high-quality hygienic board.

**Biocide-intensive Approach: Control All Bacteria**

The first approach to preventing spores in hygienic board production is based on a “kill them all” strategy. This translates to maintaining a very low quantity of all aerobic across the entire boardmaking process. In practice, biocide treatment is aggressive and required in all essential parts of the process around the clock.

When you manage to control the amounts of bacteria to very low levels in the wet-end circulation and the storage towers for pulp and broke, you minimize the risk of spore formation by simply having fewer bacteria. However, as the approach name suggests, this requires the mill to use high amounts of biocides. This results in high chemical costs and the mill personnel needing to handle a lot of hazardous chemicals. And what’s more, the safety of your end-product might be in jeopardy due to biocide residuals.

You could also be increasing your risk of machine corrosion. Intensive microbe control programs typically contain chlorine-based oxidizing biocides which have caused costly corrosion issues for some hygienic board producers. Repairing corrosion damage for instance in the dryer section of your board machine is expensive, for one, and corrosion can also lead to quality issues.

**Preventative Approach: No Room for Spores**

The second option, the preventative approach, focuses on maintaining process conditions that prevent spore formation. Paper and board mills that follow this approach accept a high level of vegetative bacteria in the wet-end and focus on keeping the number of spores low.

This microbe control approach typically uses less biocides. This leads to some self-evident benefits compared to the biocide intensive approach: the mill can achieve lower chemical costs, increase safety in the workplace, and lower the machine corrosion risk, while also minimizing the risk of exceeding compliance limits of biocide residuals in the final dry board.

The preventative biocide program is designed to keep the machine surfaces clean and maintain appropriate conditions.
for instance in the storage towers for pulp and broke. The approach requires close attention to operational practices and inventory management, e.g. minimizing retention, emptying the storage tanks regularly, and monitoring raw material coming into the process.

The upside is that a process managed like this is biostable. Even if there is a small interruption in biocide dosing, it won’t trigger a spore outburst. On the other hand, the high quantity of overall bacteria present is a weakness. A sudden change in process conditions, such as an unplanned machine shutdown leading to extended storage times, requires careful attention or the growth of the aerobic bacteria can get out of control.

**Which Spore Control Approach Is The Right One for Your Mill?**

Without an expert examination of the design and the microbiological status of your board making process and an understanding of the operational possibilities, it’s difficult to determine which microbe control approach would be the better choice. But there are a couple of general rules to remember.

First, biocides alone cannot ensure hygiene in food-packaging board production. Micro-organisms are always present in the paper and board making process and if you don’t manage them correctly, they will always cause problems. You need close cooperation between the operational practices at your mill and the partner providing the microbe control products and the biocide application know-how.

Second, whichever treatment philosophy for spore control you select, you need to stick with it consistently. All the operational actions and housekeeping at your mill site need to be aligned with the chosen approach. This requires a holistic view of the board making process, expertise in microbe control, and a deep level of microbiological understanding.

Marko Kolari is Senior Principal Scientist, Microbiology & Biotechnology (marko.kolari@kemira.com); and Mark Nelson is Senior Manager, Applications, Deposit Control (mark.nelson@kemira.com) – both are with Kemira.
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Cepi announced that according to preliminary figures, the European paper and board production decreased by 3.0% in 2019 compared to the previous year.

European paper industry countries covered by the data are: Austria, Belgium, Czech Republic, Finland, France, Germany, Hungary, Italy, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

European paper and board production follows the 2019 EU economy downward trend, in contrast with a significant uptick in market pulp production as a result of export market demand, Cepi noted.

2019 saw new capacities coming on stream, and upgrades of existing ones, but closures and lower production operating rates dragged down paper and board production. This downward trend was observed in all the top paper and board producing countries.

The slowing down of the EU’s economy in 2019 — from 1.9% in 2018 to 1.1% in 2019 — combined with global instability and trade tensions, impacted the European paper and board consumption, which recorded a 4% decline.

Paper and Board
Domestic paper and board deliveries in Europe went down by 2.6% compared to 2018, while imports declined by 3.9% according to preliminary figures. Paper and board exports grew by close to 0.9%.

Contrary to previous years, packaging paper and board production remain relatively stable in 2019, unable to offset the on-going decline of graphic grades.

The overall production of graphic grades — newsprint and printing & writing papers — fell by more than 8.0% in 2019.

Tissue
The production of sanitary and household papers registered a limited growth, +1.0%.

Pulp
Total pulp production (integrated pulp, plus market pulp) increased by 0.8%. It was over-performed by market pulp production which jumped by 6.1%, as a result of recent massive investments in new capacities. This growth in production is driven by the export market demand. Similarly, exports of market pulp jumped by close to 40% in 2019 according to Eurostat.

To respond to this higher demand, the European paper industry has invested significantly to increase the production of market pulp and further implement the bio-refinery concept. These investments combine higher efficiency in raw material use and the production of highly innovative bio-based products, besides market pulp.

Pulp produced in Europe comes from sustainably managed forests, for example through programs like PEFC (Programme for Endorsement of Forest Certification) and FSC (Forest Stewardship Council), and is increasingly used in various value chains. The level of certified wood, chips and sawmilling by-products was 74% in 2018.

1 Source: European Commission.
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