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Learning Something New – the Old Fashioned Way

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

There’s been a lot reported about the best way for children and adults to not only comprehend what they read, but also enjoy the act of reading in itself. The argument, of course, pits bricks and mortar paper against the dazzle of digital. But a portion of the digital tide is beginning to ebb, and there is growing evidence that the two ‘combatants’ may be able to coexist comfortably in the future.

A report from the Organisation for Economic Co-operation and Development (OECD) examined the impact of school technology on international test results, such as the Pisa tests taken in more than 70 countries and tests measuring digital skills. The report says education systems which have invested heavily in information and communications technology have seen “no noticeable improvement” in Pisa test results for reading, mathematics or science.

The OECD goes on to say that frequent use of computers in schools is more likely to be associated with lower results. OECD’s education director, Andreas Schleicher pointed out that school technology had raised “too many false hopes.”

“If you look at the best-performing education systems, such as those in East Asia, they’ve been very cautious about using technology in their classrooms,” said Schleicher. “Those students who use tablets and computers very often tend to do worse than those who use them moderately.”

Yet another report shows grade school children still choose paper over digital for learning. According to the Paper and Packaging Board’s 2015 Annual Back-to-School Report, which surveyed 3,200 students, parents and educators, 94 percent of students say it’s easier to concentrate while reading a paper copy than a digital version, and 80 percent of K-12 teachers say their students comprehend information better when they read on paper.

And in higher education, more and more studies show that college students prefer print over ebooks. In a survey conducted by Direct Textbook, seven out of ten college students prefer print textbooks over ebooks simply because “print textbooks are easier to read” and “reading ebooks makes their eyes hurt.”

Michael Rosenwald, a reporter for The Washington Post, wrote a story titled, “Why digital natives prefer reading in print. Yes, you read that right.” The following is an excerpt from the story, which very nicely puts ‘print vs. digital’ into perspective.

“Textbook makers, bookstore owners and college student surveys all say millennials still strongly prefer print for pleasure and learning, a bias that surprises reading experts given the same group’s proclivity to consume most other content digitally. A University of Washington pilot study of digital textbooks found that a quarter of students still bought print versions of e-textbooks that they were given for free.”

Naomi S. Baron, an American University linguist who studies digital communication (she also contributed to the 2015 Annual Back-to-School Report), is quoted in Rosenwald’s story in reference to millennials. “These are people who aren’t supposed to remember what it’s like to even smell books. It’s quite astounding.”

In closing, I have to say I like my smart phone and computer and would be lost without them and the instant access they provide to, well, everything. On the other hand I also like reading paper versions of magazines, books and newspapers just because doing so is more comfortable for me. And that’s what it’s all about, figuring out what works best, even if it’s as old fashioned as picking up a pencil and paper.

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Contact Thiele today for details on how your deinking process might benefit from using DEKA. We’ll be glad to show you the test results and set up a trial in your mill.
SCA to Acquire Wausau Paper for $513 Million

SCA announced that it will acquire Wausau Paper for $10.25 per share or total consideration of $513 million in cash. The boards of directors of both companies have unanimously approved a definitive merger agreement.

The merger consideration represents a premium of 40.6% to Wausau Paper’s closing price on October 12, 2015 and a premium of 11.3% to the Wausau Paper 52-week volume weighted average price. SCA has funding available.

Wausau Paper is one of the largest Away-from-Home tissue companies in North America. With approximately 900 employees, the company manufactures and markets Away-from-Home towel and tissue products along with soap and dispensing systems through its Artisan™, DublNature®, DublSoft® and EcoSoft® brands.

Following completion of the acquisition, SCA will continue to honor Wausau Paper’s existing customer contracts and programs.

“The acquisition of Wausau Paper is an excellent strategic fit and strengthens our presence in North America,” said Magnus Groth, President and CEO of SCA. “The Wausau Paper product portfolio complements SCA’s offerings in North America and gives us access to premium tissue in that region.”

Michael C. Burandt, Chairman and CEO of Wausau Paper, commented, “Our Board has undertaken a thorough process to explore all of Wausau Paper’s options and has determined SCA’s offer creates substantial value and is in the best interests of the company and its shareholders. Our customers will benefit from expanded products and services from a company that shares similar values around customer service and sustainability.”

Wausau Paper reported sales of $175 million for the first half of 2015 and sales of $532 million for 2014.

The acquisition is expected to generate annual synergies amounting to approximately $40 million with full effect three years after closing. Synergies are expected in sourcing, production, logistics, reduced imports, increased volumes of premium products and reduced SG&A costs, SCA said.

The restructuring costs are expected to amount to approximately USD 50 million, SCA added.

The completion of the deal, which expected to take place during the first quarter of 2016, is subject to Wausau Paper shareholder and regulatory approvals.

Tranlin Breaks Ground in Virginia for $2 Billion Tissue Paper and Fertilizer Plant

Tranlin, Inc., the U.S. subsidiary of Shandong Tranlin Paper Co., Ltd. (a Chinese pulp and paper company), officially broke ground on October 22 for its first U.S. operation — a $2 billion manufacturing facility. Tranlin’s investment is located in Chesterfield, Virginia and will generate more than 2,000 direct jobs in Virginia by 2020, the company said.

According to Tranlin, the future facility will use proprietary technology to produce tree-free, natural color, straw fiber paper tissue products made exclusively from agricultural field waste such as wheat straw and corn stalks. In addition, the facility will produce humus-based organic fertilizer products using residues from the papermaking process.

“We are even more confident now than we were a year ago that our project is being built on a solid foundation that will allow it to be successful in Chesterfield, Virginia,” said Hongfa Li, the Chairman and President of Shandong Tranlin Paper Company Limited. “After another year of extraordinary work by the entire Tranlin team and many supportive friends in Virginia, we know that all the key factors including environmental, legal, cultural, market, engineering and human resources are in place.”

Jerry Peng, the Chairman and CEO of Tranlin, Inc., said, “We are so excited to be embarking on this next phase of our work together in Virginia, and more importantly, we are so grateful of and encouraged by the supportive community in Chesterfield and Virginia. It is clear we chose wisely when we chose Virginia and Chesterfield.

“We will continue the close collaboration with all the stakeholders here. It is our goal to build a very sustainable partnership with the local community, the farming sector and our vendors.

“Over the past year we have built an excellent core team who have driven the project this far. We expect to accelerate our recruiting and project development,” Mr. Peng added.

Tranlin noted that it has already begun working with many farmers in the region to procure needed agricultural products for manufacturing operations.
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**NORTH AMERICA**

**Pratt Starts Production at New Recycled Paper Mill in Indiana**

Pratt Industries announced on Oct. 5 that its new $260 million recycled paper mill in Valparaiso, Indiana had started production. The mill, which employs 120 people, has the capacity to produce 370,000 tons per year of recycled linerboard and corrugated medium.

According to company chairman Anthony Pratt, the mill “represents the single biggest investment we’ve ever made in the U.S.,” and “the new mill would also increase the company’s annual revenues from approximately $2.1 billion to approaching $2.5 billion.”

The mill, located 50 miles southeast of Chicago, is on the same site as Pratt’s corrugated box plant. It will supply that facility as well the company’s other box-making sites throughout the region with recycled paper.

Pratt also noted that the company will open a new $50 million corrugated box plant in Beloit, Wisconsin in the fourth quarter. The company now has some 130 facilities in the U.S.

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**Graphic Packaging Acquires Converting Assets of Carded Graphics**

Graphic Packaging International recently acquired the converting assets of Staunton, Virginia-based Carded Graphics, a printed folding carton producer with a strong regional position in the food, craft beer and other consumer product markets.

“The acquisition of Carded Graphics’ assets represents a continuation of our strategy to grow in key geographies and end markets,” said Michael Doss, Graphic Packaging’s President and Chief Operating Officer. “The addition of this state-of-the-art converting facility increases our east coast presence allowing us to better service new and existing customers in that region, specifically the growing craft beer markets.

“We are also pleased to welcome Murry Pitts, President and CEO of Carded Graphics, and his outstanding leadership team to the Graphic Packaging team,” Doss added.

The transaction will be funded with existing cash and borrowings from Graphic Packaging’s revolving line of credit.

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**Georgia-Pacific to Invest $110 at Alabama River Cellulose Mill**

Georgia-Pacific has announced plans for $110 million in upgrades to its Alabama River Cellulose (ARC) mill. The investments include replacing one of the mill’s two existing wood yards that process incoming logs, upgrading the other wood yard and a major upgrade to one of the mill’s machines that produce pulp.

According to G-P, the ARC project will allow the mill to better serve customer needs and remain competitive. Work on the project is slated to begin early next year.

“We are pleased to announce this major investment at Alabama River Cellulose,” said Jim Hannan, President and CEO of Georgia-Pacific. “This reflects our company’s strong commitment to our cellulose business, to the global competitiveness of skilled Georgia-Pacific employees, to the states that understand the value we create and to the support of the communities where we operate.”

Tim McIlwain, Vice President of Operations at Alabama River Cellulose, commented, “Our Alabama River Cellulose team is proud of our company’s ongoing investments in our facility and the faith in our team to complete these investments and better serve our customers. Georgia-Pacific’s top priority is to operate the ARC mill safely and reliably. These updates allow our mill team to continue to operate with the highest safety standards while efficiently providing a quality product to our customers.”

The ARC facility includes two independent wood yards — ARC7 and ARC8 — that process over 4.5 million tons of wood per year making the facility one of the largest wood consumers in North America. The facility has two machines that have the capacity to produce hardwood bale pulp, softwood bale pulp, and roll fluff pulp.

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**Cascades Invests $26.4 Million at Drummondville Plant**

Cascades Inc. announced that it is investing $26.4 million at its Norampac corrugated board conversion plant in Drummondville, Quebec to install a new corrugator, thus increasing its production capacity. The current building will also be expanded.

The 45,000 sq. ft. building expansion will be completed in mid-November and the new corrugator will be operational as of January 2016.
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MEXICO

Grupo Gondi and WestRock Form Joint Venture in Mexico

Grupo Gondi and WestRock have agreed to combine their operations in Mexico to form a joint venture, creating a leading paper and packaging company in the country. Grupo Gondi currently operates ten production sites that hold six paper machines, seven corrugated packaging plants and four modern high graphic folding carton plants with pre-printing capacity.

WestRock operates three facilities in Mexico that produce corrugated packaging. WestRock will contribute these facilities, located in Mexicali, Monterrey and Querétaro, and cash to the joint venture in exchange for a 25 percent equity stake in the combined entity, which will operate as Grupo Gondi.

As the majority shareholder, the Grupo Gondi senior management team, led by Eduardo Posada, will manage the joint venture, and WestRock will provide technical and commercial resources to the combination. The business will employ 6,800 people.

The joint venture will be implemented as soon as the transaction is formally approved by Mexico’s Antitrust Authority, the Comisión Federal de Competencia Económica (COFECE).

EUROPE

BillerudKorsnäs to Close Tervasaari Paper Mill by Q3 2016

BillerudKorsnäs announced that it will permanently cease production at its Tervasaari paper mill in Finland no later than the third quarter of 2016. The mill employs about 55 people.

The decision was based on unsatisfactory profitability levels, the company said.

The Tervasaari mill operates one paper machine and has the capacity to produce 100,000 tonnes per year of machine glazed (MG) Kraft paper, which is used in applications such as consumer bags, food packaging, envelopes and technical papers.

BillerudKorsnäs noted that the paper machine is unintegrated to pulp production, which results in an unfavorable cost position, despite the fact that the machine is among the largest of its kind.

In August of this year, BillerudKorsnäs started a feasibility study investigating, among other things, the potential of moving the Tervasaari machine to Skärblacka in Sweden. Skärblacka would offer integration of pulp production and, with the Tervasaari machine, Skärblacka would strengthen its position as one of the world’s most efficient production units for white MG papers.

The study is on-going and will be finalized during the first half of 2016, the company said.

“The closure of production at Tervasaari is a first step in streamlining our production structure,” said Christer Simrén, COO and Executive Vice President, BillerudKorsnäs. “There is right now intensive work being done in the form of feasibility studies that will lead us in our further development of our production structure.

“The machine in Tervasaari is one of the largest of its kind and our staff has done a great job to improve profitability through creative ideas and committed efforts, but unfortunately this has not been enough due to external factors,” Simrén concluded.

WEPA Starts Up New Tissue Production Line in France

WEPA Group has successfully started-up a new Toscotec tissue paper production line installed in Lille, France.

With a net web width of 2820 mm and a maximum drying capacity of 120 tons per day, the new tissue line has a capacity of 35,000 tons per year. According to Toscotec, the machine is running at the maximum operating speed of 2,000 mpm.

The WEPA Group, based in Arnsberg, Germany, produces toilet paper, kitchen roll, pocket tissues, cosmetics tissues, serviettes, industrial rolls and paper towels, and operates 11 plants in Europe.
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EUROPE

SCA to Close Newsprint Machine at Ortviken Paper Mill

SCA said that it will close down a newsprint machine at its Ortviken paper mill in Sundsvall, Sweden by the end of 2015. The machine has a capacity of 135,000 tons per year and is the smallest and oldest of the four paper machines at Ortviken paper mill.

“The global demand for publication paper has declined in recent years, particularly for newsprint, and we have weak profitability at Ortviken paper mill,” said Ulf Larsson, President of SCA Forest Products. “By closing down our smallest and oldest paper machine, we will be able to focus on profitable orders for the more efficient paper machines.

“Ortviken remains one of the world’s largest publication paper mills and we have the prerequisites to become one of the most competitive. We have developed several new publication paper products, which in a short time have captured considerable market shares in a declining market. We are now focusing on producing and developing profitable publication paper products,” Larsson added.

In conjunction with the closure of the paper machine, SCA intends to reduce staffing in production, transport and sales by approximately 95 positions.

UPM Kymi Pulp Mill Expansion Ramping Up on Schedule

UPM said that the ramp-up of an expansion project at its Kymi pulp mill in Finland is going well and on schedule. The EUR 160 million project began in the spring of 2014 and is currently in the final stages.

Kymi’s new debarking plant started operation in June, the modernization of the softwood fiber line was finished in August, and the biggest segment of the project, the new pulp drying machine, started-up in August-September — about one month ahead of schedule.

During the ramp-up, pulp production has exceeded expectations and the quality of pulp has improved, the company said.

UPM noted that the investment in the Kymi pulp mill strengthens the company’s position in the growing end-use sectors of the global pulp market. As the result of the investment, annual production capacity at Kymi will increase by 170,000 tonnes per year to 700,000 tpy of bleached northern softwood and birch pulp.

ASIA

International Paper to Exit Chinese Coated Board Joint Venture, IP-Sun

International Paper on Oct. 9 announced that it entered into a definitive agreement with its Chinese coated board joint venture partner, Shandong Sun Holding Group Co., Ltd., to sell its 55% equity interest in the joint venture (IP-Sun JV). As consideration for the sale, International Paper will receive approximately US$23 million (RMB 149 million) in cash.

Additionally, International Paper will remove approximately $400 million of currently outstanding debt from its balance sheet, along with the other assets and liabilities of the IP-Sun JV, following completion of the transaction.

International Paper also announced that it is pursuing strategic options for its corrugated box business in China and South East Asia and has signed a non-binding letter of intent with a prospective buyer based in China.

“International Paper undertook a thorough review of its position in serving the Chinese and Asian markets,” said Mark Sutton, International Paper’s Chairman and CEO. “The Company remains committed to serving these very important markets, but concluded we could be more effective supplying this region with globally competitive products primarily through our Ilim joint venture in Russia and from the U.S.”

The IP-Sun JV transaction is expected to be completed within the next five months, subject to satisfaction of closing conditions, including obtaining required Chinese governmental approvals.

International Paper estimates the agreement to sell the Chinese coated board joint venture, which started in 2006, will result in net pre-tax noncash asset write-offs of approximately US$200 million to be recorded in the third quarter of 2015.

Mondi Group to Acquire KSP

Mondi Group signed an agreement for the acquisition of 95% of the outstanding share capital in KSP, Co. and related interests.

KSP is a flexible packaging company that specializes in high barrier film lamination and converting for commercialized applications for the food and beverage industries. The company’s main manufacturing site is located in South Korea and it holds an interest in a plant near Bangkok, Thailand.

KSP exports about two thirds of its production — primarily to the US, Europe and other Asian countries. For the twelve months ended December 31, 2014, KSP generated revenues of approximately US$50 million.

The deal remains subject to regulatory clearance and other customary closing conditions and is expected to be completed during the fourth quarter of 2015.
**INDUSTRY SUPPLIERS**

**Valmet to Deliver New Pulp Cooking System to Clearwater Paper**

Valmet will deliver key technology to Clearwater Paper’s Lewiston, Idaho, pulp and paper mill upgrade project. Valmet’s delivery includes a CompactCooking G2 pulp cooking system, a new plant for generating polysulfide and a minor upgrade of existing bleach plant.

Construction of the upgrade project got underway in October and completion is expected in September 2017.

This delivery is part of Clearwater Paper’s $160 million project to install a continuous pulp digester that will replace 12 batch digesters. Benefits from the project include significant reduction in air emissions, improved pulp quality, increased production and a more efficient utilization of wood chips.

John Deuser, Project Manager in Lewiston, said, “The efficient utilization of raw material is a vital part from a sustainability perspective. We decided to base our new cooking process on polysulfide to optimize yield. The concept and process included in the CompactCooking system from Valmet was a perfect match to our targets.”

**Pöyry Awarded Paper Machine Engineering Contract from APRIL**

Pöyry has been awarded a detailed engineering services contract from APRIL for the fine paper machine project in Pangkalan Kerinci site in Riau Province, Indonesia. The contract covers detailed engineering services for the new paper machine and Balance of Plant (BOP).

The new paper machine, PM3, will use 100% plantation fiber from existing sources and produce 330,000 tpy of digital-ready fine papers, increasing APRIL Group’s existing production capacity to 1.150 million tpy with much of the new capacity destined for export markets.

“The global demand for digital paper products continues to grow and APRIL aims to ensure we remain in position to leverage this opportunity,” said Tony Wenas, Managing Director of APRIL Group Indonesia. “Our product, PaperOne, offers the high quality that the digital market needs and is made from 100% renewable fiber from certified plantations.”

Start-up of the new machine is scheduled for the third quarter of 2016.

**Kadant Awarded $7 Million Order for Recycled Fiber Processing Line in Europe**

Kadant announced that it received an order totaling approximately $7 million from a paper producer in Southern Europe for recycled fiber processing equipment to be used in the production of packaging.

“We are pleased to have been selected to provide this turn-key recycled fiber processing line for a major rebuild project in Southern Europe,” said Jonathan Painter, President and CEO of Kadant. “This rebuild is significant in that it is part of a broader trend of converting a machine’s production from printing and writing grades to containerboard used for packaging.

“As these types of conversions make increasingly more economic sense to the paper industry, Kadant is well positioned to leverage its expertise and broad product offerings used in containerboard production,” he added.
**PAPER**

- **Clearwater Paper** announced the retirement of Danny G. Johansen as president of the company’s pulp and paperboard division. Patrick T. Burke, who currently serves as the company’s president of the consumer products division, will assume the newly created consolidated role of group president overseeing both the pulp and paperboard and consumer products businesses. Johansen is expected to continue to serve the company until the end of March 2016 to assist with the transition.

- **Greif, Inc.** announced that David Fischer stepped down as President and Chief Executive Officer and as a member of the Board of Directors of the company on October 31. Pete Watson, who has served as Chief Operating Officer of the company since January 2014, succeeds him. Fischer will remain with the company through December 31, 2015 to assist with the transition process.

  From September 2012 until December 2013, Watson was the Vice President and Group President, Paper Packaging & Services, Global Sourcing and Supply Chain and Greif Business System. Since he joined the company in 1999, Watson has served in a variety of positions, including Division President, Paper Packaging & Services, and President of CorrChoice (a division of the company).

- **PaperWorks** announced that Brandon Clairmont has joined the company as Senior Vice President of Packaging Sales. Clairmont has more than two decades of experience with food manufacturing, foodservice and packaging companies, most recently as vice president of sales for McCormick & Company, Inc. His career has included sales and account management leadership roles at Command Packaging, Huhtamaki, Sweetheart Cup and Gilbert Foods.

- **WestRock** announced that John Fortson has been named Chief Financial Officer of Ingevity, the company’s specialty chemicals business. Fortson comes to Ingevity from AAR Corporation, a leading global aviation and aerospace company, where he served as CFO and treasurer.

**INDUSTRY SUPPLIER**

- **Kemira** has appointed Olli Turunen as Vice President, Investor Relations, effective November 17. Turunen has previously worked for Sanoma Oyj, an international media company, as Head of Investor Relations.

**RECOGNITION**

- **Pete Grogan** of International Paper is the recipient of the prestigious Phil Alpert Memorial Award by The Paper Stock Industries (PSI) Chapter of the Institute of Scrap Recycling Industries (ISRI). The award was named in tribute to Phil Alpert, a former president of the PSI chapter. The recipient of the Alpert Award must have been involved with the PSI Chapter for at least 10 years as well as made a significant contribution to the overall betterment of the paper recycling industry.

  Grogan has been involved in the recycling industry for more than 40 years, working tirelessly for the success of the paper and recycling industries. He has worked in a number of capacities in the industry, including at R.W. Beck and Associates, Weyerhaeuser Containerboard and Recycling and most recently with International Paper.

- **Valmet** has appointed Kari Saarinen as Chief Financial Officer, effective November 15. He succeeds Markku Honkasalo, who is leaving the company at the end of November. Previously, Saarinen held the position of Senior Vice President, Strategy and Operational Development. He will continue as the member of Valmet’s Executive Team.
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The skilled men and women – known as takumi – who work on the Lexus production lines, hone their dexterity skills by learning how to fold paper into an origami model cat, using only their non-dominant hand. The Origami Car takes the spirit of this talent to a far higher level, while also embracing the spirit of Lexus’s Creating Amazing global brand campaign.

The Origami Car has a fully fitted interior, functioning doors, headlights and rolling wheels. Thanks to an electric motor mounted on its steel and aluminum frame, it can even be driven.

In terms of size and complexity, the project was an unprecedented undertaking for LaserCut Works and Scales and Models, UK-based specialist companies with extensive experience in the design and creation of prototypes, architectural models and bespoke commissions.

Ruben Marcos, Scales and Models Company founder and director explained: “This was a very demanding job, with five people involved in the digital design, modelling, laser cutting and assembly.”

The creative process presented the team with a series of tough challenges: “The seats took a few attempts to get just right and the wheels required a lot of refining. Once we could see the physical pieces taking shape, we could identify where we needed to make improvements – as with anything, there were some elements of trial and error, but as we had all the resources we needed in-house, this made the changes easier to produce.”

Lexus provided the team with a digital 3D model of the IS, which was then divided into a series of principal parts, such as the main body, dashboard, seats and wheels. These were then digitally rendered in 10mm ‘slices’ to provide the two-dimensional profiles needed for the laser cutting of each of the 1,700 sheets of 10mm-thick of cardboard – supplied by packaging experts DS Smith. Each layer was given its own reference number to help ensure it was assembled in the right sequence and the entire assembly was done by hand. A water-based/wood glue was used, which had to be left to set for 10 minutes after each application. Accuracy was vital, as changes couldn’t be made once the glue had dried.

In all, the Origami Car took three months to build.

“In effect we created our own vehicle production line,” said Ruben. “There was a lot of repetition in the process and we had to work with military precision, just like the teams that make the real Lexus cars.”
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★ Uni-directional unwind provides smooth delivery of paperband during turn-up with unprecedented precision and control
★ Reduce sheet wrinkles and paperband breaks

NEW nip AQUISITION TECHNOLOGY

★ Reduce missed turn-ups
★ Eliminate web breaks caused by excess paperband
★ Reduce unnecessary paperband waste

“TUSA V has been a very reliable investment for our paper machine. It has greatly reduced the number of missed turn-ups across all grades.”

- Allen Bowdler
General Manager
Pratt Industries - Conyers, GA, U.S.A.
The pulp market has really been a mixed bag in recent months. Overall demand has been increasing, but growth varies widely worldwide. Pricing has similarly varied widely by grade and region. For example, softwood pricing has been steadier in North America although it has slipped a bit this year, while softwood spot prices in Asia fell considerably for several months before flattening out this past summer. Recently, however, prices began a more widespread slide in North America and overseas for both softwood and hardwood grades. The question is whether they continue to fall or whether it’s just a short term blip.

As noted, while demand for market pulp has continued to grow on a global basis, growth has varied widely by region, and it has been considerably stronger for hardwood than softwood. In 2014, market pulp world shipments grew 2% to 45.5 million tonnes. Shipments to N.A. fell 0.2% while shipments to Europe grew modestly, rising 0.7% to 14.3 million tonnes. Shipments to China posted a 2.5% gain to 10.7 million tons. Shipments to other regions rose 4.8% to 12.8 million tons. At the end of 2014, inventories stood at 34 days or supply for all grades.

This trend has continued into 2015, driven by growing world demand for both long and short fiber for use in tissue and printing and writing grades. Tissue has become one of the largest markets globally and has been a key factor sustaining market pulp demand growth in emerging markets such as China. Printing and writing demand has continued to contract in North America and Europe, but in other regions...
these grades continue to grow. Global chemical pulp demand is up 4% through the third quarter of 2015 with softwood shipments up 1% and hardwood up 7%. Chinese demand is up 13%.

The concern going forward is the direction of a sluggish world economy and fears it could drag down pulp demand. After a slow start the US economy picked up a bit in the second quarter, giving the first half of the year a solid, but certainly not stellar, annualized growth rate of 2.3 percent — only slightly below the 2.4% rate in 2014. However, weakness continued in several sectors and the trade balance shifted to favor imports owing to the strength of the U.S. dollar. The European economy appears to actually be in decent shape overall but there are worrisome concerns about the impact of a large surge of immigrants and continued problems in areas such as Greece.

Certainly, China is the biggest unknown. In both the first and second quarters, real GDP was up 7.0 percent from a year earlier — the slowest rate of growth since 2009 — which sent shivers through the global economy. In addition, industrial production has been rising at a low rate not seen since 2009. Exports have declined in part due to weak global demand, but also due to exchange rates as the dollar’s rise have sent the renminbi soaring against the euro and the Japanese yen.

As noted, prices have been weak particularly since mid-summer of this year. NBSK prices have fallen considerably in Asia where they are down from the $750 level posted early this year to $650 or lower recently, while North American NBSK list prices fell in early November for the first time in several months to the mid $950s range after riding at over $1,000 for most of 2014 and about $980 in the first half of the year. Hardwood has been a different story as prices improved in the first half of 2015 from low levels reached last fall before they dipped in most regions over the late summer and fall.

The weakness in price, however, isn’t solely demand or supply driven; rather it’s in part in response to a huge swing over the last year in exchange rates. The strong U.S. dollar has become a key factor for all commodities including market pulp. Both the Euro and Canadian dollar and other currencies have fallen 20-25% from peak levels reached in early 2014 and has made mills in Canada and other regions very competitive as pulp is priced in dollars. It’s also significantly raised local currency prices for pulp. However, some of this pressure may have eased, or at least hasn’t gotten any worse. After falling steadily for several months last year from a level of about 1.4 USD/Euro in early 2014, the Euro has stabilized in recent months at about 1.10. The Canadian dollar has remained very low at about $0.75 to $0.77 since July and has continued to lag year ago levels. Exchange rates have also changed the competitive landscape a bit by putting U.S. mills at a disadvantage.

CAPACITY GROWTH

Capacity growth is another factor that’s been a concern, mainly for hardwood pulps, since softwood capacity is flat by comparison. Hardwood capacity is growing most notably for BEK in South America. In fact, in early 2015 there were fears this new capacity would undermine prices more significantly. As noted, hardwood prices did fall last year, but in early 2015 they recovered. The recent weakness has been modest and thus the capacity has apparently come onto the market more slowly than first envisioned, including CMPC’s 1.3 million tpy mill in Brazil that started up this past summer. In addition, Arauco is scheduled to bring 1.2 million tpy online in Brazil in the fourth quarter.

A key factor, however, recently helping to support prices somewhat, or at least avoid a larger slip, has been the shutdown of the huge APRIL hardwood mill in China due to a water shortage.

LOOKING AHEAD

Looking forward, it appears that prices could continue to slip for the next few months. However, it appears that supply and demand could swing back to favor producers by sometime next year and possibly even continue into 2017. There is only limited softwood capacity scheduled to come online next year and overall market growth may be able to absorb the new hardwood capacity that’s planned. If the global economy can continue to stumble forward and China continues to grow even at reduced rates of “only 7%” annually, pulp demand will slowly expand and operating rates should return to stronger levels that could support a recovery in pricing next year.

Harold Cody is a contributing writer for PaperAge. He can be reached by email at: HCody@paperage.com.
Papermaking 4.0 — Networked Solutions Optimize Paper Manufacturing

Industry 4.0, Big Data or the Internet of Things — the networking of processes and communication between machines — are what will shape the future. Digital advances are making it possible, especially a powerful and widely accessible Internet.

By Voith Paper

Editor’s note: Industry 4.0 (Industrie 4.0 or the fourth industrial revolution) is a collective term embracing a number of contemporary automation, data exchange and manufacturing technologies. Industry 4.0 facilitates the vision and execution of a “Smart Factory.” Within the modular structured Smart Factories of Industry 4.0, cyber-physical systems monitor physical processes, create a virtual copy of the physical world and make decentralized decisions. Over the Internet of Things, cyber-physical systems communicate and cooperate with each other and with humans in real time, and via the Internet of Services, both internal and cross-organizational services are offered and utilized by participants of the value chain.

A paper machine that detects a break before it happens; maintenance materials are ordered automatically — online and on-demand; self-setting machine configuration; the industry is using more and more cyber physical systems. With Papermaking 4.0, Voith is making an intelligent contribution to increasing the efficiency, productivity and quality of the entire paper production process supply chain, even in existing systems and equipment.

“The term has been chosen deliberately to address Industry 4.0,” says Dr. Christian Naydowski, Vice President Technology for Papermaking 4.0 at Voith Paper.

Which IT measures are going to be the key to the smart factory? Voith, for one, is offering specific product solutions — and not just for new plants and equipment.

“To put it in a nutshell, there are three aspects involved: visualization, stabilization and optimization,” Dr. Naydowski says. “We are creating processes that work transparently in our customers’ paper machines and can be stabilized by means of actuators and controls. A logical consequence is that we are then able to also optimize processes that are stable. Connecting lots of sub-processes with one another to utilize quality data in stock preparation through to the finished product, for example, results in a measurable monetary benefit. In this context, dispensing with the excessive
use of valuable resources plays a crucial role. Energy, chemicals, fibers and time are all sources for this added value.”

**EXPLOITING THE OPPORTUNITY OFFERED BY INDUSTRIAL CHANGE**

The fact is that in recent years the Internet has dominated and changed our daily lives and has consequently influenced economic processes to a much greater degree than many people would ever have imagined. Every day more than 200 billion emails are sent, while Google’s search engine executes some 3.5 billion searches, and 8.4 billion videos are watched on YouTube. These figures are from March of 2015, and it can be reasonably assumed that this trend will continue.

“Only those who face up to these developments and see this global change as an opportunity will be able to leverage existing potential for excellence and exploit new possibilities,” Dr. Naydowski emphasizes. And as with all technological developments, growing acceptance goes hand in hand with increasing expectations.

“At Voith, we know that our customers want forward-thinking solutions that offer clear added value and a tangible economic benefit. We regard Industry 4.0 as a sphere of activity for new business models, provided that the five crucial technological areas to achieve this have been mastered.”

These are embedded systems (cyber physical systems, CPS), smart factory, robust data networks, data transfer in real time and absolute IT security.

**MORE PRODUCTIVE, LESS EXPENSIVE**

In order to better understand the environment of the new digital opportunities, it is worth reviewing what today’s scenario involves. In the context of Voith’s paper machine technology, the numbers tell the story. A modern board machine already incorporates 20,000 I/O (input/output processes), transmits around 160,000 data signals per second, and uses 7,000 actuators. To make this possible, 900 metric tons of copper cable had to be installed in this machine. Even these figures, Dr. Naydowski believes, will “definitely multiply” with the next machine as a result of technological advances. “But that is exactly what we do not want any more. Today, for example, copper cable can be reduced thanks to modern, fast LAN networks, although the number of signals will increase substantially. The Internet is now making this possible.”

Voith has set for itself the goal of helping to shape the future with technological developments, so that in the paper industry, costs are reduced while productivity and flexibility are increased. Voith has defined concrete figures for this ambitious goal, says Dr. Naydowski. “We believe that 10 percent more productivity and a 10 percent reduction in costs are absolutely realistic.”

**DIGITAL SOLUTIONS**

Voith has developed OnEfficiency to maximize the paper machine’s potential. With this system consisting of several sub-systems, processes are stabilized and more scope is created for optimizations. For example, with OnEfficiency it is possible to improve the yield from the DIP flotation process. We can also achieve strength targets for board with minimal use of starch and adjust the porosity of newsprint or base papers on the running paper web toward one target variable.

OnEfficiency Forming gets right to the process at the heart of papermaking: sheet formation. This is measured and analyzed with a package of sensors so that dewatering, retention and flocculation can be stabilized and at the same time coordinated. As a result of the stable process, raw materials and chemicals can be saved and energy usage reduced. It is...
at this point that we come full circle to the three aspects mentioned by Dr. Naydowski at the beginning: visualization, stabilization and optimization. Sensors and actuators are the technical basis for visualization and for creating transparency in the individual processes in a paper machine.

Regardless of which solution is used, (i.e. OnEfficiency Forming or OnEfficiency DIP, which proactively adjusts the downstream flotation and bleaching process in the deinking process and therefore reduces the use of recovered paper, energy and chemicals), the aim is process stabilization, the outcomes of which offer the paper manufacturer a cost benefit.

But that is not all. Every paper manufacturer wants quality that is as consistent as possible, but the reality is often very different. “Although the paper quality might still be right when the machine starts up, the values can start changing after just a few weeks or months,” says Dr. Naydowski.

Voith measurements on various paper machines taken over a longer period have shown that over time, the quality diverges from the defined corridors for dewatering, retention, formation or porosity. The basic conclusion is that the huge volume of data available in paper manufacturing cannot be effectively managed with manual methods over longer intervals. But that is exactly what Voith’s “Papermaking 4.0” with its various systems, is able to do.

OnCare is another of these systems. It identifies the smallest of malfunctions and can diagnose initial damage to roll bearings before it becomes a problem. This prevents unscheduled and costly machine downtimes. OnCare monitors important areas of the paper machine online, such as pressure pulsation in the approach flow system or the vibrations of presses, coating units and calendars. In case of irregularities in the paper, the cause is automatically identified via synchronous averaging. A high-frequency online analysis investigates quality data such as basis weight, thickness and moisture. With this analysis tool, Voith has created a mobile and fixed option for data collection. In the mobile version, operation and quick diagnosis can be performed using any mobile device directly at the machine.

**PAPERMAKING 4.0 – ALREADY PROVEN IN PRACTICE**

Regardless of whether it is based on visualization or stabilization solutions, smart preventive maintenance virtually announces and runs itself before the papermaker at the machine is even aware of it.

And another innovative aspect is that OnEfficiency has a modular structure. Every module as such already provides a measurable benefit. When installed consecutively, the modules network with one another. The end result is a Papermaking 4.0 concept.

“We can document through many examples that Papermaking 4.0 — the use of intelligent systems that network with other systems — pays off within just a few months and delivers the targeted cost and optimization benefits,” says Dr. Naydowski.

**Reference.**

1 Hermann, Pentek, Otto, 2015: Design Principles for Industrie 4.0 Scenarios.

For more information about Papermaking 4.0 by Voith, please contact: Dr. Christian Naydowski: Christian.Naydowski@voith.com or Matthew Watts: Matthew.Watts@voith.com.
Online registration is now available at Paper2016.com/registration. Early discount rates on Full Access Passes and Limited Access Passes are available until February 12.
Most European M&A in the tissue and towel market will have to be driven by efficiencies and synergies from technology, cost-sharing, brands, low-cost platforms, etc.

There are distinct segments in the tissue and towel business: commercial, consumer, and specialty. The specialty market is quite small — about 2% of the total. The commercial segment accounts for just 13% of the 10 million tonnes produced in Europe, with the consumer grade accounting for the majority at 85%.

**LIGHT CONSOLIDATION**

As Figure 1 indicates, there has been relatively little consolidation in the market since 2007. Kimberly-Clark sold off one mill in 2010 and three mills in 2012, but still maintained most of the company’s capacity. Effectively, the spinning off of their mills to single buyers actually reversed consolidation.

P&G sold their European tissue and towel operations to SCA in 2007 and Georgia-Pacific exited Europe in 2011, also selling their mills to SCA, currently the market’s largest shareholder with 23% share.

LPC sold their mills to Sofidel in 2010 and Kartogroup sold to Wepa in 2007, which clearly made the market more consolidated, but not significantly so, since there are still a

Mature markets consolidate for a variety of reasons. Typically consolidation happens when large players, answering to investors, look to wring additional profits out of the market by acquiring a larger share of the production capacity and therefore benefitting from synergies and efficiencies that come from the larger volume. Moreover, with a large enough share, companies can optimize the use of their capacity to maintain their profitability despite market volatility or even declining demand. But the benefits conferred from such M&A strategies do not seem to hold sway in Europe, and the European tissue and towel market is no exception.

Looking at the demand side, tissue and towel historically grows with the population of a given market. In Europe, the expectation is that the market will be fairly flat for tissue and towel, with pockets of modest growth anticipated in the Western and Nordic countries. The impact, if any, of the refugee migration crisis notwithstanding, Eurostat projects a notable 2.6% decline in Germany’s population, but there are gains in both the UK (3.5%) and France (2.2%) which levels out the data to a mere 0.5% increase over the next eight years.
large number of small competitors distributed across the continent (Figure 2).

All-in-all, Europe has 142 companies making tissue and towel in 234 mills; clearly numbers large enough to keep any one participant from having significant market power.

WHERE WOULD FURTHER CONSOLIDATION COME FROM?
So the question is whether there is likely to be additional consolidation in the European tissue and towel market. While it is theoretically feasible for a company to purchase enough capacity to amass at least a 30% share (characteristically, consolidation requires the leading player to have ≥30% share if market dynamics are to change), the cost of acquiring such capacity would be high. Moreover, only half of the benefits of consolidation — those coming from synergies and efficiencies — would be available until the very end of the consolidation process. Other benefits of consolidation — the ability to optimize the supply/demand balance — would not come until the consolidator’s share reached the critical threshold of around 30%. With its 23% market share, SCA may be the participant most able to achieve full market consolidation.

For others, would it be more cost-effective to simply add on to existing company-owned facilities, assuming that they are strategically placed and can produce competitively in the market? Or are there older, smaller mills poised to be retired, taking sufficient capacity off the market so larger firms gain share by default? The cost curve (Figure 3) shows a number of fourth quartile mills that are small and independent who perhaps would be vulnerable were market conditions to become difficult. On the other hand, the cost curve also shows a large number of small but low-cost assets that would likely not leave the market under such duress.

Flat market conditions create an environment where profitable growth is more likely to come from M&A than from organic expansion. Most European M&A in the tissue and towel market will have to be driven by efficiencies and synergies from technology, cost-sharing, brands, low-cost platforms, etc. European tissue and towel M&A events will depend on the specifics of each potential combination — how logistics would integrate; how product lines match; what each mill’s technology allows it to make; what buying power can be created for purchases of fiber, chemicals, etc.; and others. There is a rich pool of candidates to draw from. Analysts using FisherSolve™’s detailed data on each mill will undoubtedly find profitable combinations.

This analysis was compiled by Jon Kerr, Sr. Consultant at Fisher International, using FisherSolve™, the premier data and analytics resource for pulp and paper industry professionals making important capital and operating decisions. FisherSolve accurately describes the assets, capacity, and costs of every pulp and paper mill in the world making 50 TPD or more to deliver the information and perspective necessary to make business decisions more reliably. To learn more, please visit www.fisheri.com.
Purge Your Nozzle Woes Away

Plugged spray nozzles on a paper machine are not only frustrating, they negatively impact the machine’s performance and product quality. But keeping those nozzles clean may be simpler than you thought

By Steve Corlew

You may be surprised at how many nozzles on any given paper machine right now are plugged, and those are only the ones an operator can see from the side of the machine. And what about the nozzles in the middle of the machine that are out of sight? The fact of the matter is, nozzles are eventually going to plug; it’s inevitable.

The result of all these plugged nozzles are frustrated pulp and paper mills who assume a new showers is the answer. At Southern Paper Group (SPG), we supply a wide range of equipment and services to the paper industry, and one of those pieces of equipment are showers. And as much as we like to build them, there are times when a new type of nozzle may be a more cost effective and longer term solution to the problem of constantly plugged nozzles.

To back up a bit, for some applications, a new brush shower is a perfect solution. However, in many cases, changing the nozzle type to nozzles that clean themselves, i.e. spring purge nozzles, and keeping the existing shower header in service, will lead to better nozzle performance.

The purpose of this article is to explain how and why the decades-old spring purge nozzle type works, how it can improve your process, and what needs to happen to keep the nozzles spraying for a very long time.

WE HAVE A PROBLEM

When it comes to brush showers, a frequent request is, ‘We would like a quote for a new brush shower assembly as ours is worn out’ or ‘what we have is not working and we need a solution that will keep our nozzles from plugging.’ The reality is this: nozzles are going to plug sooner or later regardless of how clean a mill’s water supply is and/or how many filters are in place in the system. In some case, nozzles eventually plug even with a brush installed.

To compound the problem, the brushes themselves begin to degrade the moment they go into use and progressively wear out depending on the application. Although brushes can be replaced every 5 years or so, the alternative is to simply change the nozzles, which is much easier than changing out a brush assembly.

Before going further, it’s important to note that users of spring purge nozzles either like them or they don’t. In regards to the latter, the frustration is not unsubstantiated. But, there is hope and a proven path forward.

Success with spring purge nozzle types has less to do with the nozzle itself and more to do with the supplier schooling the user on the workings and operation of this type of nozzle. Furthermore, it is of the utmost importance that these nozzles
Purge them, and purge them often.

So your mill’s current spring purge or non-spring purge nozzles aren’t doing the job expected of them and you’re thinking about a new shower to replace the existing header. But what if it’s a case of plugged nozzles?

This problem can be remedied quite easily, quickly, and doesn’t necessitate a capital project to accomplish. It simply requires the user understanding what makes the nozzles in question operate properly over the long term. The answer: purge them, and purge them often.

How often should nozzles be purged? We recommend at least one purge cycle every 24 hours. The daily purging regenerates the nozzles to a clear state for most freshwater applications and allows the nozzle to open and close, i.e., allows the moving parts to move and eliminate any debris that has built up inside the nozzle area. In some cases, depending on what is in the shower water, the user may want to purge every 30 minutes (via a valve on a timer) as purged nozzles can work well in applications where solids loading can be as low as 20 ppm to as high as 1,000 ppm.

To clarify the term “purge” when related to spring purge nozzles means decreasing the water supply to the nozzle so that the internal spring can allow the internal piston and top button to separate and allow low-pressure water to wash out any debris that may be plugging the nozzle orifice. The nozzle orifice, in this case, exists when the nozzle is in “operating condition,” which means the piston and button at the top of the nozzle are mated together and create the spraying orifice. Whether it be a fan or needle jet, the process is the same.

Spring purge nozzles can be employed in a variety of showering applications including: oscillating high-pressure needle jet, fan shower applications — knock off, chemical, lube, breast roll apron, rotating gravity strainer showers, etc.

Benefits of clean nozzles include:
- Improvement in moisture profile.
- Decrease in sheet defects.
- Increase lifetime of consumables, such as wear surfaces (UHLE box covers, wear strips, doctor blades, rolls, high cost consumables, i.e. forming fabrics and press felts).
- Consistent sheet dewatering characteristics at the formation level that transfer through to the press section, and continue all the way to the finished product.

Clean Spraying Nozzles

Of course we all want unplugged clean spraying nozzles, and spring purge nozzles can help us accomplish that easily, economically and safely via automation — no manual valve manipulation required — and in most applications without having to purchase new shower headers.

Almost all shower header nozzle bases can accept an adapter that will allow the installation of a standard spring purge nozzle. In some cases, such as brush showers with worn brushes, users have removed the brushes (or left them in) and installed custom-size threaded spring purge nozzles that screw directly into their existing shower headers. Automation is not required, and a manual inlet valve can also allow for purging. However, climbing a paper machine to turn a valve can be a safety concern that can be eliminated via automation.

Once the spring purge adapter and nozzles have been installed, the shower header is then typically rotated to accommodate the non-perpendicular spray from the centerline of the shower header. The new spring purge nozzles transform the once ‘pain in the neck’ shower to something that, with an automated AutoPurge™ valve, can be a ‘set it and forget it’ solution.

Trim knock-off conversion from quarter NPT to spring purge nozzles.
The AutoPurge system is an automated inlet valve controlled via a PLC in a NEMA 4 enclosure with a few adjustable parameters that can be factory preset and also changed onsite by the user to fine-tune the purge frequency for each shower. By simple adjustments of timers, it is possible to have showers running off the same water source purge at different times so there is only one shower purging at a time. In addition to the repeat timer purge cycle, there is also a purge “on demand” function, which, for example, is helpful for during a clarified whitewater upset condition.

RESULTS
Actual reported results from customers using spring purge nozzles in the manner described above:

- Up to 50% increase of life in press felts.
- Greatly reduced wear on Herringbone, Slotted and Wear Strips on UHLE box wear surfaces.
- Moisture profile consistency markedly improved due to machine cross direction fabric uniformity directly related to changing only the past nozzle type to spring purge type nozzle (and purged often).

When nozzles are spraying so well that you forget you have showers, then you’ve purged away your water woes, and that’s a nice place to be.

Steve Corlew is Director of Operations – Spray Division, Southern Paper Group. He can be reached by email at: steve@spgspg.com.

HP needle jet conversion from brush to spring purge with custom nozzles.

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I certify that all information furnished is true and complete.

John F. O’Brien, Jr., Managing Editor
AF&PA Sustainability Awards: Honoring Members’ Accomplishments

By Donna Harman, President and CEO, AF&PA

A F&PA recently recognized seven member companies for their commitment to sustainability through our 2015 AF&PA Sustainability Awards. The awards recognize exemplary sustainability achievements in the paper and wood products manufacturing industry. These annual awards are part of the industry’s demonstration of continuous improvement under AF&PA’s Better Practices, Better Planet 2020 initiative.

AF&PA sustainability award applicants are considered in two primary categories, leadership and innovation. Projects that support the Better Practices, Better Planet 2020 sustainability goals are considered for “Leadership in Sustainability” awards. Within the Leadership category, there are five possible awards that correspond to the goals: Paper Recovery for Recycling, Energy Efficiency/Greenhouse Gas (GHG) Reduction, Sustainable Forest Management, Safety, and Water. The “Innovation in Sustainability” award is reserved for projects that merit recognition for their contribution to sustainable business practices, rather than one of the specific goals.

Seaman Paper Company received a Leadership in Sustainability Award (small company) for Energy Efficiency and GHG Reduction for their Soft Steps Forward Initiative. Seaman Paper sought to decrease their purchased fuel and electricity dependency. The company now produces 97 percent of their steam requirements from carbon-neutral biomass, and installed a backpressure turbine that runs on steam to meet their electricity needs. These measures helped decrease Seaman Paper’s total energy cost despite the sharp increases in oil and electricity costs over the past decade.

WestRock Company also received a Leadership in Sustainability Award for Energy Efficiency and GHG Reduction. Their Covington Power Island Project uses carbon-neutral biomass to generate renewable electricity for sale to the grid and supplies clean energy to their Covington, Virginia paper mill. It has enabled the mill to become electrically self-sufficient, greatly reduce coal use and greenhouse gas emissions, decrease freshwater usage and generate less waste water.

Evergreen Packaging was recognized with the Leadership in Sustainability Award for Paper Recovery for Recycling for the On-Packaging Recycle Use project. Surveys show that consumers look for a recycle logo on a carton to determine whether it is recyclable. Evergreen developed and implemented a tracking system to find out which customers did not use a logo on their cartons. This information is used to get more customers to include the logo on their cartons and communicate to consumers that those cartons are recyclable, thereby increasing recovery.

Resolute Forest Products received the Leadership in Sustainability Award for Safety for their Working Towards Zero Incidents project. A multi-disciplinary task force at Resolute took the initiative to design a safer, watertight, more comfortable, breathable chemical protective suit that is appropriate for all mill-related working requirements. In addition, the new suits can be used for at least a year, as opposed to the previous disposable suits, of which an employee would use and discard about five per month.

International Paper was awarded the Leadership in Sustainability Award for Water for their Pensacola Mill/Emerald Coast Utilities Authority (ECUA) Partnership project. Through the partnership, International Paper’s containerboard mill in Pensacola, Florida receives treated effluent from ECUA that it uses in its industrial processes. This allowed International Paper to reduce its freshwater consumption, while ECUA has found a beneficial outlet for its treated effluent.

Domtar received two awards. The first was the Leadership in Sustainability Award for Sustainable Forest Management for their Marlboro FSC Partnership. FSC certification can be pricey for small landowners, but paper companies often need FSC certified fiber to meet specific customer demands. Through the Marlboro FSC Partnership, Domtar covers certification costs and pays a premium to receive certified fiber, and landowners receive advice and support in getting their wood certified.

Domtar’s second award was an Innovation in Sustainability Award for the Plymouth K-Lime Project. Their Plymouth, North Carolina mill reduced its waste stream to zero by creating K-Lime, a substitute for traditional fertilizer that consists of byproducts of the manufacturing process that were previously sent to landfill. K-Lime is all-natural and works just as well as traditional fertilizer, and Domtar provides it to farmers at a third of the cost.

Verso Corporation was also recognized with an Innovation in Sustainability Award. The Identifying and Mapping Vernal Pools on State Lands in Michigan’s Upper Peninsula project is a public-private partnership focusing on vernal pools: small, shallow, temporary bodies of water that are important for healthy forest ecosystems because they provide food, water and habitat for a number of animal and plant species. Aerial photograph interpretation and other technologies are used to identify and map vernal pools, so that they will not be overlooked and unintentionally damaged or destroyed.

These award-winning initiatives demonstrate AF&PA members’ commitment to better business practices and the sustainability of our industry, our communities, and our environment. The number of high quality project submissions continues to grow each year, representing the numerous concrete actions our industry is taking to improve the sustainability of our processes and products.

For more information about AF&PA’s Sustainability Awards program and Better Practices, Better Planet 2020 initiative, visit www.afandpa.org/sustainability.
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