Well, as I write this it’s the Presidents Day holiday here in the United States and it’s already almost the end of February and Spring is just around the corner!

I’ve been pretty busy learning a new DCS here in Port Townsend; but it’s always good to learn new things, right?

I am excited to have two new members to PUPID from South America; Director-Elect, Julian Camilo Restrepo Cifuentes, of Smurfit Kappa Colombia, in Cali, Colombia; and Program Chair, Ronaldo Ribeiro, of Cenibra, in Belo Oriente, Minas Gerais, Brasil

Ronoldo will act as the ISA PUPID liaison to the Brazilian Pulp & Paper Association (ABTCP) and is currently programming for the ABTCP Conference in October. The Call for Papers is currently out, so send in an abstract today!

As usual for the Winter “Logger” newsletter, I am republishing a paper from the just completed PaperWeek conference in Montreal. Thanks go to Sandy Beder-Miller of BTG and James Goldman of Valmet. You can see their papers by clicking on the link on page 15.

PUPID membership is holding at 316 members, down from 353 last November; but we have had eight (8) new members while losing thirty-seven (37).

We will announce the recipient of the 2017 ISA Pulp & Paper Industry Division Scholarship at the end of next month; so stay tuned! But, for you student members out there, you still have another week to apply.

Please do not hesitate to contact me at Brad S. Carlberg, P.E., CSE or to discuss how you can help PUPID.

I hope to encourage you to become more involved with the Division and to enroll more members.

Do feel free to forward the Newsletter to your friends and colleagues who may have an interest in it.
**TUNING TIP CSE PE REVIEW QUESTION:**

FLUID VELOCITY AT MAXIMUM FLOW

(Taken from the “Control Systems Engineering (CSE) Study Guide” – 5th Edition; published by ISA; Copyright 2012; ISBN: 978-1937560-03-4)

Given the following process conditions:

Water is flowing at a maximum design rate of 1100 GPM and a temperature of 125 degrees F. The system uses a carbon steel, 8 inch, schedule 40 pipe with an I.D. of 7.981 inches. What is the fluid velocity at maximum flow?

- a. 3.5 ft/sec
- b. 7.05 ft/sec
- c. 22 ft/sec
- d. 30.3 ft/sec

Find the answers to these questions on page 19

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**Calendar of Events**

Get a quick overview of the ISA PUPID events by going to the Calendar at: https://www.isa.org/division/pupid/events/

**2017 BLRBAC Meetings**

Spring Meeting: April 10 – 12, 2017

Fall Meeting: October 2 – 4, 2017

www.blrbac.org

**ABTCP 2017-50th Pulp & Paper International Congress & Exhibition**

10/23/2017 to 10/25/2017

Transamerica Expo Center

Sao Paulo, Brasil


**2017 ISA FALL LEADERS MEETING**

FRIDAY, October 28, 2017 THROUGH TUESDAY, October 30, 2017

Grand Hyatt

TAMPA, FL

Come meet your leaders & get involved!

**China Paper 2017**

24th International Exhibition & Conference

09/ /2017 to 09/ /2017

Intex Shanghai, China

http://www.chinaexhibition.com/

**2017 ISA PROCESS CONTROL & SAFETY SYMPOSIUM**

MONDAY, NOVEMBER 6, 2017 THROUGH THURSDAY, NOVEMBER 9, 2017

HOUSTON WESTCHASE MARRIOTT

HOUSTON, TX
**WELCOME TO THE 8 NEW ISA PULP & PAPER INDUSTRY DIVISION MEMBERS**

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<tr>
<th>Scott Fullington</th>
<th>Gregory Davis</th>
<th>Maggie McCoy</th>
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<td>Zhouchang Tang</td>
<td>Leonardo Ibacache</td>
<td>Rafael Antonio Turcios Romero</td>
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<td>Bill Hessner</td>
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**HERE’S A REMINDER TO THE 19 ISA PULP & PAPER INDUSTRY DIVISION MEMBERS WHO NEED TO RENEW THEIR MEMBERSHIP**

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<tr>
<th>Mark T. Hood</th>
<th>Kevin Persig</th>
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<tr>
<td>Gary Northam</td>
<td>Rick Van Fleet</td>
<td>Brant Heaton</td>
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<td>Kirk G. Huggins</td>
<td>Chad Greenfield</td>
<td>Yevgeniy Sidorov</td>
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<td>Bruce M. Munson</td>
<td>Dwight J Beard</td>
<td>Douglas Swanson</td>
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<td>Carlos Alberto Grosman</td>
<td>Richard Kirkland</td>
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<td>Gerson M. Moita</td>
<td>Roderick Williams</td>
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<td>Jimmy Allen Ormand</td>
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**HERE’S A REMINDER TO THE 14 ISA PULP & PAPER INDUSTRY DIVISION MEMBERS WHO HAVE LET THEIR MEMBERSHIP LAPSE**

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<th>David G. Belliveau</th>
<th>Robert Cox</th>
<th>Scotty D Blaylock</th>
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<td>Martin J. Troy</td>
<td>Fabricio Souza Torres</td>
<td>Jean-Guy Lagacé</td>
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<td>Michael E. Rothaupt</td>
<td>Timothy Coleman</td>
<td>Nathan Van Fleet</td>
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<td>Daljit Singh</td>
<td>Samir R. Patil</td>
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<td>Stephen Peter Tapp</td>
<td>Micheal C. Dance</td>
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**DON’T FORGET TO RENEW!**
**WHO’S DOIN’ ANYTHING?**

**Pulp digester exploded at IP’s Pensacola mill**
Published: Thu, 2017-01-26 08:47

Recently, International Paper's containerboard mill in Cantonment, Florida experienced an explosion from a pulp digester that scattered wood fiber, water and pulping liquor over the surrounding area.

On the evening of Jan. 22, International Paper Company (IP) experienced significant structural damage to the largest pulp digester as well as the power house at its Pensacola pulp and paper mill in Cantonment, Florida. No one at the mill was injured.

The incident released a mixture of wood fiber, water and pulping liquor into the surrounding community. The company has engaged contractors to develop and implement plans to clean up and dispose of the discharged material as quickly as possible.

According to IP, its primary focus is on ensuring the health and safety of our employees, contractors and neighbors and on the clean-up of the affected areas and property.

**Pennsylvania agency approves $1 million pipeline investment grant for Domtar mill conversion to natural gas**

BROCKPORT, PA, Jan. 26, 2017 (Local News) - The Commonwealth Financing Authority (CFA) has approved a $1 million state grant for Domtar Paper Company’s installation of a 3-mile pipeline to their facility in Elk County, announced Sen. Joe Scarnati (R-Jefferson).

Scarnati, who was instrumental in securing funding for the project, explained that Domtar Paper Company owns and operates the paper mill in Johnsonburg Borough where the pipeline will be installed. The project will consist of converting two existing coal fired boilers to natural gas by partnering with Hunt Marcellus. In order to support the conversion to natural gas, the new three-mile gas pipeline will be constructed to supply the facility. Due to the savings of the conversion, it will allow the company to invest an additional $12 million into upgrades for the facility over the next three years. In addition, the conversion savings and efficiencies will allow the company to retain its current workforce of 355 full time jobs.

The Express - Scarnati announces $1M pipeline investment grant

**CMPC deploys more than 1,000 people to help fight 339 forest fires in Chile; nearly 10,000 ha of its own land affected**

- SANTIAGO, Chile, Jan. 27, 2017 (Press Release) -

- The Company has fought 339 forest fires. Half of them have occurred out of the company’s lands.

- 15 aircrafts (helicopters and planes) and more than a thousand people are working between the cities of Santiago and Temuco. Two more helicopters and planes will be deployed in the coming days.

- Approximately 9,700 hectares (23,970 Acres) of CMPC’s property have been affected by forest fires.

A total of 339 forest fires have been controlled since the beginning of the season by 850 firemen deployed by CMPC and Forestal Mininco to help and support affected communities. More than 200 forest guards and tower watchers among other logistic and administrative people should be added to those directly fighting forest fires.

Fifty percent of forest fires fought by company personnel are located in third party lands between Maule and Araucania Regions. Many small towns and villages like Caleta Pellines, Las Cañas, Empeñador, Veguillas, Higuerillas, Nacimiento, Madroñal, Constitución y Villa La Esperanza have been helped.
WHO’S DOIN’ ANYTHING? (CONTINUED)

In terms of CMPC’s damage, affected land up to now is 9.700 Hectares (23.970 Acres), 7 times more than an average fire season.

The Company guarantees that they will continue to deploy its resources along the affected areas in order to prevent the propagation of fires. Among the resources deployed, two Kamov choppers and two Air Tractor airplanes, that will be incorporated in the next couple of days, will supplement the other 15 aircrafts already operating. Tanker trucks, bulldozers to build up firewalls and many other resources have also been distributed in key places to combat the multiple forest fires.

Clean Combustion to supply multi-fuel burner and control system to Ilim Group's Bratsk paper mill in Russia

GOTHENBURG, Sweden, Jan. 24, 2017 (Press Release) -Clean Combustion will deliver a multi-fuel burner with command and control systems and peripheral equipment such as a furnace monitoring system to JSC, Ilim Group for use in the Bratsk paper mill in Russia. Clean Combustion will act as a subcontractor to Macon AB in Sweden for the project.

Erection and commissioning are scheduled for Q2, 2017. The multi-fuel burner system will bring large operational benefits and significantly increase energy efficiency for the mill.

The Bratsk Branch of Ilim Group is a pulp and containerboard mill in Bratsk. It is one of the major producers in the Russian pulp and paper industry, traditionally supplying market pulp and containerboard to South-East Asia. They deliver products such as:

- Bleached hardwood and softwood kraft pulp
- Unbleached kraft pulp
- Kraftliner
- Wood chemicals

Nippon Paper uses wood pulp to develop new materials with the characteristics of minerals

TOKYO, Jan. 30, 2017 (Press Release) -Nippon Paper Industries Co., Ltd. (President: Fumio Manoshiro; hereinafter, "NPI") has developed functional materials that have the features and characteristics of minerals through its unique technologies of fixing and compounding particulate minerals and pulp (cellulose fibers), a raw material in paper, with each other. Through this technology, by using wood pulp as the basic material, NPI will be able to provide new materials with the variety of characteristics that minerals contain.

In the manufacturing process of ordinary paper, such as copy paper and newsprint, particles of minerals are used to enhance the whiteness, opacity and other features. However, it was not possible to use a large quantity of minerals because minerals do not bond directly with cellulose fibers, a raw material in paper.

In the manufacturing method of the new functional materials that NPI has recently developed, unlike ordinary paper, composites of mineral particles and cellulose fibers are created by densely bonding mineral particles onto the surface of cellulose fibers. By using these as raw materials, it has become possible to manufacture paper with a content ratio of up to 90% minerals. This has enabled NPI to provide new materials that have the characteristics and advantages of both minerals and paper and cellulose fibers. Moreover, the new functional materials are able to be processed into different shapes, such as wet pulp, sheets, boards (laminates) and powder, as required. They are also recycling-friendly because they use wood, which is renewable, as their raw materials. As a result, the new functional materials are expected to contribute to the development of a resource recycling sustainable society.
WHO’S DOIN’ ANYTHING? (CONTINUED)

NPI has named the new functional materials Mineral Hybrid Fiber, and has applied for trademark registration under the trademark, MinerPaTM. Going forward, NPI will seek to develop commercial products in a variety of areas, including flame retardant wallpaper and partition boards, paper towels with deodorizing and antibacterial properties and construction materials with radiation shielding effects.

Under the slogan “Shaping the future with trees,” based on the technological capabilities that NPI has developed through papermaking, NPI will continue to contribute to better living and cultural progress in the future. The new hybrid materials described above will be exhibited in NPI's exhibition booth at Neo Functional Material 2017 that is scheduled to be held at Tokyo Big Sight from Wednesday, February 15, 2017 to Friday, February 17, 2017. Please visit the exhibition and make the most of this opportunity to see NPI's actual new materials.

Borregaard receives NOK 13.9 million from Research Council of Norway for two projects on utilisation of lignin from wood

SARPSBORG, Norway, Feb. 1, 2017 (Press Release) - Borregaard has been awarded funding of NOK 13.9 million from the Research Council of Norway for two different innovation projects on the utilisation of lignin from wood. NOK 3.4 million of the funding will support a project called WOCA, which aims to develop bio-based binders for the metallurgical industry. The binders represent a sustainable alternative to the oil-based products used in this industry today. The project will run for three years, starting in 2017, and has a total budget of NOK 23.6 million. WOCA is a continuation of a Research Council-funded project in which Borregaard and Elkem have collaborated for the past three years.

A further NOK 10.5 million will go to an innovation project called Ligno2G. This project involves modifying lignin to enhance its performance in applications in areas such as agriculture and textile dyes. New, green lignin products will be able to replace petrochemical polymers. The Ligno2G project also starts in 2017, will run for four years, and has a total budget of NOK 30 million. Parts of the project will be implemented in collaboration with external partners such as the Norwegian University of Science and Technology (NTNU) and the Institute for Energy Technology (IFE).

Both projects have received funding from the NOK 950 million advertised by the Research Council for innovation projects in business and industry. The funds were allocated to 125 projects among 400 applications received. Borregaard has one of the world’s most advanced biorefineries. By using natural, sustainable raw materials, Borregaard produces advanced and environmentally friendly biochemicals and biomaterials that can replace oil-based products.

Borregaard has 1080 employees in 16 countries and is a global leader in lignin-based products. Lignin accounts for almost half of Borregaard’s sales, with plants in seven countries.

Domtar to invest $25 million in Johnsonburg paper mill and DuBois plant in Pennsylvania, shift mill to natural gas

HARRISBURG, PA, Jan. 25, 2017 (Press Release) - Governor Tom Wolf announced today that Domtar Corporation (Domtar), a company dedicated to the design, manufacture, marketing, and distribution of pulp, paper, and personal care products, will make significant infrastructure and equipment upgrades at its facilities in Johnsonburg, Elk County, and DuBois, Clearfield County – a move that will retain 438 current positions over the next three years.

“Today Domtar has renewed its commitment to both its employees and the communities in Elk and Clearfield counties,” said Governor Wolf. “The company’s decision to maintain its operations in Pennsylvania and upgrade its facilities in preparation for future growth is welcome news and I am thrilled that hundreds of jobs will be preserved for years to come.”

To remain globally competitive, Domtar plans to convert the energy supply at its paper mill at 100 Center Street, Johnsonburg Borough, Elk County, from coal to natural gas to improve the mill’s energy and water reduction, and to upgrade the facility’s boilers, turn up devices, causticizers, liquor retention tank, and threading equipment. Upgrades for the Domtar facility at 377 Satterlee Road, Sandy Township, Clearfield County, include incorporating folio palletizer controls, shrink wrapped ream packaging, and rewinder shipping dock levelers. The company plans to invest $25.3 million in projects at the two facilities. The company has committed to retention of 438 existing, full-time positions over the next three years.
WHO’S DOIN’ ANYTHING? (CONTINUED)

“Domtar is pleased with the tremendous support it has received from Governor Wolf and his administration,” said Thomas Howard, Vice President of Government Relations. “Our employees, in both Johnsonburg and DuBois, will benefit greatly from this support and we pledge to continue our long tradition of manufacturing excellence in the commonwealth.”

Domtar received a funding proposal from the Department of Community and Economic Development that includes $75,000 in WEDnetPA funding for employee training. The company also was approved by the Commonwealth Financing Authority for a $1 million Pipeline Investment Program (PIPE) grant for the installation of a three-mile natural gas pipeline to its paper mill facility in Johnsonburg Borough.

The project was coordinated by the Governor’s Action Team, an experienced group of economic development professionals who report directly to the governor and work with businesses that are considering locating or expanding in Pennsylvania, in collaboration with the North Central Pennsylvania Regional Planning and Development Corporation (NCPRESPDC).

“Domtar Corporation’s reputation as a leader in innovating fiber-based products, technologies, and services has served our region well for generations,” said Eric Bridges, NCPRESPDC Executive Director. “Success in the fiber-products industry is all about efficiency in production and agility in the marketplace. The facility and equipment upgrades at their Johnsonburg Mill along with additional investments at their DuBois Converting Center will go a long way toward ensuring Domtar Corporation remains one of our region’s most prominent economic drivers.”

Domtar Corporation is a leading provider of a wide variety of fiber-based products including communication, specialty and packaging papers, market pulp, and absorbent hygiene products. With approximately 9,850 employees serving more than 50 countries around the world, Domtar is driven by a commitment to turn sustainable wood fiber into useful products that people rely on every day.

Last year, DCED approved nearly $1.1 billion in low-interest loans, tax credits, and grants for projects across the commonwealth and secured private sector commitments for the creation and retention of more than 245,000 full-time jobs. In the same timeframe, the Governor’s Action Team completed 77 projects – creating and retaining more than 36,800 jobs.

Shandong Tranlin’s $2 billion Vastly straw pulp mill project in Virginia will require state’s first pollution cap and trade

SEVEN VALLEYS, PA, Jan. 23, 2017 (Local News) - A $2 billion paper and fertilizer plant under construction near Richmond is more than just the first U.S. venture for a Chinese company that claims to have revolutionized the papermaking process. It’s also the first project to test Virginia’s ability to add new industrial facilities to the Chesapeake Bay watershed while maintaining pollution caps set for the James River more than a decade ago.

Shandong Tranlin Paper Co., which is operating in the United States under the name Vastly, has more than 200 patents on its process to turn wheat straw from local farms into pulp for paper products and soil amendments that could then be sold to farmers.

Pulp and paper production are among the dirtiest industries in the world, releasing a variety of noxious pollutants into the air and discharging nutrients, dissolved organic matter and other contaminants into the water. But in its operations in China, Tranlin says it has eliminated many of those drawbacks. Instead, it produces unbleached paper in a fashionably brown hue as well as fertilizers from the organic residue that would otherwise be discarded as waste.

Bay Journal - New plant on James River to require 1st pollution trade of its kind in VA
WHO’S DOIN’ ANYTHING? (CONTINUED)

PM 10 tissue machine starts up at Lucart's Laval sur Vologne mill, France

LUCCA, ITALY, Jan. 12, 2017 (Press Release) - After a comprehensive rebuild supplied by Toscotec the rebuilt PM10 at Lucart Laval sur Vologne mill in France has been successfully started. The rebuild will boost the machine speed from the current 1300 mpm to 1600 mpm for the production of high-quality tissue from virgin or recycled fibers. Toscotec's turn-key supply included wire and felt section modifications, a new TT SYD-12FT, Yankee steam & condensate, and a TT MachineBrokePulper-MBP75. Complete engineering, erection, commissioning and start-up assistance were also included in the order.

The new TT SYD has replaced the existing cast iron one. The greater evaporation rate increases the production capacity and the Yankee deckle insulations allows an additional saving on steam consumption.

In 2010 Toscotec already supplied a TT SuctionPressRoll (diameter of 1045 mm). Lucart decided to go ahead with Toscotec finding in the offered technology the right solution to its need of leader tissue producer.

“This investment is a strategic step to strengthen our presence in Central Europe and is part of our integrated strategy of reducing energy consumption in our paper making process” said Massimo Pasquini, Lucart Group CEO.

“We are happy to continue to support Lucart. Our technology is the right partner for its mission which sets continuous innovation, overall product quality, respect for the environment and total client orientation as fundamental values. The same which Toscotec is clearly inspired since its foundation.” said Marco Dalle Piagge, Sales Director of Toscotec Spa.

About Lucart

Lucart Group is Europe’s largest producer of thin MG paper for flexible packaging and is one of the top European manufacturers of paper, airlaid and tissue products. More than 60 years of experience have allowed Lucart to develop the necessary know-how and technology to create quality products that can satisfy customers' requirements. The production capacity of Lucart Group is 300,000 tons/year with 10 paper machines and 55 converting lines. The consolidated turnover is around 400 million euro and the number of employees is around 1,300.

About Toscotec

Toscotec is a turnkey projects supplier to the global paper industry. Since 1948, the company offers complete production lines, plant retrofits, turnkey projects and individual machineries for the tissue, paper and board. Toscotec serves all the leading paper producers with customized solutions, leveraging on the experience gained in more than 60 years of activities.
KBR to continue delivering industrial maintenance services at International Paper's Svetogorsk mill in Russia

HOUSTON, TX, Jan. 12, 2017 (Marketwired) - KBR, Inc. (KBR) announced today it has been awarded a contract for maintenance, planning and industrial services by International Paper (IP), a global producer of renewable packaging and paper products. The contract will be performed over the next four years.

Under the new contract, KBR will provide industrial maintenance services of around 700,000 labor hours at IP's offices in Svetogorsk, Russia. This contract is a continuation of KBR's long-standing service providing maintenance services for IP globally.

"KBR was awarded this contract based on its successful track record for reliable excellence in delivery over the past ten years for IP," said Jay Ibrahim, President of Europe, Middle East & Africa. "KBR has consistently provided high quality work on a full range of total maintenance services, increasing production and reliability of the Svetogorsk mill."

"KBR is proud to continue delivering world class industrial services essential to the long-term success of the Svetogorsk mill and for the benefit of our clients," continued Ibrahim.

Revenue associated with this contract is estimated to be over USD $40 million and will be booked into backlog of unfulfilled orders for KBR's E&C Business Segment in Q1 of 2017.

About KBR, Inc.

KBR is a global provider of differentiated professional services and technologies across the asset and program life cycle within the Hydrocarbons and Government Services Sectors. KBR employs over 31,000 people worldwide, with customers in more than 80 countries, and operations in 40 countries, across three synergistic global businesses:

Government Services, serving government customers globally, including capabilities that cover the full life-cycle of defense, space, aviation and other government programs and missions from research and development, through systems engineering, test and evaluation, program management, to operations, maintenance, and field logistics

Technology & Consulting, including proprietary technology focused on the monetization of hydrocarbons (especially natural gas and natural gas liquids) in ethylene and petrochemicals; ammonia, nitric acid and fertilizers; oil refining; gasification; oil and gas consulting; integrity management; naval architecture and proprietary hulls; and downstream consulting

Engineering & Construction, including onshore oil and gas; LNG (liquefaction and regasification)/GTL; oil refining; petrochemicals; chemicals; fertilizers; differentiated EPC; maintenance services (Brown & Root Industrial Services); offshore oil and gas (shallow-water, deep-water, subsea); floating solutions (FPU, FPSO, FLNG & FSRU) and program management

KBR is proud to work with its customers across the globe to provide technology, value-added services, integrated EPC delivery and long term operations and maintenance services to ensure consistent delivery with predictable results.
Valmet to supply a capacity increase project for Spanish board mill
ESPOO, Finland, Dec. 16, 2016 (Press Release), Valmet has received an order for a board machine capacity increase upgrade and a three year paper machine clothing agreement from Matías Gomá Tomás S.A.’s board mill in La Riba, Catalonia, Spain. The delivery of the capacity increase project is scheduled to take place by the end of 2016 and the start-up to be in the end of February 2017.

The order was included in Valmet's third quarter 2016 orders received. The value of an upgrade of this scope is usually valued around EUR 4 million excluding the paper machine clothing agreement.

The target of the rebuild is to increase production capacity and production speed by improving runnability, reducing breaks and increasing drying capacity.

"Valmet's wide offering and good work during the study phase, providing our mill a suitable technical solution according to our requirements, made us to choose Valmet as the key supplier to our project. I want to highlight the great collaboration with Valmet team. Our needs were fully taken into account in the solution. Having Valmet as a main partner we are confident this rebuild will to be a success," says Josep Mª Grau, Mill Manager from **Matías Gomá Tomás**.

"In this kind of an improvement project which has a wide scope we can really show our expertise in helping customer to improve their performance and reaching their targets," says **Eduardo Ruiz**, Senior Product Sales Manager, Spain.

**Technical information of the delivery**
Matías Gomá Tomás, S.A. produces corrugated board and linerboard with 5.0 m wide board machine with the top speed of 350 m/min.

Valmet's delivery for the capacity increase includes a new pick-up felt loop, perforated uhle box covers, hood ventilation upgrade, steam and condensate system upgrade and additional drying cylinders.

**About the customer Matías Gomá Tomás, S.A.**
Matías Gomá Tomás belongs to Grupondunova Group. Grupondunova is one of the main corrugated cardboard manufacturing groups in Catalonia, Spain.
WHO’S DOIN’ ANYTHING? (CONTINUED)

Quebec’s largest greenhouse inaugurated after $100 million investment; power supplied by Resolute pulp mill

SAINT-FÉLICIEN, QC, Dec. 14, 2016 (CNW) - Toundra Greenhouse management, accompanied by the Premier of Quebec and several officials and partners, officially inaugurated the greenhouse complex destined to become the largest in Quebec.

Toundra Greenhouse is a cucumber-growing complex and four-phase project, which, upon completion, will have absorbed an investment of $100 million and created over 500 jobs. In phase 1, annual production will reach over 45 million Lebanese and English cucumbers. "For us, creating Toundra Greenhouse is an extraordinary accomplishment," said Toundra CEO Éric Dubé. "It will create jobs, diversify our local economy, and bring innovation in the form of technology and energy efficiency."

The achievement of this ambitious project required the participation of local investors who understand the major challenges facing rural communities. The President and Chief Executive Officer of Resolute Forest Products, Richard Garneau, was inspired by the innovative efforts being developed in the region to ensure its economic diversification. He joined the group in spring 2013. "What's unique about this greenhouse complex is that it covers 25% of its heating needs by using heat waste from Resolute's Saint-Félicien pulp mill. At full capacity, reusing heat waste from Resolute's cogeneration facilities as an alternative heat source will allow Toundra Greenhouse to lower its heating costs while enabling the mill to reduce its annual greenhouse gas emissions at a rate equivalent to removing more than 2,000 vehicles from the road per year," said Mr. Garneau.

Known in the business community as entrepreneurs who value regional development, Bertrand Fradet and his daughters Caroline and Isabelle seized the opportunity to invest in this project to ensure its success. "Our company's ultimate goal is to make Quebec a self-sufficient producer of the vegetables it consumes, thereby reducing imports from outside the province," explained Caroline Fradet, Senior Vice President of Toundra Greenhouse. "It's an innovative project because of the technology it uses, and especially because of its crucial synergy with our neighbour, the Resolute pulp mill."

The Quebec government, and in particular Premier Philippe Couillard, also played a key role in Toundra Greenhouse's creation, making every effort to see it come to life. Mr. Couillard believes it is absolutely essential for Quebec's regions, and especially for Saguenay-Lac-Saint-Jean, to have men and women who believe in the potential of their regions.

Toundra Greenhouse was also fortunate enough to have another key partner: Denis Lebel, Member of Parliament for Lac-Saint-Jean. An important figure in the federal government, Denis Lebel eagerly agreed to contribute his experience and energy to the project.

It is important to mention that over 50 Saguenay-Lac-Saint-Jean businesses played a role in developing this project and making it a success. We also owe the success of this project to the invaluable support of Sobeys Québec, who will distribute the majority of Toundra's production in its 420 points of sale.

Now that production has begun, Toundra Greenhouse will be able to compete with Mexico, California, Spain and Ontario, who, until now, supplied 95% of the cucumbers consumed in Quebec. "We have built the most technologically advanced greenhouse complex in Canada," said Mr. Dubé with pride. "After over two years of hard work, we can finally say—mission accomplished!"

Toundra Greenhouse uses Dutch technology, the world's best greenhouse production technology in terms of productivity and reduced environmental impact. For more information, visit www.serrestoundra.com.

For further details on the official inauguration of Toundra Greenhouse, read the various stakeholder press releases posted on The Resolute Blog.
**WHO’S DOIN’ ANYTHING?** *(CONTINUED)*

Valmet to supply key technology for Sun Paper's new Muang Phin dissolving pulp mill in Laos

ESPOO, Finland, Dec. 16, 2016 (Press Release) - Valmet will deliver key technology for a new green field dissolving pulp mill to Sun Paper's new investment in Laos. The mill site, Muang Phin, is located in the southern province of Savanakhet. The target is to start pulp production during the 2nd quarter of 2018.

The order is included in Valmet's fourth quarter 2016 orders received. The value of the order is around EUR 20 million.

"This is our first international investment where we are expanding beyond China. Laos has shown to be a good location for this mill from where we will supply high profit dissolving to China. China is an important market for dissolving pulp and we expect to gain higher profits from dissolving pulp compared to kraft pulp in China," says Liu Yanbo, Mill Manager at Sun Paper.

"We are very pleased to start this dissolving pulp mill project together with Sun Paper. Valmet has long experience and a wide scope of technologies in supplying equipment and processes for the production of dissolving pulp for various end products. Together with our customer we will create a mill producing pure high-quality pulp," says Pasi Mäkelä, Vice President, Pulp Mill Sales at Valmet.

Valmet has strong market position and is systematically increasing its presence at the Asia Pacific region. All of Valmet's businesses are present in the area and in 2015 it represented about 13% of Valmet's net sales, excluding China that represented another 10% of Valmet's net sales. Valmet has 10 service points in the area and is opening a new services center in Indonesia in 2017.

**Technical details about the delivery**

Valmet delivery to Sun Paper's new 250 kt/year dissolving pulp mill in Laos includes key technology for various process areas. Valmet's scope of supply includes batch cooking with engineering package, brown stock and bleaching presses for the fiber line, wood powder firing, belt dryer and lime kiln. Valmet also establishes site services for all goods delivered.

The batch cooking is an ideal fit for this kind of dissolving pulp production. In batch cooking the process can utilize raw materials with varying quality. The wood powder firing solution provides fuel for the lime kiln solution and reduces the need for fossil fuels. This wood powder firing implementation is first of its kind in the Asia Pacific region.

**About the customer Sun Paper**

Sun Paper is one of the biggest private enterprises in China, the biggest high class coated wrapping board production base and the leading enterprise of food wrapping paper board. The business of Sun Paper covers many fields such as papermaking, chemical industry, foreign trade, power, scientific research, forestry and paper industry, hotel, investment, textiles, and food. The company has more than 10,000 employees, and the annual pulp and paper production capacity of Sun Paper is around 5.7 million tons.

Valmet is the leading global developer and supplier of process technologies, automation and services for the pulp, paper and energy industries. We aim to become the global champion in serving our customers.

Valmet's strong technology offering includes pulp mills, tissue, board and paper production lines, as well as power plants for bioenergy production. Our advanced services and automation solutions improve the reliability and performance of our customers' processes and enhance the effective utilization of raw materials and energy.

Valmet's net sales in 2015 were approximately EUR 2.9 billion. Our 12,000 professionals around the world work close to our customers and are committed to moving our customers' performance forward - every day. Valmet's head office is in Espoo, Finland and its shares are listed on the Nasdaq Helsinki.
WHO’S DOIN’ ANYTHING? (CONTINUED)

APP achieves gold recognition level for sustainability from EcoVadis; placed in top 4% in supplier sustainability rating

TORONTO, ON, Nov. 29, 2016 (Press Release) - Asia Pulp and Paper (APP), one of the world’s largest pulp and paper companies, has achieved a Gold Recognition Level for sustainability from EcoVadis, placing the company at the top 4% of suppliers in the category of pulp, paper and paperboard manufacturing industry.

EcoVadis operates the first collaborative platform for 150 multinational companies enabling them to benchmark and monitor the sustainable performance of their suppliers with easy-to-use CSR scorecards helping procurement teams to monitor their suppliers’ environmental, social and ethical practices across 150 purchasing categories and 110 countries. The Ecovadis performance survey is based on international sustainable development standards and supervised by a scientific committee of CSR and Supply Chain experts, to ensure reliable assessments.

APP was ranked in the top 5% for environmental performance and in the top 15% for Fair Business Practices and Supply Chain, among other categories. The rating and scorecard benchmarked APP against several companies operating within the same industry.

About Asia Pulp & Paper

Asia Pulp & Paper Group (APP) is a trade name for a group of pulp and paper manufacturing companies in Indonesia and China. APP is responsible for delivering quality products to meet the growing global demand for tissue, packaging and paper. On any given day, our products find their way into the hands of consumers in various branded forms from all over the world.

Started in 1972 with Tjiwi Kimia producing caustic soda, now we run operations across Indonesia and China with an annual combined pulp, paper, packaging product and converting capacity of over 19 million tons per annum. Today, APP markets its products in more than 120 countries across six continents.

Over the years, we have expanded our operations significantly through the acquisition and expansion of several of our pulp and paper mills. It’s our commitment to customer satisfaction that enables us to grow our share in paper sales worldwide and broaden our presence through offices in many countries. We believe ‘tradition and modernity go hand in hand’ which means we value long term relationships as part of our Eastern traditions, while we also are eager to embrace the modern values of innovation and efficiency.

Maintaining the integrity of our supply chain is also crucial to APP’s operations as well as our commitment to our Sustainability Roadmap Vision 2020.
## 2017 Pulp & Paper Industry Division Calendar

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**Conferences**
- ISA SLM
- ISA FLM
- ISA Symposium
- ISA Symposium
- ISA Symposium

**Holidays**
- Independence Day
- Memorial Day
- Labor Day
- Christmas
- New Year’s Day

**US Tax Day**
- January 17, 2017
- April 18, 2017
- May 29, 2017
- June 29, 2017
- July 4, 2017
- August 29, 2017
"Auditing Your Lab to Insure Sensor Reliability"
Sandy Beder-Miller, BTG

"Useful Advanced Bleach Plant Measurements"
James Goldman, Valmet

Originally presented at the 2017 Paperweek Canada Conference at the Sheraton Centre Hotel in Montreal on Tuesday, February 14, 2017
LETTERS TO THE EDITOR

Brad,
A meeting of the ISA (Brazil - SP) and ABTCP (Brazilian Technical Association of Pulp and Paper) took place last Friday, in which the following issues were discussed:

1. Mr. Takai and Simonacci explained to ABTCP that ISA's focus is the activities related to Instrumentation and Automation and also explained how ISA Brazil is doing.

2. Mr. Dârcio explained that ABTCP's activities are similar to those of ISA, however, covering all activities related to the pulp and paper industries in Brazil.

3. Ms. Viviane commented that there is a Technical Maintenance and Automation Commission at ABTCP and that ABTCP is responsible for the agenda of activities such as meetings and events in this specialty.

4. It was suggested by Mr. Ribeiro the rapprochement between the two institutions in order to improve the dissemination of the technical information of the Instrumentation and Automation specialties within the pulp and paper sector and to get more attuned to the events with the participation of the two institutions.

5. ABTCP has planned for April, at Fibria Celulose (Aracruz Unit), an event to deal with industry 4.0 applications in the sector. The ISA should indicate for this event a speaker to talk about the subject and also about the responsibilities of the ISA in the standardization of industrial communication protocols (Responsibles, Takai, Simonacci and Ribeiro).

6. The ABTCP will hold the annual congress in October 2017 and the call for technical papers is already open. For this event, it was suggested that ISA participate as a partner of the event, including on the ISA Brazil website the call for papers and ISA offering a partnership in the evaluation of the technical articles registered. Mr. Simonacci will provide the access link for the technical work call on the ISA Brazil website.

7. The Technical Commission for Maintenance and Automation of ABTCP already has the 2017 agenda defined and the planned events are:
   a. 03/30/17: Virtual Work Shop: Industry 4.0;
   b. April/17: work shop industry 4.0 (Fibria);
   c. 10/05/17: Virtual work shop: Neural networks and big data;
   d. July/17: Training of Automation Engineers;
   e. September/17: Management of rich in machines and equipment.

Maybe this meeting can be commented on in the newsletter.

Thanks,

Ronaldo Neves Ribeiro
Gerente
DETIN - Departamento de Tecnologia da Informação e Telecom
Celulose Nipo-Brasileira S.A. - CENIBRA
Rodovia BR 381, km 172, Distrito Perpétuo Socorro - Belo Oriente/MG
Tel.: +55 (31) 3829-5235 | Cel.: +55 (31) 99126-8573 | www.cenibra.com.br

Send your comments on this newsletter to me at brad.carlberg@bsc-engineering.com or post a message to the ISA PUPID Technical Discussion Forum List Serve & “get something started”!

- You can reach the ISA PUPID Technical Discussion Forum List Serve by clicking this link PUPID email listserv or by going to the PUPID microsite and clicking on Email List
LINKS TO RELATED WEBSITES

ISA PULP & PAPER WEBSITE
http://www.isa.org/~pupid/

ISA PULP & PAPER TECHNICAL DISCUSSION FORUM
http://www.isa.org/scripts/lyris.pl?enter=pupid&text_mode=&lang=english

ISA TECHNICAL CONFERENCE SESSION SCHEDULE
http://www.isa.org/Template.cfm?Section=Conferences_and_Exhibitions&template=taggedpage/conferencesbydate.cfm&icid=61

PULP & PAPER RESEARCH INSTITUTE OF CANADA
http://www.paprican.ca/

TAPPI
http://www.tappi.org/

PIMA
http://www.pimaweb.com/

AMERICAN FOREST AND PAPER ASSOCIATION
http://www.afandpa.org/

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS
http://www.nspe.org/

SWEDISH ROYAL INSTITUTE OF TECHNOLOGY
http://www.pmt.kth.se
http://www.hit.fi/English/

HELSEINKI UNIVERSITY OF TECHNOLOGY
http://www.hut.fi/English/

TECHNICAL ASSOCIATION OF THE AUSTRALIAN AND NEW ZEALAND PULP &amp PAPER INDUSTRY (APPITA)

AUSTRALIAN PULP &amp PAPER INSTITUTE

ISO STANDARDS TECHNICAL COMMITTEE LIST

ISA STANDARDS COMMITTEES LISTSERVER
http://www.isa.org/shellcgi/lyris.pl?site=isa&page=topic&topic=standards+committees&text_mode=0&lang=english

QUICKIES

ISA PULP & PAPER TECHNICAL DISCUSSION FORUM
Anybody (not necessarily an ISA or PUPID member) can subscribe to the PUPID Pulp & Paper Technical Discussion Forum. To subscribe, go to the PUPID homepage at http://www.isa.org/pupid/, select "Link to the PUPID email LISTSERV" in the pick box, click "Join", and enter your email address and a password.

ISA MEMBER BENEFITS
ISA members receive benefits such as the Latest Technical Information, Professional Development Resources, Networking Opportunities, Special Bonus for Student Members, Insurance Program for Independent Contractors and Business Owners, and other personal privileges. Go to http://www.isa.org/membership/membership-benefits/ to see specific benefits.

ISA PUPID CALENDAR
Get a quick overview of ISA PUPID events by going to the Calendar at: https://www.isa.org/division/pupid/events/
WORLD CORNERS

**CANADA CORNER**
Nothing from anyone there this time!

**FAR EAST CORNER**
Nothing from anyone there this time!

**EUROPEAN CORNER**
Nothing from anyone there this time!

**FROM THE LAND OF THE MIDNIGHT SUN**
Nothing from anyone there this time!

**CENTRAL & SOUTH AMERICAN CORNER**
ISA Conferences / Symposia

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<td>2017 ISA Analysis Division Symposium (AD) Sunday, 23 Apr 2017</td>
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<td>2017 ISA POWID Symposium Tuesday, 27 Jun 2017</td>
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<td>MAY</td>
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<td>2017 Spring Leaders Meeting Saturday, 06 May - Monday, 08 May, 2017 4500 Marriott Dr Raleigh, NC 27612-3365</td>
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<td>AUG</td>
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<td>2017 ISA Water and Wastewater and Automatic Controls Symposium Tuesday, 08 Aug 2017</td>
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<td>MAY</td>
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<td>2017 Food and Pharmaceutical Industries Symposium (FPID) Tuesday, 16 May - Wednesday, 17 May, 2017 1657 Worcester Rd Framingham, MA 01701-5403</td>
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<td>District 8 Leadership Conference Saturday, 20 May 2017</td>
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<td>2017 ISA LDAR Fugitive Emissions Symposium Tuesday, 20 Jun 2017</td>
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<td>NOV</td>
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<td>63rd International Instrumentation Symposium (IIS) 2017 Monday, 06 Nov 2017</td>
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<td>2017 Process Control and Safety Symposium and Exhibition Monday, 06 Nov 2017</td>
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ANSWERS TO THE TUNING TIP

\[
Q = AV \quad \text{or} \quad V = \frac{Q}{A} \\
V = \frac{1100 \text{ gal}}{\text{min}} \cdot \frac{1 \text{ ft}^3}{7.48 \text{ gal}} \cdot \frac{1 \text{ min}}{60 \text{ sec}} \\
= \pi \left( \frac{7.981}{2} \right) \frac{1 \text{ in}^2}{144 \text{ in}^2} \\
= \frac{2.45}{347} \text{ ft/sec} \quad V = 7.06 \text{ ft/sec} \\
\text{Answer is } B \quad 7.05
\]
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**Environmental Chairman**
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**Standards & Practices**
Vacant

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ADDRESS CORRECTION REQUESTED