Editors Message

By Brad S. Carlberg, P.E., CSE
Hoodsport, WA USA

Well, as I write this it is the middle of November, autumn is here and it is starting to get cold here in the Pacific Northwest of the United States.

Please go to page 15 & 16 to read the Director’s Message from PUPID Director Ronaldo Ribeiro of Cenibra.

The good news is that in the last quarter, PUPID has had 13 new members but has lost seven down to 184 regular dues-paying members; and we now have 20 members that are in active grace status.

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: SAMA DIAGRAMS USED TO DEPICT ONE-, TWO-, & THREE-ELEMENT BOILER CONTROL
(TAKEN FROM “BOILER CONTROL SYSTEMS ENGINEERING” BY G.F. (JERRY) GILMAN, 2ND EDITION; ISA; © 2010

Draw the SAMA Diagrams for the one-, two-, & three-element boiler control

Find the answers to this question on page 23

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/

ISA Strategic Leader Meeting
DoubleTree By Hilton Hotel Austin
March 6 – 9, 2020
Austin, TX

2020 BLRBAC Meetings
Spring Meeting: April 20 – 22, 2020
www.blrbac.org

PAPERCON 2020
April 26 – 29, 2020
Renaissance Atlanta Waverly Hotel & Convention Center
Atlanta, GA

11TH International Woodfiber Resource and Trade Conference
April 29-30, 2020 (Field Trip April 27-28)
Sheraton Lisboa Hotel | Lisbon, Portugal

International Chemical Recovery Conference (ICRC) 2020
May 18 - 21, 2020
Hotel Parque Balneário
Santos, São Paulo, Brasil

IEEE Pulp & Paper 2020
June, 2020
Niagara Falls, ON

2020 BLRBAC Meetings
Fall Meeting: October 5 – 7, 2020
www.blrbac.org

ISA Annual Leaders Conference 2020
October 23 – 26, 2020
LaConcha Resort
San Juan, PR
WELCOME TO THE 13 NEW ISA PULP & PAPER INDUSTRY DIVISION MEMBERS

Gliserio Chavez       Mr. Wesley Puckett       Jorge Oliveira
Mike Grabowski        Kevin Jameson          Ingrith Daniela Martinez Idrobo
Kuldeep Singh Yadav   Suriyachack Archwichai  Mabel Gabriela Catuche Imbachi
Saurabh Jain          Keitel Sakir Macias Espinoza  Robert Parsons
Mr. Philip Armstrong

HERE’S A REMINDER TO THE 20 ISA PULP & PAPER INDUSTRY DIVISION MEMBERS WHO NEED TO RENEW THEIR MEMBERSHIP

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<td>Mr. Thomas P. Barnett</td>
<td>Daniel Lee</td>
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<td>John Gill</td>
<td>Nandita Gupta</td>
<td>Marco Torres</td>
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<td>Mr. Deepak Sheshagiri Pai</td>
<td>SIMON ST. JEAN</td>
<td>Tracy Hines</td>
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<td>Mr James Clair Boyle Sr, PE</td>
<td>J C Browning</td>
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<td>Richard Gilbert</td>
<td>Caleb Liao</td>
<td>Rafael Marcelino Pires</td>
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<td>Julian Camilo Restrepo Cifuentes</td>
<td>Josué Misael Rivera Cruz</td>
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DON’T FORGET TO RENEW!

CCST question

Conductivity is most commonly measured in units of:
A. specific reluctance of the solution (mH)
B. specific resistance (ohm-cm) or specific conductance (uS/cm)
C. specific heat of the solution (BTU/gF)
D. specific gravity of the solution

CAP question

Design Freeze:
A. Is never achieved, so it is never added to the project plan.
B. Means making no changes after the completion of Front End Engineering unless strict change management procedures are followed.
C. Occurs between the Definition and System Design project phases.
D. Allows for changes to be made freely by any project team as long as they are communicated to project management.

See page 20 for the answers to the CCST and CAP questions
WHO’S DOIN’ ANYTHING?

Valmet to supply Defibrator system for Tianjin Shengsong Wood's facility in Tianjin, China

ESPOO, Finland, Nov. 14, 2019 (Press Release) - Valmet will supply Defibrator system to Tianjin Shengsong Wood Co. Ltd in Tianjin, China. The start-up of the system is planned for the middle of 2020.

The order was included in Valmet's orders received of the third quarter 2019. The value of the order will not be disclosed. “In order to further improve our product quality, we decided to replace the existing fibre production system and chose Valmet's defibrator and good machinery. We think that this will lead to excellent performance and results,” says Zhang Lijun, General Manager and shareholder, Tianjin Shengsong Wood.

“We closed this deal already in 2015 and have since then had a long-term cooperation with Tianjin Shengsong Wood. It is very positive that the customer wants to continue to invest in our products because of the added values that Valmet can offer,” says Leif Sundberg, Sales Manager, Pulp and Energy, Valmet.

Information about Valmet's delivery
Valmet's scope of supply includes an EVO 50 defibrator system.

Information about the customer Tianjin Shengsong Wood Co. Ltd.
Tianjin Shengsong Wood Co., Ltd. was founded in 2010 and is located in Baodi district, Tianjin, China. It belongs to a panelboard group corporation, which has several panelboard mills in different locations in Asia.

VALMET Corporate Communications
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 2018 were approximately EUR 3.3 billion. Our more than 13,000 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.

India paper mills utilizing technology to improve quality, association says

RAJAMAHENDRAVARAM, India, Nov. 11, 2019 (Local News) - The paper industry in India has undergone a metamorphic change and has brought in transparency in administration. It has unions but the plus point is that they are part of administration and are not aligned with any political parties.

This has helped the industry to move forward though it is a high investment area as the country has gone in for adopting advanced technology. This was the overall conclusion of the two-day seminar-cum-workshop of the Indian Pulp and Paper Technical Association (IPPTA) which concluded here on Saturday.

The Hans India - Paper mills utilising technology to improve quality: IPPTA

NORAM acquires Swedish filtration technology provider for mills CleanFlow

FORSHAGA, Sweden, Nov. 6, 2019 (Press Release) - NORAM and CleanFlow are pleased to jointly announce that NORAM has acquired CleanFlow and its line of products for green and white liquor filtration. CleanFlow is very pleased to join the NORAM Group of companies and to now be able to expand its products and services globally.

CleanFlow is a member of the world-leading bioeconomy cluster Paper Province and an innovative leader in green and white liquor filtration for pulp mills. The products use crossflow micro filtration to filter non process elements and to provide the mill's recaustizizing loop with a particle-free liquor. The modular construction works in parallel or series with existing conventional liquor filters, effectively removing bottlenecks and enabling an increase in both capacity and quality. CleanFlow's products are being increasingly used in sulphate pulp mills around the world, with the ENCE Pontevedra mill in Spain as the latest addition. To be able to better service customers in the US, Canada, South America, Europe and Asia, CleanFlow was looking for the right partner. NORAM has built a strong position in these markets and is actively positioning new products with strong service support. The ideal partner for CleanFlow.

CleanFlow's chairman, Mr. Per Olofsson, explains:

"In the past years we have seen NORAM establish itself as a well-respected supplier of cost-effective, groundbreaking solutions to the pulp industry. NORAM's deep understanding of mill processes and priorities are very much in line with ours. Together our teams will now be able to get a much wider geographical reach with a strong product portfolio."

NORAM's President, Mr. Anthony Boyd, continues:
WHO’S DOIN’ ANYTHING? (CONTINUED)

"At NORAM we are dedicated to bringing the leading pulp manufacturing products to the market and providing the industry with top quality and cost competitiveness. We have been following CleanFlow’s growth and are impressed by the results. The opportunity to now include CleanFlow into our team and our offering is a great step forward.”

CleanFlow deliver unique filtration technology for mills around the world. The method is based on microfiltration and has proven itself to be very successful. "The filter is like the pulp mill’s kidney”, Lennart Källén explains.

Willamette Falls Paper trials first run of non-wood paper grades using pulp from local agricultural waste

WEST LINN, OR, Nov. 4, 2019 (Press Release) -Willamette Falls Paper Company has made its first successful trial of non-wood paper grades using pulp from local agricultural waste – producing both coated and uncoated grades using 10% non-wood pulp fiber.

Additional machine and press trials are ongoing to refine the paper properties and specifications. However, preliminary outcomes from press room trials and initial customer feedback show very promising results. The mill expects to announce the commercial production of coated and uncoated grades by mid-November.

“We want to be the first coated paper mill to offer non-wood grades made in the U.S. and sourced with local agricultural waste, in this case, straw,” says Phil Harding, Director of Technology and Sustainability at Willamette Falls Paper Company. “Our long-term focus is sustainable papermaking, and successful trials using non-wood raw materials is another step toward this goal.”

Working with several key suppliers, including Trinseo, Willamette Falls is confident it is one step closer to developing both uncoated and coated grades that will have similar characteristics to the mill’s standard grades.

“Trinseo is pleased to partner with Willamette Falls Paper Company in the development of the first domestic non-wood containing coated papers. Finding innovative ways to increase the use of sustainable materials is a critical focus for us, the industry, and modern society, so we’re thrilled to continue our support in their development and commercialization of this new product,” said Todd Crook, North America Latex Binders business director for Trinseo.

ABOUT WILLAMETTE FALLS PAPER COMPANY, INC.

Willamette Falls Paper Company is a newly formed company that owns and operates a mill in West Linn, Oregon. The company is a non-integrated mill, capable of making coated and uncoated grades with an annual capacity of 260,000 tons. The Willamette Falls Paper Company looks to be an innovative leader in environmental paper production, including the use of non-wood fibers as an alternative pulp source.

Valmet signs multiyear agreement for continuous performance service with Whakatane Mill for its PM3 board line in New Zealand

ESPOO, Finland, Nov. 7, 2019 (Press Release) -Valmet and Whakatane Mill Ltd have signed a multiyear agreement for continuous performance service for Whakatane PM3 board line in New Zealand. The value of the agreement will not be disclosed.

The original performance agreement was signed in 2014 and was later extended for another three-year period. This renewal is the second extension with continuous and systematic development of Whakatane PM3’s productivity and quality with concrete targets regarding availability and optimization.

"Valmet is an experienced service provider and supports us to get the most out of our existing assets. Our team on site has worked closely with Valmet’s global experts over the past five years to achieve the agreed targets. Now we renew the agreement to further explore the development potential. We plan to bring the machine and our cooperation to next level,” says Peter McLaverty, Head of Continuous Improvement, Whakatane Mill Ltd.

“It is a pleasure to continue to work with the experienced and engaged team of Whakatane Mill. We have been working very closely together to explore the machine potential and deliver the results. For example, the machine availability has been improved by reducing the unplanned breakdowns, and the runnability and formation have been optimized via multi-variability control. Renewing the agreement is the best acknowledgement for our work,” says Pierre de Villiers, Mill Sales Manager, Australia and New Zealand, Valmet.

Digital space for continuous collaboration

The new feature in the renewed agreement is the utilization of Valmet Customer Portal, a digital collaboration space for real-time information sharing between customer and Valmet. The portal will be customized based on Whakatane’s requirements, and will enable both parties an easy and quick access to the visualized data.

ABOUT WHAKATANE MILL LIMITED

Whakatane Mill, owned by SIG Corporation since 2010, has one board machine and an integrated stoneground wood pulp mill. The mill produces 140,000 tonnes of liquid packaging board and folding boxboard annually.
WHO’S DOIN’ ANYTHING? (CONTINUED)

VALMET
Corporate Communications
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Valmet’s net sales in 2018 were approximately EUR 3.3 billion. Our 13,000 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.

Smurfit Kappa collaborates with Mitsubishi HiTec Paper to create new type of innovative and recyclable food-safe packaging

DUBLIN, Ireland, Nov. 6, 2019 (Press Release) - As part of its ongoing Better Planet Packaging initiative, Smurfit Kappa has collaborated with one of its partners, Mitsubishi HiTec Paper, to create a new type of innovative and recyclable food-safe packaging.
A combination of Smurfit Kappa’s expertise in paper-based packaging and Mitsubishi HiTec Paper’s strength in coated papers has led to the first product in the new range being shortlisted as a finalist in the Swiss Packaging Awards.
The outer board-based packaging was made from Smurfit Kappa’s ground-breaking MB12 packaging solution which has unique, built-in adsorption technology which protects against aromas and possible migration of substances. The inner packaging, which contains Mitsubishi HiTec Paper’s BARRICOTE barrier paper, offers protection against moisture and grease and has heat-sealing properties.
This unique solution demonstrates the possibility to create functional board-based packaging that is fully recyclable thanks to the optimised use of renewable raw materials in the barrier.
"It has been a very interesting and collaborative process for us working with Mitsubishi HiTec Paper on this project," said Lars Henriksson, VP of Product Development of the Smurfit Kappa Paper Division.
“The fibres that our industry-leading paper is made from are an excellent solution for a huge range of products due to a range of attributes, not least their inherent sustainability.”
Dr. Dieter Becker, Director of New Business Development & CSR at Mitsubishi HiTec Paper added: “As experts in specialty paper coatings, we brought our know-how in barrier and protective coatings to this process.
“Our solutions are completely free from foil, laminates, aluminium and fluorocarbons. Instead, we rely on the highest possible percentage of biodegradable resources which is why Smurfit Kappa's MB12 solution was the right one.”
HOBAKO AG, a Swiss producer of chocolate products, together with SCHELLING AG, its Swiss packaging provider, were the first to use the new board-based packaging solution which was shortlisted as a finalist in both the sustainability and technology categories of the Swiss Packaging Awards earlier this year.

BTG to upgrade consistency control and high-performance creping blades usage at Pindo Deli Pulp and Paper Mills in Indonesia

ECLEPENS, Switzerland, Nov. 6, 2019 (Press Release) - BTG has been chosen as a key partner by Pindo Deli Pulp and Paper Mills in Indonesia to further improve the consistency control and high-performance creping blades usage throughout the mill.
The program offered by BTG includes an audit of the mill, consultancy to improve processes and a full competency development program. To ensure sustainability and full autonomy, roughly 500 operators were trained by a team of BTG international experts.
Pindo Deli Pulp and Paper Mills is the Indonesia Market leader in Tissue making, producing over 500,000 tons a year.
BTG Group is a differentiated supplier of consumables, instruments and software focused on delivering gains in business performance for its customers.
Sappi concludes its acquisition of Matane high yield hardwood pulp mill from Rayonier Advanced Materials

Johannesburg, Nov. 4, 2019 (Press Release) - Sappi Limited, a leading global producer of dissolving wood pulp, specialities and packaging papers, graphic papers and biomaterials, today announced that all conditions precedent relating to the acquisition of the Matane high yield hardwood pulp mill in Quebec Canada from Rayonier Advanced Materials (RYAM) have been fulfilled and closing has been completed.

The main benefits of the acquisition include:

- Increases Sappi’s pulp integration for its fast-growing packaging businesses in both North America and Europe
- Supports Sappi’s 2020 Vision to grow in higher margin growth segments
- Reduces Sappi’s cost of pulp
- Reduces the volatility of earnings through the pulp cycle
- Establishes certainty of supply for Sappi’s increasing need for high yield pulp to support its recent investments
- Will enable supply to be increased over time to Sappi’s mills in North America and Europe as demand increases and capacity expands in certain growth businesses.
- Leverages Sappi’s global pulp expertise to profitably sell market pulp to strategic customers and segments

Commenting on the transaction Steve Binnie, Chief Executive Officer of Sappi Limited, said:

“I am very pleased that we have been able to finalise this acquisition so quickly. This acquisition will provide Sappi with both cost reductions and decreased volatility at a very competitive price per ton of pulp. The transaction strengthens Sappi’s pulp integration, improves our profitability and is another significant milestone towards realizing our Vision2020 goal.”

About Sappi Limited

A global leader in paper, paper pulp and dissolving wood pulp solutions, Sappi Limited (listed on the JSE - SAP), is headquartered in Johannesburg, South Africa; has over 12,000 employees; manufacturing operations on three continents, in seven countries (nine mills in Europe, three mills in America and four mills in South Africa) and customers in over 150 countries worldwide.

Sappi works closely with customers to provide relevant and sustainable paper, paper pulp, dissolving wood pulp and biomaterial products and related services and innovations. Our market-leading range of paper products includes: coated fine papers used by printers, publishers and corporate end-users; casting release papers used by suppliers to the fashion, textiles, automobile and household industries; and in our Southern African region newsprint, uncoated graphic and business papers, premium quality packaging papers and paper grade pulp. Our dissolving wood pulp products are used worldwide by converters to produce viscose fibre, pharmaceutical products as well as a wide range of household and consumer products.

In FY2018 we produced approximately: 5.7 million tons of printing and writing, speciality and packaging paper; 2.3 million tons of paper pulp, and 1.4 million tons of dissolving wood pulp.

We are investing in developing our biomaterials (nanocellulose, fibre composites and lignosulphonate) and biorefinery (second generation sugars and bio-energy) businesses.

We continue to grow into a profitable and cash-generative diversified business with an exciting future in woodfibre, a renewable resource.

Matane Mill (Gaspe Peninsula, Quebec, Canada): The mill is located on the south shore of the St. Lawrence River at the mouth of the Matane River. The mill has a capacity of 270,000 mt per annum of high yield hardwood pulp. It has 129 employees.

**Metsä Board proceeds with planned renewal of its Husum pulp mill in Sweden**

Espoo, Finland, Oct. 30, 2019 (Press Release) - Metsä Board, part of Metsä Group, announced on 26 April 2019 that it will launch a pre-engineering for the first phase of the renewal of its Husum pulp mill in Sweden. The first phase of the renewal consists of a new recovery boiler and a new turbine. Pulp production will remain on a level permitted in the current environmental permit. On 27 August 2019, the company announced that the competent authority in Sweden, Länsstyrelsen, had decided that the planned new recovery boiler will require an amendment to the environmental permit. At the same time, the company estimated that the final investment decision on the first phase of the renewal can be made in the second quarter of 2020, at the earliest.
WHO’S DOIN’ ANYTHING? (CONTINUED)

The company aims to minimize the delay in the start-up of the new recovery boiler and turbine due to the environmental permit process. This is to enable the introduction of new cleaner and more energy efficient technology as quickly as possible, and to minimize the production interruption risk related to the old recovery boilers. To reduce the delay, the company has selected the main equipment suppliers and will make certain financial commitments for the implementation phase of the project already at the end of 2019 and early 2020, although no final investment decision will be made prior to receiving the environmental permit. The total value of the commitments will be a maximum of EUR 100 million. The total value of the investment is estimated at approximately EUR 320 million. The amount includes financial commitments made prior to the investment decision.

The investment increases renewable electricity generation and reduces oil consumption

The new recovery boiler and turbine are expected to increase the Husum pulp mill’s electricity generation by about 330 gigawatt-hours per year, resulting in cost savings at current electricity prices of approximately EUR 12 million per year. In addition, the investment would reduce the amount of purchased oil. The investment would enable to extend the interval between planned maintenance shutdowns and reduce the duration of the shutdowns in the integrated mill, which would slightly increase the annual pulp and board production. The annual maintenance investments and expenses would also be lower. Through the improvements listed above combined, the investment is expected to generate an annual cash flow improvement of approximately EUR 35 million, of which approximately EUR 30 million is EBITDA improvement and EUR 5 million is reduced maintenance investments. The impact on operating profit is expected to be positive despite increasing depreciation. The company’s financing costs are expected to increase by approximately EUR 2 million per year from the start-up of the recovery boiler and turbine.

The company expects to record an impairment loss of approximately EUR 19 million on the assets of the Husum pulp mill in its 2019 financial statements.

Metsä Board

Metsä Board is a leading European producer of premium fresh fibre paperboards including folding boxboards, food service boards and white kraftliners. Our lightweight paperboards are developed to provide better, safer and more sustainable solutions for consumer goods as well as retail-ready and food service applications. We work together with our customers on a global scale to innovate solutions for better consumer experiences with less environmental impact. The pure fresh fibres Metsä Board uses are a renewable resource, traceable to origin in sustainably managed northern forests.

The global sales network of Metsä Board supports customers worldwide, including brand owners, retailers, converters and merchants. In 2018, the company’s sales totalled EUR 1.9 billion, and it has approximately 2,400 employees. Metsä Board, part of Metsä Group, is listed on the Nasdaq Helsinki.

US ‘trash is treasure in Indonesian village,’ even paper

BANGUN, Indonesia, Nov. 3, 2019 (Los Angeles Times) - Few Americans have heard of this village, wedged between peanut farms and a paper mill on the island of Java. But the people here have gained an intimate familiarity with the United States — by rooting around in its trash.

They have combed through ripped sleeves of Oreos, empty packages of Trader Joe’s meatballs, discarded “Lord of the Rings” DVDs and dented plastic shampoo bottles. They have even discovered the occasional $20 bill.


Los Angeles Times - US trash is treasure in Indonesian village

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FPAC supports plan issued by BCC to improve lives and future growth of Canada

OTTAWA, Oct. 30, 2019 (Press Release) - Earlier today, the Business Council of Canada (BCC) issued a report that calls on the country’s newly elected MPs to come together and support a forward-thinking agenda that will improve the lives of Canadians. Forest Products Association of Canada (FPAC) supports this forward-thinking and collaborative approach to securing Canada’s economic future.

Developed by the Task Force on Canada’s Economic Future, the report is the result of a national consultation process that spanned a period of nine months. It presents six practical recommendations to expand Canada’s economic potential, spur investment and job creation, and ensure a better future for all citizens. These measures include:
WHO’S DOIN’ ANYTHING? (CONTINUED)

- Modernize the regulatory system;
- Prioritize nationally significant infrastructure;
- Modernize and simplify the tax system;
- Rethink Canadian foreign policy for a changing world order;
- Increase immigration inflows to build the future labour force Canada needs; and,
- Develop a national resource and climate strategy.

“As one of Canada’s largest employers and exporters operating in more than 600 communities, our sector understands the need for a national economic plan that reflects regional priorities and strengths,” noted FPAC President and CEO, Derek Nighbor. “Canadian businesses in partnership with labour have a critical role to play when it comes to creating economic and social opportunities for Canadians, but we need government to work with us to create the conditions that will help us succeed. Showing leadership across party lines by moving forward with regulatory modernization, investing in reliable infrastructure systems, and growing a skilled labour force would be big steps in the right direction,” he added.

FPAC provides a voice for Canada’s wood, pulp, and paper producers nationally and internationally in government, trade, and environmental affairs. The $73.6-billion-a-year forest products industry represents 12 per cent of Canada’s manufacturing GDP and is one of Canada’s largest employers operating in over 600 communities, providing 230,000 direct jobs, and over 600,000 indirect jobs across the country.

**Russia’s Arkhangelsk Pulp and Paper Mill starts production of ECF kraft pulp**

NOVODVINSK, Russia, Oct. 28, 2019 (Press Release) - Starting from October 21, 2019 pulp production of Arkhangelsk PPM JSC has switched to utilization of hydrogen peroxide as a bleaching agent, thus displacing sodium hypochlorite used before. This change in the bleaching technology will let APPM fully produce bleached kraft pulp under ECF technology (without using chlorum).

The technology is a universally recognized industrial and ecological trend aimed at decrease of negative impact on the environment by means of considerable decrease of chlororganic compounds in the industrial sewage and finished product.

As told by Vladimir Moseev, head of APPM pulp production, ecologically pure product will allow to decrease adverse environmental impact owing to amelioration of ecological safety of the production, as well as to increase competitive advantage of Arkhangelsk APPM on the Russian and world market.

As previously reported, according to the development strategy APPM plans to raise total annual pulp cooking from existing 870.1 thousand tons to 1 mln tons.

**Voith to supply new kraftliner production line for SCA’s paper mill in Obbola, Sweden**

- HEIDENHEIM, Germany and UMEA, Sweden, Oct. 21, 2019 (Press Release) -
- Comprehensive project scope including BlueLine stock preparation system, XcelLine paper machine, long-term efficiency agreement and the Voith Process Line Package (PLP)
- Most innovative Papermaking 4.0 concept to increase efficiency, product quality and machine availability
- Excellent mechanical properties through a customized concept with intelligent controls

The new paper machine at the Obbola paper mill in Umeå, Sweden, will produce 725,000 tons of kraftliner per year. With a wire width of 10,200 mm and a design speed of 1,400 m/min, the PM 2 will be the most productive of its kind. The start-up of the machine is scheduled for the first quarter of 2023.

**Taking full responsibility for the entire papermaking process and project handling**

As full-line supplier for the entire papermaking process, Voith follows the Process Line Package (PLP) concept approach and assumes comprehensive responsibility for the project, covering the BlueLine stock preparation system and XcelLine paper machine. The comprehensive product scope includes detailed engineering and the supply of all subsystems and components for the process line. The PLP reduces the number of required interfaces and contact persons and simplifies the entire project handling.
WHO’S DOIN’ ANYTHING? (CONTINUED)

Highlights of the OCC plant include the IntensaPulper, the industry benchmark for energy efficient pulping, and the maintenance free InfiltraDiscfilter with BaglessPlus discs. The production line will enable industry benchmarks in kraftliner strength and convertibility to be achieved through a unique combination of proven components and intelligent controls. The multi-ply forming section with the DuoFormer Base and the MasterJet Pro headbox are tools for the online control of critical product quality criteria. The well-proven TripleNipcoFlex press section has been adapted for the production of kraftliner in order to achieve the highest production rates and surface quality levels. The CombiDuoRun dryer section, including EvoDry steel dryers and an intelligent S& C system, will ensure maximum runnability and energy efficiency. The VariFlex Performance winder incorporating SmoothRun technology will provide consistent quality rolls at maximum operational efficiency.

Long-term efficiency agreement

The long-term efficiency and service agreement will start right away. With digital applications on the existing PM 1 and a full-scale training program for the paper mill team supported by the Voith learning platform DRIVE as well as on-site services and trainings, a smooth start-up of PM 2 will be assured. The PM 2 will then be embedded in an extensive preventive maintenance program and efficiency optimization strategy for highest productivity of the production line. “We know about the growing market for paper-based packaging. Our intention is to enable our customer to achieve excellent mechanical properties through a customized concept with intelligent controls,” states Christoph Mueller-Mederer, President, Projects EMEA at Voith. “The order from SCA means for us to provide the whole package consisting of safety, service, quality and efficiency partnership as well as to take full responsibility for the process line.”

Setting standards with digitalization and innovation

The scope of supply for SCA includes the biggest and most innovative package in Voith Paper history and sets a benchmark in digitalization. The Papermaking 4.0 technologies cover products of the OnEfficiency product family, which use machine learning to increase the efficiency of the plant. Furthermore, it stabilizes and improves product and process quality. The OnCare products – with monitoring applications as well as digital services like OnCall Video and the connectivity to the Voith Paper Webshop – complement the OnCumulus IIoT platform product portfolio and provide the foundation for a digitalization of the value chain and predictive maintenance. The new paper machine thereby benefits from the full digitalization scope.

“The market’s most advanced kraftliner machine PM 2 with the best available technology will considerably improve the mill’s competitiveness, cost position and product quality,” says Mats Nordlander, President, Paper of SCA. “We see the partnership with Voith as the next step of our digitalized future.”

About the Voith Group

The Voith Group is a global technology company. With its broad portfolio of systems, products, services and digital applications, Voith sets standards in the markets of energy, oil & gas, paper, raw materials and transport & automotive. Founded in 1867, the company today has more than 19,000 employees, sales of € 4.2 billion and locations in over 60 countries worldwide and is thus one of the large family-owned companies in Europe.

The Group Division Voith Paper is part of the Voith Group. As the full-line supplier to the paper industry, it provides the largest range of technologies, services, components and products on the market and offers paper manufacturers solutions from one single source. The company’s continuous stream of innovations takes papermaking to the next level and facilitates resource-conserving production. With its Servolution concept, Voith offers its customers tailored service solutions for all sections of the production process. Voith Papermaking 4.0 ensures that equipment is optimally connected, while the secure use of generated data enables paper manufacturers to improve plant availability and efficiency.

Valmet to supply coated board machine for Graphic Packaging’s mill in Kalamazoo, MI

ESPOO, Finland, Oct. 21, 2019 (Press Release) -Valmet will supply a coated board machine for Graphic Packaging International’s (GPI) mill in Kalamazoo, Michigan, in the United States. With this investment in the latest coated board technology, GPI is committing to sustainable packaging with exceptional product quality and cost competitiveness for producing coated recycled board (CRB) grades. The start-up of the machine is scheduled for the first half of 2022. The order is included in Valmet’s orders received of the third quarter 2019. The value of the order is not disclosed.

“Valmet has offered us innovative yet proven technology to reach our high product quality targets. We have had a long and good cooperation with Valmet. Our relationship is based on mutual trust, which is very important in large projects like this one,” says Rusty Miller, Senior Vice President, Engineering and Technology, GPI.

“Valmet has a very good relationship with Graphic Packaging International, and we have had successful projects with them. We are happy to be involved in this important project to provide a new coated board machine in the United States,” says Dave King, Area President, North America, Valmet.
WHO’S DOIN’ ANYTHING? (CONTINUED)

Technical details about the delivery
The board machine will produce coated recycled board (CRB) grades (white line chip board, WLC grades) with an annual capacity of approximately 500,000 short tons which corresponds to 454,000 metric tons.

Valmet’s operations in North America
Valmet’s operations in North America support the pulp, paper and energy industries with 1,334 employees and a network of 18 service, production and sales units across the United States, Canada and Mexico. Valmet’s machines produce 86 million tons of paper, board, tissue and pulp per year. This represents 70 percent of the North American production.

Information about the customer Graphic Packaging
Graphic Packaging International, headquartered in Atlanta, Georgia, is committed to providing consumer packaging that makes a world of difference. The company is a leading provider of paper-based packaging solutions for a wide variety of products to food, beverage, foodservice, and other consumer products companies. The company operates on a global basis, is one of the largest producers of folding cartons and paper-based foodservice products in the United States, and holds leading market positions in coated recycled paperboard, coated unbleached kraft paperboard and solid bleached sulfate paperboard. The company’s net sales in 2018 were approximately USD 6 billion. It has over 70 facilities and over 17,000 employees worldwide.

ABB donates software licensing and automation expertise to Sappi Skills Centre in South Africa

WESTERVILLE, OH, Oct. 22, 2019 (Press Release) - Support and materials will help develop skillsets of employees at Sappi’s Project Vulindlela and the local community.
Technology leader ABB is donating software solutions and pulp and paper automation expertise to the Sappi Skills Centre, based in Umkomaas, South Africa near Sappi’s Saiccor Mill—the largest single site dedicated to dissolving wood pulp. The donation supports the Skills Centre, which was established by Sappi in 2018 to equip local youth with the basic technical skills needed to prepare them for meaningful employment.

The automation training system at the Sappi Skills Centre will be comprised of an Ability™ System 800xA distributed control system (DCS), which will enable employees and members of the local community to receive training on a simulated version of the production control system. It will include a fully functional 800xA DCS, as well as field instruments, I/O cabinets and I.T. equipment.

The ABB contribution to this system includes licensing for ABB Pulp and Paper Libraries and Field Information Manager as well as a training cabinet for Select I/O, ABB’s ethernet-based single channel I/O solution for ABB Ability™ System 800xA. ABB will also assist with design, engineering and configuration of the system and provision the basic simulation software and automation training services.

“We are honored to help Sappi address skills gaps in the community and work together to train the next generation of South African pulp and paper technicians,” said John Manuell, Local Business Line Manager for South Africa, ABB Process Industries. “Skills development will lead to safer operations and higher productivity as well as providing the local community with greater employment opportunities.”

“Our goal with the Sappi Skills Centre is to develop a learning campus that empowers the Umkomaas community with skills that will enable them to find meaningful employment or build their own enterprises,” said Krish Naidu, Saiccor Mill General Manager, Sappi. “ABB’s donation enables us to expand our training offer to encompass the digital skills required for the modern pulp and paper industry and helps us fulfill our vision of sustainable community development.”

ABB (ABBN: SIX Swiss Ex) is a technology leader that is driving the digital transformation of industries. With a history of innovation spanning more than 130 years, ABB has four customer-focused, globally leading businesses: Electrification, Industrial Automation, Motion, and Robotics & Discrete Automation, supported by the ABB Ability™ digital platform. ABB’s Power Grids business will be divested to Hitachi in 2020. ABB operates in more than 100 countries with about 147,000 employees. www.abb.com
**WHO’S DOIN’ ANYTHING? (CONTINUED)**

**Sappi Limited** is a global leader in paper, paper pulp and dissolving wood pulp solutions, Sappi Limited (SAP - listed on the JSE), is headquartered in Johannesburg, South Africa; has over 12,000 employees; manufacturing operations on three continents, in seven countries (nine mills in Europe, three mills in America and four mills in South Africa) and customers in over 150 countries worldwide.

**Toscotec starts up new second generation TT SYD at Toyo Paper’s paper mill in Shikokuchuo, Japan**


This is Toscotec’s sixth TT SYD to be installed in Japan, following previous installations at the Marutomi Group, Oji Group and Nishinihon Eizai paper mill.

Gabriele Martinelli, Toscotec Sales Manager Asia & Pacific, says: “It is very important for us that such a high-tech market as Japan welcomes our technology, starting from TT SYD. We are happy to see another successful start-up here at Toyo Paper and confident that this TT SYD will exceed their expectations of energy efficiency. This confirms Toscotec’s presence in the Japanese market, where we are recognized as a first-rate manufacturer of advanced tissue technology”.

TT SYD's superior drying capacity makes it the most competitive choice in the market. In order to guarantee increasingly higher performances, Toscotec continuously upgrades the design of its TT SYD, by optimizing its geometry and heat transfer efficiency.

**Sappi North America announces partnership with American Forest Foundation and GreenBlue on new forest sustainability platform**

BOSTON, Oct. 23, 2019 (PRNewswire) - Sappi North America, Inc., a leading producer and supplier of diversified paper, packaging products and dissolving wood pulp, today announced a partnership with the nonprofit organizations American Forest Foundation (AFF) and GreenBlue to support the Forests in Focus sustainability risk assessment. The goal of Forests in Focus is to provide customers, brand owners and investors with user-friendly analyses of the sustainability strengths and risk profile of forested lands across specified landscapes.

Utilizing credible, scientific-based information gathered by third parties, the platform is designed to complement existing forest certification programs and provide an account of sustainability for U.S. woodbaskets, in the context of global supply systems. As an early adopter and investor in the program, Sappi will leverage the new technology to support and validate its sustainability claims and to monitor risks and further strengthen its supply chain.

"Continuously improving and strengthening our sustainability practices is a foundational principle for Sappi, particularly within our forestry initiatives. It’s imperative that we understand and advocate for the benefits of responsible forest management within the context of the renewable and low-risk nature of U.S. woodbaskets. This platform is a step forward and will provide the industry with data-based information at a level effective for educating key stakeholders,” said Rebecca Barnard, Forest Certification Manager, Sappi North America. "Through the Forests in Focus platform we will be able to provide global customers and brand owners with scientific analyses on the condition of the forested landscape across a wide array of relevant criteria. This is especially for family owned woodlands, where there is otherwise a significant gap in information. This will enable us to provide meaningful assurances of our promise of sustainable sourcing, and reinforce our commitment to consistency and transparency."

GreenBlue’s Forest Products Working Group (FPWG) and AFF partnered to develop Forests in Focus to fill a void in sustainable sourcing. The platform utilizes a vast complex, publicly-available dataset from the U.S. Forest Service, NatureServe and other sources, and distills the information into understandable metrics and trends for companies in the forest product supply chain.

The platform empowers users to define, measure and communicate their commitment to sustainable forest management with a new level of transparency into supply chains, powered by data visualization and aggregation. In addition, Forests in Focus aims to connect industry leaders like Sappi, drive sustainable sourcing conversations forward and facilitate investment in family landowner engagement to deliver forest positive impacts. Collectively, individual and family-owned land account for more than one-third of all forests across the U.S., more forest land than the federal government manages on behalf of the public. These lands are owned by more than 21 million individual owners, in small tracts that average 67 acres in size. According to the Forest Service, these lands collectively supply more than 50 percent of the wood harvested and flowing into supply chains in the U.S.
WHO’S DOIN’ ANYTHING? (CONTINUED)

"Forests in Focus will provide more transparency to companies that source wood fiber, so they can have confidence that their supply from family woodlands is consistent with the values of sustainability and respect for the environment. This in turn will help sustain existing and support new markets for forest products for these families, giving them the income needed to continue to manage sustainably," said Tom Martin, President and CEO of AFF.

"If market forces can align around a shared understanding of the real issues facing forests in a region, the potential for positive impact is immense. Forests in Focus provides companies that opportunity," said Nina Goodrich, Executive Director of GreenBlue.

About Sappi North America, Inc.
Maintaining its position as a leader in diversified wood fiber products, Sappi North America is focused on achieving the goals set in the Sappi Group’s 2020Vision. Sappi North America employs over 2,000 individuals at its three mills, sheeting facility, Technology Center, and supporting offices across the U.S. Altogether, the sites produce 1.35 million metric tons of paper, and over 800,000 metric tons of kraft and dissolving wood pulp (DWP) annually.
Sappi North America, Inc., headquartered in Boston, is a market leader in converting wood fiber into superior products that customers demand worldwide. The success of our four diversified businesses – high-quality Coated Printing Papers, Dissolving Wood Pulp, Packaging and Specialty Papers and Casting and Release Papers – is driven by strong customer relationships, best-in-class people and advantaged assets, products and services. Our high-quality Coated Printing Papers, including McCoy, Opus, Somerset, and Flo, are the key platform for premium magazines, catalogs, books, direct mail and high-end print advertising. We are a leading manufacturer of Dissolving Wood Pulp with Verve, which is used in a wide range of products, including textile fibers and household goods. We deliver sustainable Packaging and Specialty Papers for luxury packaging and folding carton applications with our single-ply packaging brands, Spectro and Proto, and for the food and label industries with our specialty papers, LusterPrint and LusterCote. We are also one of the world’s leading suppliers of Casting and Release Papers with our Ultracast, PolyEX, and Classics lines for the automotive, fashion and engineered films industries. Customers rely on Sappi for high technical, operational and market expertise; products and services delivered with consistently high quality and reliability; and, state-of-the-art and cost-competitive assets and innovative spirit.
Sappi North America is a subsidiary of Sappi Limited (JSE), a global company headquartered in Johannesburg, South Africa, with more than 12,000 employees and manufacturing operations on three continents in seven countries and customers in over 150 countries.

Shuttered Verso paper mill owner in Maine prepares to sell on-site power plant

BUCKSPORT, ME, Oct. 14, 2019 (Bangor Daily News) - The owner of the former Verso Paper mill site is preparing to sell the site’s electrical plant to a New York-based firm for an undisclosed price.
Stonepeak Kestrel Holdings III has applied for Federal Energy Regulatory Commission approval of its plans to buy the 161-megawatt natural gas- and oil-fired generator from AIM Development USA, according to a FERC filing released Thursday. The sale would be the latest property flip performed by site owner American Iron and Metals. At one time, the site was home to Verso’s paper mill, which closed in 2014.

Bangor Daily News - Bucksport paper mill owner prepares to sell on-site power plant to NY firm
Fastmarkets RISI is not responsible for the reliability or availability of content on external websites.

ABB to supply mill-wide DCS, QCS to Gulf Ply Paper Company's new mill in Dammam, Saudi Arabia

DAMMAM, Saudi Arabia, Sept. 4, 2019 (Press Release) - ABB has been selected to supply a mill-wide distributed control system (DCS) and quality control system (QCS) for the Gulf Ply Paper Company’s new paper mill in Dammam, Saudi Arabia. Based on ABB Ability System 800xA, the solution includes ABB’s Pulp & Paper Library, providing a flexible, consistent and comprehensive means of controlling and supervising manufacturing processes when the new mill becomes operational in October 2019.
The order is ABB’s first for the Gulf Ply Paper Company and increases ABB’s customer base in Saudi Arabia.
“Our installation will help Gulf Ply to improve efficiency and ease of operation throughout the new mill with a solution that takes into account the specific needs and process requirements for a greenfield site,” said Ahmed Fathy, Regional Pulp and Paper Manager for ABB. “We look forward to enabling a successful start-up for Gulf Ply’s new mill as well as helping Gulf Ply optimize operations in the future.”
WHO’S DOIN’ ANYTHING? (CONTINUED)

GULF PLY CO. FOR PAPER MANUFACTURING LIMITED (GPP) is a Saudi Arabian company that is part of the Mohammed Al Ojaimi Group. The group was founded in 1976 by its proprietor and General Manager Mohammed Al-Ojaimi to service the electric power transmission and distribution industry for private sector and civil turnkey projects. It has more than 7,000 employees.

ABB is a technology leader that is driving the digital transformation of industries. With a history of innovation spanning more than 130 years, ABB has four customer-focused, globally leading businesses: Electrification, Industrial Automation, Motion, and Robotics & Discrete Automation, supported by the ABB Ability™ digital platform. ABB’s Power Grids business will be divested to Hitachi in 2020. ABB operates in more than 100 countries with about 147,000 employees.

BTG launches its new Single Point Charge SPC-5500 online instrument

ECLEPENS, Switzerland, Oct. 14, 2019 (Press Release) -BTG launches its new online charge instrument called Single Point Charge SPC-5500. It is considerably smaller, easier to install and easier to handle than previous products. Its single point modular design allows for greater flexibility and it comprises BTG’s expert knowledge in charge measurement. The SPC-5500 is suitable for wet-end applications in all papermaking processes such as in tissue, packaging and board or specialty paper. It is used to control key process stages like anionic trash levels in incoming thick stock streams, especially for closed loop control of fixatives. Furthermore, the effectiveness of functional additives dosed along the process can be evaluated through charge measurement. The SPC-5500 continuously measures the charge of colloidal dissolved substances in process streams. Cationic demand or anionic demand is detected by automatic titration of the sample with an oppositely charged poly-electrolyte solution. Each measurement cycle follows a cleaning which is a basis for correct results.

The BTG Group is an international provider of integrated, highly specialized process solutions for the global pulp and paper industry. BTG is committed to help its customers achieve significant, sustainable gains in business performance.

ANDRITZ acquires Sweden-based specialist provider of process technologies KEMPULP

GRAZ, Austria, Aug. 19, 2019 (Press Release) -International technology Group ANDRITZ has acquired the Swedish company KEMPULP, a specialist provider of process technologies for the chemical pulping industry. The company designs and markets technologies used in chemical pulping, including pulp washing, oxygen delignification and bleaching technologies. The acquisition includes all of KEMPULP’s intellectual property rights, technical expertise, tools, systems and inventory. The company supplies process solutions, equipment, upgrades, parts and services that complement ANDRITZ's existing offering for pulp producers.

KEMPULP has a number of well-known products and technologies in its portfolio, including the COMPACT PRESS, DualOx, Dua1Omix, DualSmix, DUFLOpump, DualD, DualDmix, DualZmix, DUFLOpump, and DynaDisc.

Joachim Schönbeck, Executive Board member of ANDRITZ AG and responsible for Pulp & Paper Capital Systems says: “KEMPULP’s products and process technologies will continue to be a strong player on the market, providing solutions that complement the ANDRITZ technologies and equipment for specific chemical pulping processes – both for new plants and upgrades to existing installations. As a result, KEMPULP’s process technologies and products will enable ANDRITZ to offer optimized solutions to the benefit of its customers.”

The KEMPULP organization will be fully integrated into the ANDRITZ Pulp & Paper organization. KEMPULP is located in Karlstad, Sweden and has approximately 30 employees.

ANDRITZ GROUP

ANDRITZ is an international technology group providing plants, systems, equipment, and services for various industries. The company is one of the technology and global market leaders in the hydropower business, the pulp and paper industry, the metal working and steel industries, and in solid/liquid separation in the municipal and industrial segments. Other important fields of business are animal feed and biomass pelleting, as well as automation, where ANDRITZ offers a wide range of innovative products and services in the IIoT (Industrial Internet of Things) sector under the brand name of Metris. In addition, the company is active in power generation (steam boiler plants, biomass power plants, recovery boilers, and gasification plants) and environmental technology (flue gas and exhaust gas cleaning plants) and offers equipment for the production of nonwovens, dissolving pulp, and panelboard, as well as recycling plants.

ANDRITZ stands for passion, partnership, perspectives and versatility – core values to which the company is committed. The listed Group is headquartered in Graz, Austria. With almost 170 years of experience, 29,600 employees, and more than 280 locations in over 40 countries worldwide, ANDRITZ is a reliable and competent partner and helps its customers to achieve their corporate and sustainability goals.
WHO’S DOIN’ ANYTHING? (CONTINUED)

ANDRITZ PULP & PAPER
ANDRITZ Pulp & Paper is a leading global supplier of complete plants, systems, equipment, and comprehensive services for the production and processing of all types of pulp, paper, board, and tissue. The technologies cover processing of logs, annual fibers, and waste paper; production of chemical pulp, mechanical pulp, and recycled fibers; recovery and reuse of chemicals; preparation of paper machine furnish; production of paper, board, and tissue; sizing, calendaring and coating of paper; as well as treatment of reject materials and sludge. The service offering includes system and machine modernization, rebuilds, spare and wear parts, on-site and workshop services, optimization of process performance, maintenance and automation solutions, as well as machine relocation and second-hand equipment. Biomass, steam and recovery boilers for power production, gasification and flue gas cleaning plants, systems and plants for the production of nonwovens and absorbent hygiene products, dissolving pulp, and panelboard (MDF), as well as recycling and shredding solutions for various waste materials also form a part of this business area.

PUPID AWARDED 2019 ISA DIVISIONS COMMUNICATIONS AWARD

For the second time in the last five years PUPID was awarded 2019 ISA Divisions Communications Award at the ISA Divisions Luncheon at the Annual Leaders Conference at the Paradise Point Resort in San Diego.

PUPID Director, Ronaldo Ribeiro of CENIBRA in Belo Oriente, MG, Brasil, accepted the award from outgoing ISA Industries & Sciences Department Vice President, Graham Nasby.

PUPID received the award in 2015 at the Fall Leaders Meeting in Louisville, Kentucky.

PUPID received the Most Improved Division in 2014 at the Fall Leaders Meeting in Kansas City, Missouri.
### 2020 ISA Pulp & Paper Industry Division Calendar

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DIRECTOR’S MESSAGE by RONALDO NEVES RIBEIRO,
TECHNICAL PAPERS

**CleanFlow Technology for Green and White Liquor Filtration**
*Rohan Bandekar*, NORAM Engineering and Rohan Constructors Ltd.
presented at the TAPPI PEERS Conference in St. Louis Monday, October 28, 2019

**Turboscrubber® - Bleach Plant Scrubber Application**
*Wayne Bucher*, NORAM Engineering and Constructors Ltd.
Presented at the TAPPI PEERS Conference in St. Louis Monday, October 28, 2019

**Use of NCGs to Produce Concentrated Sulfuric Acid and Steam**
*Rohan Bandekar*, NORAM Engineering and Constructors Ltd.
Presented at the TAPPI PEERS Conference in St. Louis Wednesday, October 30, 2019
**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.afandp.org/

**National Society of Professional Engineers**
http://www.nspe.org/

**Swedish Royal Institute of Technology**
http://www.prn.kth.se
http://www.hut.fi/English/

**Helsinki University of Technology**
http://www.hut.fi/English/

**Technical Association of the Australian and New Zealand Pulp &amp Paper Industry (APPITA)**

**Australian Pulp & 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

1. CENTRAL & SOUTH AMERICAN CORNER

Nothing from anyone there this time!

2. FAR EAST CORNER

Nothing from anyone there this time!

3. EUROPEAN CORNER

Nothing from anyone there this time!

4. FROM THE LAND OF THE MIDNIGHT SUN

Nothing from anyone there this time!

LETTERS TO THE EDITOR

• 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”!

ISA CONFERENCES / SYMPOSIA

APR 14-16 2020 IIoT & Smart Manufacturing Conference
Galveston, Texas, USA

APR 26-30 2020 Analysis Division Symposium
Long Beach, California USA
CCST Answer
The correct answer is B, “specific resistance (ohm-cm) or specific conductance (uS/cm).”
Siemens (S) is a unit of conductance that quantifies the ability of a solution to conduct current when subjected to a voltage. Conductance is the inverse of resistance.

Specific conductance is usually measured in millisiemens (mS) or microsiemens (µS).


CAP Answer
The correct answer is B, Design Freeze means “making no changes after the completion of Front-End Engineering unless strict change management procedures are followed”. One purpose of Design Freeze is to provide a point in time where the design and cost estimate are coordinated so that any further changes, additions, or modifications to scope, schedule and/or cost can be strictly monitored and controlled. The Design Freeze process is intended to prohibit runaway project costs and uncontrolled scope changes.

SOLUTION TO THE TUNING TIP

G.F. (Jerry) Gilman received his ISA Fellow in 2012 at the ISA Automation Week in Orlando, Florida. Take a look at Jerry Gilman’s powerpoint presentation from the ISA Expo 2006 in Houston.

Read “BOILER CONTROL SYSTEMS ENGINEERING” BY G.F. (JERRY) GILMAN, 2ND EDITION; ISA; © 2010

Take a look at the SAMA Diagram manual to see what the individual symbols are and how they are used.

You can draw the Single-, Two-, & three-Element as follows:

Figure 1A Single-Element Level Control

Figure 1B Single-Element Level Control

Figure 2 Two-Element Feedwater Control

Figure 3 Three-Element Feedwater Control
2019 Pulp & Paper Industry Division Officers

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